Six Instructional Best Practices for Online Engagement and Retention

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Abstract

Despite the growing popularity of online classes, lower retention rates have raised concerns about the quality of online higher education. This article outlines six instructional practices to enhance online engagement and retention. Specific strategies to build community and student centered environments are discussed.

Keywords: online education, online retention, online engagement, best practices for online instruction

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Overview

In the last ten years, the number of higher education students who participate in online learning in the United States has grown dramatically and there are no signs that the growth in online learning is slowing down (Allen & Seaman, 2011, 2012, 2013). In fall 2012, 7.1 million higher education students were taking at least one online course compared to the 1.6 million in fall 2002. This equates to an annual growth rate of 16.1 percent, which is much higher than the 2.5 percent rate for higher education overall during this same ten-year period (Allen & Seaman, 2013). Nagel (2009) predicts that by 2014, 3.55 million students will be taking all of their classes online.

The rapid expansion of access to the Internet and development of technology have made online learning not only accessible to many more learners but also the preferred method for the adult learner with work and family responsibilities (Geiger, 2010). Online education appeals to the adult learner because of the convenience of accessing higher education from anywhere as well as the ability to attend classes whenever it is convenient in an asynchronous environment (Keller, 2001). In addition, with a shrinking traditional-age learner population, there is growing acceptance for educating higher education students beyond the campus as an element of the university's mission (Rovai, 2002). In fact, 65 percent of all higher education institutions report online learning is critical to their long-term strategy (Allen & Seaman, 2012).

However, despite this high growth, lower retention rates for online learners compared to the on-campus students continue to be a concern for many (Atchley, Wingenbach, & Akers, 2013; McLaren, 2004). The issue of online student retention has raised questions about the quality of online learning and carries serious implications for the student, the higher education institution,

and the nation (Braxton, Hirschy & McClendon, 2004; Park & Choi, 2009). In fact, some have maintained that student retention is one of the greatest challenges facing online higher education (Allen & Seaman, 2013; Hu, 2011). Moreover, these concerns about retention are increasing not only with the growth of online higher education but also with the greater emphasis that government and accrediting agency bodies are placing on student outcomes (Rovai, 2003; Nagel, 2009).

The purpose of this article is to review the literature on higher education retention and some best practices related to online teaching and learning. We begin by outlining what is known about the stubbornly low student retention rates in American higher education. We continue with six online teaching "best practices" to improve online learner engagement and retention. The following six strategies reflect best practices based on our experience teaching online students in both synchronous and asynchronous formats:

1. Build *e*Community
2. Clarify online course expectations and objectives
3. Identify and employ the best online tools for interaction
4. Promote the exchange of ideas and information in the online classroom
5. Provide timely, relevant, and actionable feedback
6. Create a student-centered environment

These instructional practices have been effective for us in engaging students in the online classroom, deepening learning, and creating a robust online classroom experience.

Retention in Higher Education

Few issues in higher education have received as much attention as student retention. However, there is still much unknown. Student departure has been a long-standing problem for higher education (Braxton, Hirschy & McClendon, 2004; Geiger, 2010). The problem has been recognized in American higher education since the late 1800s and retention research studies began as early as 1926 (Braxton, 2000; Boston, Ice & Gibson, 2011). Intensifying in the 1970s and persisting through the last few decades, student retention research has resulted in a substantial body of information on student persistence. Multiple models and interventions aimed at improving retention have been proposed (Tinto, 1975, 1993; Braxton, 2000; Angelino & Natvig, 2009). Reason (2009) argues "student retention has been *the* primary goal for higher education institutions for several decades" (p. 659, author's emphasis).

Recently, government and accrediting agencies have placed a greater emphasis on higher education outcomes, including student retention (Rovai, 2003; Moody, 2004). Consequently, increasing student retention has become a goal of many higher education improvement efforts. Researchers have provided a substantial body of information on the many facets of student retention (Angelino, Williams & Natvig, 2007; Braxton, Hirschy & McClendon, 2004; Moody, 2004; Willging & Johnson, 2009). But despite decades of research, student attrition rates remain stubbornly high. Many have concluded that retention is a complex and multi-dimensional issue (Rovai & Downey, 2010). There appears to be no simple explanation or solution that helps all students complete educational goals (National Center for Educational Statistics, 2011).

With the rapid growth in online distance education, the concern regarding learner retention is increasing (Boston & Ice, 2011). Some believe one of the greatest weaknesses in online education is its lack of student retention (Herbert, 2006). Patterson and McFadden (2009) describe how attrition rates are six to seven times higher in online than in face-to-face programs and Jun (2005) argues "the big problem of e-learning is learner dropout" (p. 230). Street (2010) reports attrition rates are roughly 10% to 20% higher for online learners than face-to-face, residential students. What causes such a marked difference in retention between on-campus and online students? What are the implications for students, higher education institutions, and the nation? How much can faculty affect online student retention and how much is out of their control? There are still many questions to be answered and directions to pursue around the issue of online learner retention (Heyman, 2010; Keller, 2001).

This retention problem is especially compelling given that some have found online learning outcomes to be better than face-to-face learning outcomes. In a 2010 study, the U.S. Department of Education isolated 50 common factors across thousands of studies and concluded that, in general, online learning is more effective than face-to-face learning. This report concluded that "students in online learning conditions performed modestly better than those receiving face-to-face instruction" (U.S. Department of Education, 2010, p. ix). Findings like this led Boston and Ice (2011) to conclude "the development of models to explain online retention is considered imperative," especially since online learner retention still remains problematic (p. 1).

Administrators, policy makers, and faculty agree about the need for more retention research, which can be translated into forms of action that reduce student departure (Tinto, 2007; Park & Choi, 2009). Tinto (1993) adds that institution-specific studies are critically needed because they provide better information than national studies. He suggests research on individual institutions enhances the total understanding of persistence and departure because "only institution-specific studies … can provide insight into circumstances" (Tinto, 1993, p. 22). Scholars also concur that additional research may help build consensus regarding how to retain online learners (Hagedorn, 2006; Boston, Ice & Gibson, 2011).

Online Teaching Best Practices

When teaching online courses at the university level, one of the central concerns for many instructors is how to encourage student engagement, foster dialogue, and create a sense of community in a virtual setting that reflects what occurs in the face-to-face classroom (Shea, 2006; Glazer & Wanstreet, 2011). As the shifting nature of class discussions, student personalities, and skill levels dictate, part of the challenge of instruction at the higher education level is the ability to effectively convey the class material to a group of students and facilitate interaction. Beyond this, the variables of academic discussions, student engagement, and knowledge levels inherently demand that instructors extemporaneously not only moderate the content dialogue, but also the individual student interactions—with the material and their peers— that transpire in the brick and mortar classroom (Pittway, 2012). How can these communicative and educational intangibles that exist in the face-

to-face educational experience be recreated in the virtual classroom? There will always be obvious differences between the two formats of instruction and learning, but in many effective ways, face-to-face instructional pedagogy and practices can be adapted to create engaging and successful online courses. Through the following six practices, we have seen student engagement flourish, actual learning equal or surpass learning outcomes, and course completion excel.

Build Community. In most successful courses, the value for a sense of community fuels student investment, engagement, and motivation (Carini, Kuh, & Klein, 2006; Glazer & Wanstreet; Shea, 2006). To promote a successful learning experience and to engage students with course content, course discussion, and their peers and instructor, it is necessary to create a sense of belonging. Online students need to feel that they are part of a specific community, their contributions to the course are acknowledged and incorporated, and their participation and insights are valued. Along with accountability for the course content, a sense of class community requires student accountability in response to their peers and the instructor. These aspects develop as students are encouraged to nurture collaborative learning relationships with other members of the class (Hrastinski, 2009). In discussion, dialogue, and conversation, the nature of online instruction requires that all participants be aware of, sensitive to, and respectful towards their interaction with those around them. As in the face-to-face classroom, modeling of the desired tone and overall learning environment by the instructor leads students to follow and mimic the same timbre. With structure and modeling by

the instructor, this sense of community and accountability between class participants can occur organically in online instruction, and it positively frames and alters the way students offer their insights and manage their interactions in relation to the course material (Ritter, Polnicka, Fink, & Oescher, 2010).

Whether the online course is synchronous or asynchronous, the value of a sense of community for students inherently improves engagement and retention (Fisher & Baird, 2005; Moore, 2014). Community can be fostered through synchronous sessions using meeting software. This offers students the opportunity to have virtual real-time conversations with their peers and instructor. Depending on the length of the session, instructors may decide to meet once a week or several days during the week, replicating relatively the same time commitment students would spend attending a face-to-face course. Hearing and seeing their peers and instructor "live" allows students the immediacy of response to their questions and insights about the course material, and personalizes interactions among members of the learning environment (Cobb, 2009).

If the course is asynchronous, a sense of community can be fostered in student interaction with course content through discussion forums, assigned peer essay reviews and workshops, or small group work using institution specific course management software tools (Alrushiedat & Olfman, 2013; Powell, Jacob, & Chapman, 2012; Rockinson-Szapki, 2012). Moderation and input from the instructor becomes more important in facilitating a sense of community in an asynchronous setting. Online instructors should

encourage specific student interaction, highlight connections between student posts on discussion threads, and respond to the student-led discussions in a timely manner, as these all nurture the student-led learning community.

An instructor's ongoing presence in the online classroom is crucial for student learning and satisfaction (Angelino, Williams, & Natvig, 2007). Good communication practices will keep instructors consistently present and available to students throughout the course (Zhang, 2010; Motte, 2013). Effective communication occurs not only during the course, but also before it begins. As in face-to-face instruction, much of student success depends on setting the tone for a course and creating the type of open learning environment that allows and encourages a level of respect and trust, invites differing perspectives, spurs inquiry, and fosters engaging and challenging dialogue. In online courses, it is even more important to intentionally create the same mutual respect, openness, and integrity-filled interaction in order to continually engage and motivate students (Arbaugh, 2010).

Corresponding with students in the class soon after registration is complete and before class formally begins allows instructors to not only convey crucial information for the course structure and schedule, but also to share a sense of who they are with the students. Correspondence welcoming students to the course along with vital technical details, specs, and resources written in the tone that reflects an instructor's teaching style are important to begin building relationships with online students. Some may have taken a course online previously and some may be new to the process, so information

and openness to student questions or concerns right from the start helps all involved be cognizant and confident in diving into the course content and online structure at the beginning of the session.

If an instructor has the opportunity to meet with students either face to face or virtually for a short class orientation, this often can help in setting the tone and environment as well. A brief get-to-know-each-other introduction session with a walking tour of the course management site and any online synchronous meeting software (such as Adobe Connect), clarification of the expectations for the course, and an overview of the course syllabus, texts, and schedule is an effective way to begin creating the online learning environment and gives students an opportunity to connect and ask questions.

Similarly, it is a good practice to have an introduction forum or other "icebreaker" forum(s) available for enrolled students before the course begins and during the first days of the course so they can start interacting and get to know each other (Chlup & Collins, 2010). Instructors can post their biographies and photos then encourage students to do the same, using the forum as an opportunity to start connecting the students with the course material in a personable way. Once the course begins if not before, the instructor should acknowledge and comment on each student's introduction.

An integral aspect to any format of instruction is the symbiotic nature of delivery and moderation of course content. As the nature of online instruction relegates much of this interaction be done in writing or through meeting software, posted video lectures, voice threads, forums, and

e-mail, attention to how an instructor communicates in a professional yet welcoming personal style frames the foundation of the course tenor (Kim, Kwon, & Cho, 2011). Friendly, frequent, and responsive correspondence and interaction with students as well as encouraging this kind of exchange between members of the course inherently maintains consistency of tone and learning environment. It not only encourages peer-to-peer and instructor-student relationship, but also fosters student engagement and investment in the course and material, with an eye towards increasing overall course completion and retention (Fisher & Baird, 2005).

Clarify your online course expectations and objectives. In an online course, a comprehensive syllabus is necessary to clarify and set expectations for the nature and functioning of the course (West & Shoemaker, 2012). The syllabus should include course objectives and learning outcomes; assignments and evaluation methods, including student participation requirements or expectations; textbook information; roles or duties of faculty and students; a detailed class schedule; grading, late work, and other policies; and other course requirements. It should also include instructor contact information and availability, provide course communication instructions and guidelines (i.e., instructor e-mail or message guidelines), and set appropriate standards for instructor responsiveness and availability (e.g., response time, assignment feedback). If synchronous sessions will be part of the course, dates and times for synchronous activities should be noted as well. We recommend the syllabus be posted in the course prior to student enrollment and the course

be made available to students at least a week before it begins.

We also recommend instructors send an additional message, letter, or announcement to students before the course begins (Kranzow, 2013). This should be designed to help students prepare for the course (e.g., hardware and software requirements, a tech check, instructions for using an online lab or textbook), give them advice for being successful in the course, and encourage them to ask any questions about the functioning of the course before it starts.

During the course, instructors should use announcements or messages to provide course information and reminders on a regular basis, and address student questions and concerns promptly and thoroughly (Silverstone & Keeler, 2013). It is also important to be available for one-on-one meetings with students in real time (Ritter, Polnicka, Fink, & Oescher, 2010). Virtual meeting rooms can be used for office hours, or they can be held over the phone or Skype. Office hours can be held at designated times each week, by appointment, or through a combination of the two. Instructors should be sure to communicate their availability to their students, offer their help, and encourage students to seek it.

Especially in an online course, it is important to clarify expectations and grading criteria for assignments (Kranzow, 2013). First, clear guidelines and grading expectations for discussion or other participation should be communicated to students. They should address the expected quantity and quality of contributions, and clarify the expectations for an initial post or contribution as well as responses to classmates' contributions. These guidelines can be provided through rubrics,

assignment instructions, or other grading criteria. (Examples of guidelines and rubrics for discussion forums are included in the Appendix.) While not all interaction such as introduction forums or icebreakers needs to be graded, activities that correlate with or are clearly related to learning objectives or course outcomes should be graded.

Grading of assignments should be approached in a way that promotes both fairness and challenge to students. Fairness is achieved when instructors explain expectations and how work will be assessed before students begin their assignments by conveying the standards for evaluation in rubrics or other grading criteria, making sure students are clear about the expectations and how to earn a high grade, and using realistic and consistent methods for students to demonstrate learning (Atkinson & Siew Leng, 2013). At the same time, academic challenge is important to engage students in their work. Instructors should set high standards when grading and assess student work in regard to them. Instructor feedback should encourage students to deepen their understanding of the subject matter and further improve their skills.

Identify and employ the best online tools for interaction. In an online course, active student participation—whether synchronous or asynchronous—is tantamount for student engagement and achievement of learning outcomes (Chao, Hung, & Chen, 2012). Because the format necessitates inherent geographical distance, it is important for instructors to design, require, and facilitate student participation using a variety of tools and strategies (Stear & Mensch, 2012).

In a synchronous course, which also should always use asynchronous discussion and interaction, activities for participation are integral in the "live" virtual meetings where students can converse directly with each other and the instructor. In synchronous class sessions, use of small and large group discussion engages students directly with the course content. Various meeting software formats include tools such as a chat box, small group breakout rooms, ability to share documents, PowerPoints, video and film clips on screen, in service of increasing engagement and participation (Bradshaw & Hinton, 2004; Sher, 2009). These tools allow instructors to implement the same pedagogy and practices as they would in a face-to-face course. Encouraging students to either speak through audio capabilities or use the chat box to offer contributions to discussion not only increases student agency by giving participants choice in venue of participation, but also allows them to tailor their online learning experience to their individual learning style.

In synchronous sessions, small group breakout sessions through meeting software replicate small group activities in the traditional classroom (Kranzow, 2013; Rourke & Anderson, 2002). Use of these smaller groups not only fosters student-to-student interaction and relationships, but it inherently increases engagement in large group discussions following the activity. Instructors should give students a guided task or list of discussion questions displayed on the shared screen during the small group activities in order to maintain the focus for the session and keep student attention on the assigned material. Large group discussion sessions following small group activities then

allow a synthesis of student perspectives from small group discussions as well as instructor input and facilitation in navigating course content.

In solely asynchronous courses, instructors should structure and facilitate participation in small group activities through use of the course management site by assigning students to groups and providing clear instructions for the goals and tasks they are to complete collaboratively (Grinnell, Sauers, Appunn, 2012; Kranzow, 2013). Flexibility for the students increases for asynchronous small groups, as participants are free to schedule small group interaction and activities depending on the variables in their individual schedules. For asynchronous courses, student participation should be largely focused on discussion and response to course material and peer insights through use of forums.

Whether synchronous or asynchronous, the use of asynchronous discussion forums through course management systems should be a foundation in any online course (Nandi, Hamilton, & Harland, 2012). Asynchronous discussion is an excellent tool for creating and sustaining a high level of interaction between students and their peers, and between students and instructor (Moore, 1989). It fosters student engagement with the course material, the instructor, and classmates. It is a way for ideas to be heard, shared, and developed. It provides instructors with the opportunity to express their passion for their subject matter and inspire it in their online students. Asynchronous discussion should be a staple of any online course, regardless of the subject matter or discipline.

 Assigning daily or weekly forum posts in response to the course material is an effective and important way to encourage student agency and active learning (Amador & Mederer, 2013; Kranzow, 2013). Forums should be structured to allow students to illustrate their insights, questions, understanding, and application of and engagement with the texts, concepts, and material being presented and discussed. Requiring students to participate in and complete individual form/discussion posts as well as respond to several of their peers' posts nurtures student-to-student learning and offers class members a birds-eye view into how their peers are interacting with assigned materials. Again, this exchange of perspectives is invaluable in an online course. Asynchronous discussion is also a strong pedagogical strategy to support student-led learning, as it not only asks students to posit their individual reaction to and analysis and synthesis of course content, but it inherently asks them to place their voice in the context of the larger class perspectives. Forum posts and discussion encourages participants to dig deeper into the course material as well as build community with their peers (Davidson-Shrivers, 2009; Edelstein & Edwards, 2002; Farmer, 2004).

Promote the exchange of ideas and information in your online classroom. Rich interaction with and among students can take place through a variety of asynchronous collaboration tools, such as forums, blogs, wikis, and VoiceThread, and instructors should make liberal use of these collaboration tools to foster engagement (Bradshaw & Hinton, 2004; Sher, 2009). The great benefit of asynchronous activities is increased participation from more students (Hammick & Lee, 2013). In the face-to-face classroom it is often the same few students

who contribute, whereas the shy students are less likely to participate regardless of the value of their thoughts and ideas. Even when shyness is not a factor, many students may need more time to form their thoughts into words and may miss the chance to express them when others speak up instead. Because time and public speaking are not factors in asynchronous interaction, everyone has the opportunity to participate (Hammick & Lee, 2013). Asynchronous activities do not need to fit within a scheduled class session and do not have to end with it either. In fact, they can and often do continue 24/7. This allows students to continue to explore the readings, materials, ideas, and concepts throughout the week or unit in which the activity is held. With more time to think, reflect, develop, and find evidence for ideas, student contributions are generally thorough and well constructed.

However, the advantages of asynchronous participation do not occur without some careful forethought and planning on the part of the instructor (Nandi, Hamilton, & Harland, 2012). Instructors should take preliminary steps to ensure the interaction is effective and worthwhile. Effective interaction occurs when all students participate, take the assignment seriously, make quality contributions, and respond meaningfully to each other's ideas, and these elements should comprise the grading criteria. Either each individual discussion or activity can be graded or the course can have an overall participation grade. Individually graded assignments generally produce better results, especially for courses where discussion of texts or materials is central to the learning outcomes. However, the choice depends on the subject and nature of the course

and the relative importance that participation should take. Whichever approach is used, participation should constitute a good percentage of the course grade weight.

Furthermore, for asynchronous discussion to be effective, topics need to be well designed and structured. This requires good forethought and planning on the part of the instructor. Discussion topics should clearly relate to course and unit outcomes, provide an opportunity for students to engage with the course material, and serve as the "glue" between other assignments by providing a meaningful sequencing between them. Instructors can create topics that are well constructed to provide focus and depth to key concepts (Baker, 2013).

Repetition and shallow contributions may be negative consequences of having all students participating in discussion (Lam, 2004). Several students may share the same idea or reaction, and while only one of them (the first one to speak up) would have the chance to express it in the face-to-face classroom, all students may express it on the discussion forum. To address this challenge, instructors should create topics that cannot be exhausted in a couple of posts (e.g., interpretations, debatable issues, open-ended questions) and indicate through their grading criteria that students cannot simply express agreement with each other, but need to add other ideas in their replies to keep the conversation going. To reduce the number of posts while increasing their quality, instructors can also use small group discussion then have each group make one initial post to the full-class discussion (Maddix, 2012).

Similarly, spontaneity in the discussion may be lost or diminished, even while having the time to think and reflect before contributing makes student posts thoughtful (Tiene, 2000). To address this challenge, instructors can facilitate personal reactions and real-life applications, and present topics in a way that allows and respects multiple perspectives. Non-graded icebreakers or personal reaction questions can also be used to encourage spontaneity and keep the class fun.

Provide timely, relevant and actionable feedback. In online courses, much of the teaching consists of providing meaningful input and feedback on student work (Kranzow, 2013; Motte, 2013). Feedback on student work should be constructive, individualized, and actionable, indicating concrete steps that students can take to improve their knowledge and skills going forward. It should contain an appropriate balance of positive feedback and constructive criticism, provide thorough explanation and concrete examples of where the student's performance was lacking and how to improve it, and describe what steps the student can take to complete future assignments successfully. Students should receive feedback on an assignment with enough time to apply it to the next one. Importantly, it should be used to help all students improve their knowledge and skills regardless of level of performance.

Instructor input in asynchronous discussion is just as important as feedback on other assignments. Online asynchronous interactions are mainly student driven and promote active learning and student agency, both of which correlate with student satisfaction and positive learning outcomes (Ke & Kwak, 2013). Instructors are frequently surprised when they log into their course and observe many discussion posts ongoing without their presence. However, instructor input is still essential (Baker, 2011; Lam, 2004). The challenge for instructors is finding the right timing and amount to contribute as effective facilitators (Maddix, 2012). While students want to know the instructor is involved and receive the benefits of that expertise, the instructor's weighing in too much can discourage students. Instructors need to judge when and how they can best add value to discussion. They can contribute by conveying subject matter expertise through well placed commentary, interjecting follow-up questions to encourage more in-depth analysis of the subject matter and higher level critical thinking, asking for or presenting further or contradictory evidence or examples, and providing summary posts at the end of a discussion or activity to bring it to a logical closure and make connections between units.

Moreover, this strategy will help instructors manage the greater workload of a student-driven, 24/7, high participation discussion. Instructors should be present and effective facilitators within reasonable parameters. Instructors can pace their involvement with more follow-up questions at the beginning; more commentary later; and summary comments, discussion debrief, or unit connections at the end to acknowledge or applaud what students have done and challenge them going forward.

Create a Student-Centered Environment. A key element in the nature of online instruction is to offer students scheduling flexibility in completing their educational goals and degrees (Goddu, 2012). Thus, inherent in the structure of online courses is a need for instructor flexibility

and sensitivity not only to students' wildly varying work, school, and life schedules, but also to unforeseen situations that inevitably arise (e.g., emergencies, travel, illness, conflict with deadlines). Adult online learners often manage full-time jobs, family demands, and other personal responsibilities that initially lead them to the flexibility of online instruction and course/degree completion.

Building individual learning relationships with students that are heavily infused with flexibility and sensitivity to each student's skill level, schedule, personal concerns, and obligations positively influences and increases students' likelihood to develop a personal commitment to the material covered in the course, their involvement and confidence in participation in course activities and discussion, and their successful completion of the course (Ke & Kwak, 2013). As an increasing number of traditional students and adult-learners pursue courses and degrees online, flexibility and sensitivity to individual student schedules and situations are fundamental necessities and effective approaches to increasing student engagement and retention.

Because online courses necessitate and encourage a high percentage of individual student motivation in order to fulfill the requirements of the course, instructors should see themselves largely as learner-centered facilitators (Witt, & Scott, 2012). Instructors can iterate to participants that the course will be largely guided by learner-led activities, such as small and large group discussion, assignments, projects, presentations, and individual responses to course content through use of online forums. This also encompasses instructors using and encouraging a

"hands-on" student learning style in online courses (Ruey, 2010). Online instruction benefits from student-driven learning, activities, and discussions that encourage and focus on student engagement with the course material (London & Hall, 2011; Ruey, 2010)

In conclusion, student-to-student interaction and faculty-to-student interaction are essential in an online course and should be facilitated in a variety of ways. Instructors can foster this interaction by clearly stating their expectations or requirements for student collaboration, creating a sense of community using a variety of techniques, initiating communication with and among students in a variety of ways, modeling interaction for students, and providing ample opportunity for discussion, including forums for students to discuss class content and activities and to get help from their instructor and classmates.

Further Research Needed

The need for more research to better understand the lower retention rates for online learners is well documented (Braxton, 2000; Kasworm, Polson & Fishback, 2002; Moore, Bartkovich, Fetzner & Ison, 2002; Moody, 2004; Angelino & Natvig, 2009). Despite decades of research, there is still much we do not know about higher education retention. There is no consensus on how to define retention let alone the reasons for high attrition levels (Boyd, 2004; Street, 2010). Rovai (2003) argued that "adult persistence in an online program is a complicated response to multiple issues" where "numerous internal and external factors come into play as well as interactions between factors" (p. 12-13). One thing many would agree on is that student retention is a complex challenge, subject to

multiple factors (Allen & Seaman, 2011; Boston & Ice, 2011).

Some have observed that online education is quickly becoming part of the mainstream in higher education (Allen & Seaman, 2004). Administrators in charge of online programs continue to look to retention models for solutions. As discussed earlier, prominent retention researchers such as Tinto, Bean, Metzner, Rovai, Angelino, and Natvig provide us with models that need to be further developed and tested. Student academic and demographic characteristics such as deficiencies in academic preparation and online skills as well as age, gender, and ethnicity need to be examined more closely. Once admitted, student internal factors of self-efficiency, motivation, and time management as well as external factors of family, course design/relevance and organization, and technical support need to be further explored (Park & Chio, 2009). A more comprehensive understanding of the predictors of persistence can help with the development of the more effective online teaching methods and services for online learners.

As the number of students enrolled in online education continues to grow, online learning has the potential to bring higher education to more students than ever before (Geiger, 2010). Research is needed on special populations that could benefit from online higher education. Retention research could examine how to improve persistence for disabled students, military learners, geographically isolated students, prison populations, and other nontraditional adult learners. We might hypothesize that these populations have unique teaching and retention needs.

Continued scholarly efforts to find practical solutions to increase online learner retention are needed. Researchers need to continue to examine some of the most notable findings around online learner retention. The findings need to be replicated with larger student samples, different adult learner populations, and longitudinal evaluations. Retention for the online learner continues to be a critical issue facing higher education researchers, policymakers, and administrators as attrition for this growing student population remains stubbornly high (Tinto, 2007; Zusman, 2005).

Given our experience, we find that student engagement and agency correlates positively with student learning outcomes and retention. Therefore, we recommend studies be conducted that focus specifically on the correlation between student engagement and retention. A framework of best practices that focus on instructional activities and methods that promote engagement can provide the basis for measurement that can be used in such studies. Further research is needed to address the question of how much faculty can affect online student engagement and retention, and how much is out of their control.

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Appendix: Rubrics and Guidelines for Asynchronous Discussion

Example of rubric for Discussion assignment

Criteria	A (36-40 points) Outstanding	B (31-35 points) Proficient	C (26-30 points) Basic	D/F (0-25 points) Below Expectations
Initial Post	Fully responds to the questions and/or addresses all topics thoroughly; provides thoughtful and well developed analysis; chooses pertinent, specific examples from the readings to support ideas. (Initial post should be a minimum of 200 words.)	Responds to the questions and/or addresses all topics without fully developing answers; provides substantial analysis; uses appropriate, specific examples from the readings to support ideas.	Responds to some of the questions and/or topics; analysis is thin or commonplace; supporting specific examples are lacking or missing.	Response to questions/topics is incomplete or missing; rudimentary and superficial analysis; examples are missing or lacking; comments are speculative and unsupported.
Reply Posts	Frequent, substantive, and thoughtful responses to classmates' posts that contribute additional opinions, insights, examples, and questions, and motivate further discussion.	Responses contribute to the discussion yet lack some depth and/or do not further motivate discussion.	Replies mainly express agreement or merely repeat the ideas of a classmate's post; not sufficiently developed; do not motivate discussion.	Little or no responses that demonstrate depth and accuracy; off topic: state "I agree," without supporting comments.
Critical Thinking	Posts offer original and concrete ideas; interpretations are well supported; insightful and clear connections are made within and among readings; posts demonstrate in-depth understanding of readings.	Posts offer original ideas and/or connections but they lack depth and/or detail; posts demonstrate accurate understanding of the readings.	Few if any new ideas or connections; posts use vague generalities, rehash or summarize other postings; posts show basic understanding of the readings.	No posts or posts show inaccurate or superficial understanding of the readings.
Timeliness	All posts are completed early and throughout the discussion in time for others to read and respond to them.	All posts completed within the designated time period but some not in time for others to read and respond to them.	Some posts late (initial post and/or responses).	Posts not made within the designated time period; some or all required postings missing.
Stylistics	All posts are written in grammatically correct, formal English; use correct sentence structure and spelling; demonstrate a coherent organization of ideas.	Minor errors in grammar, spelling, or sentence structure; language too informal or colloquial; loose organization of ideas.	Number of errors in grammar, spelling or sentence structure detracts from meaning; expression of ideas is confusing or seems rushed; ideas are disorganized.	Frequent errors in spelling, grammar, and sentence structure; posts are largely incomprehensible due to mistakes; posts contain texting lingo.

Example of Instructions and Guidelines:

For a course with an overall Participation grade:

Your grade will depend on both the quality and quantity of your posts. Quality discussion posts are well written, address the topic(s) thoroughly, and offer new ideas to discussion. Your posts should provide thoughtful, well developed, and original contributions to the discussion questions or other related topics of interest. You should use specific examples from the readings to support your ideas. Your posts can be made in response to a discussion topic or in response to a classmate's post, but a quality reply post goes beyond merely expressing agreement or reiterating points already made. Contributions should further the discussion with additional examples, analyses, questions, or insights.

While there is no exact number of posts that you should make for each unit, the following grade-point scale is meant as a general guideline:

> *90-100: 3 or more quality posts per unit*
> *80-89: 2 quality posts per unit*
> *70-79: 1 quality post per unit*
> *0-69: depends on the number and quality of posts throughout the course*

For a course with individual graded discussion assignments:

For each discussion, you need to make a seed post of at least 200 words that responds to the topic and a minimum of 2 reply posts of at least 50 words that respond to your classmates' posts. You can make your seed post as the start of a new discussion thread or in response to another post or posts within a discussion thread, but it must conform to the following criteria:

Your seed post should provide thorough, thoughtful, well developed, and original contributions to the discussion topic(s). Your post should be well written with a coherent organization of your ideas. You should use examples from the readings to support your ideas. When you quote or paraphrase a specific section of the readings, please provide the page number in parentheses.

Your reply posts should provide thorough, thoughtful, and original contributions to the topic of discussion. A quality reply post goes beyond merely expressing agreement or reiterating points already made, and contributions should further the discussion with additional examples, analyses, questions, or insights. Frequent, substantive replies in a discussion will add points to your grade for that discussion.

Example of Assignment Instructions:

Steps:

1. *Complete the assigned readings and consider the discussion topics.*
2. *Choose 1 topic to write about in a post of 200-300 words.*
3. *Post your thoughts either in response to a classmate's post or as a new thread.*
4. *Make additional replies of 50-100 words to at least 2 of your classmates' posts in order to keep the discussion going.*