

A Conceptual Model for Engagement of the Online Learner

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Abstract

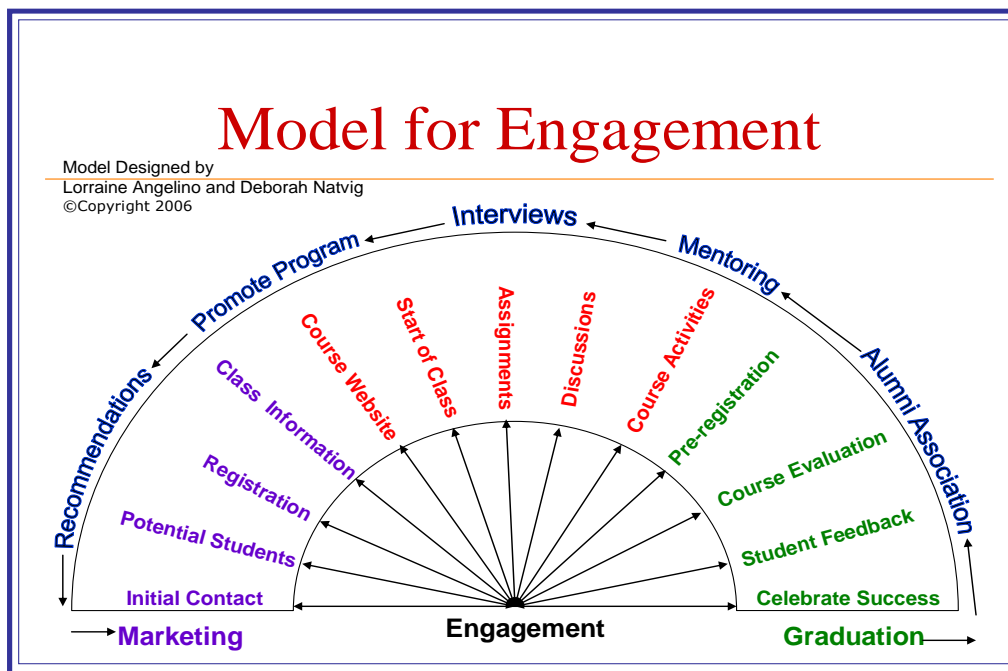
Engagement of the online learner is one approach to reduce attrition rates. Attrition rates for classes taught through distance education are 10 – 20% higher than classes taught in a face-to-face setting. This paper introduces a Model for Engagement and provides strategies to engage the online learner. The Model depicts various opportunities where student-instructor, student-student, student-content, and student-community engagement can occur. The Model is divided into four strategic areas: (a) recruitment, (b) coursework, (c) post coursework, and (d) alumni. The theoretical framework for the model is Tinto's student integration model. The conceptual design of the model is based on engagement practices from an online Health Care Management (HCMT) certificate program at a university in South Carolina.

Key Terms: Distance education, model, attrition, retention, engagement, integration, persistence, online, learning

Introduction

As the number of students taking online courses continues to increase (Allen & Seaman, 2007; Waits & Lewis, 2003), administrators and faculty members are challenged to develop an infrastructure for online learning resulting in students completing courses and programs in which they are enrolled (Allen & Seaman, 2007; Berge & Huang, 2004; Lorenzo & Moore, 2002; Moore, Sener, & Fetzner, 2006; Roach, 2002; Twigg, 2004). While attrition rates for online education are a concern in the academic community (Allen & Seaman, 2006, 2007; Berge & Huang, 2004), the literature is sparse in reporting effective strategies to properly assess students' potential for success as online learners; provide the support needed during the teaching/ learning process; and encourage students to continue in online educational programs after completion of individual courses. Administrators and instructors may benefit from a model that can guide them in designing successful programs for the online learner. The purpose of this paper is to present a conceptual Model for Engagement (see Figure 1) and practical strategies that can be used in developing online programs that will attract students and retain them once they have enrolled.

FIGURE 1: Model for Engagement (Angelino & Natvig, 2007)



The Model for Engagement provides a graphical representation of opportunities where engagement with students taking courses online can occur. Engagement in this context is defined as actively participating, interacting, and collaborating with students, faculty, course content, and members of the community (Angelino & Natvig, 2007; Palloff & Pratt, 2001). The Model is divided into four strategic areas: (a) recruitment, (b) coursework, (c) post coursework, and (d) alumni. Within each strategic area, the model presents five opportunities to engage students.

The theoretical framework for the model is Tinto's (1975) student integration model. Tinto's (1975) student integration model illustrates how academic integration and social integration can be used to increase persistence (Berge & Lyon, 2005; Rovai, 2002). The conceptual design of the model is based on engagement practices used in an online Health Care Management (HCMT) certificate program at a university in South Carolina. In designing the HCMT online certificate program, different engagement strategies were employed to encourage students to interact with faculty, other students, course content, and members of the community in an effort to engage the students in the program and reduce attrition rates. Moore (1989) introduced learner-content interaction, learner-instructor interaction, and learner-learner interaction. Moore (1989) noted, "it is vitally important that distance educators in all media do more to plan for all three kinds of interaction" (Applications Section, para. 3).

Health Care Management (HCMT) Certificate Program

The HCMT certificate program was initially designed in collaboration with a local health care organization as an educational tool for their supervisory and management level staff. The program targeted employees who did not have an educational background that provided a foundation for the supervisory and management responsibilities of their positions. The program was to provide a more structured outcome-based approach to management skill development than was being provided through traditional seminars and workshops on leadership and management. The plan was for all employees who met these criteria to be enrolled in the program.

The program proposal included the following commitment from the health care organization and the university.

1. The university would offer the two courses per semester on-site at the health care organization. Each course would be valued at three credit hours and the students would receive regular college credit for each course completed successfully with a grade of 'C' or better.
2. The health care organization would guarantee tuition for at least 15 students for each class.
3. Enrollment in the courses would be limited to employees of the health care organization.
4. The university would award a Certificate in Health Care Management after employees completed all four of the courses with a grade of 'C' or better.

Four courses were developed collaboratively by the university's health care management faculty members and representatives of the health care organization. The following courses were approved through the university curriculum approval process.

1. *Principles of Health Care Management*, which includes a study of management theory and its application in the health care setting. In this course, the development of the continuum of health care in the United States is explored.
2. *Legal, Ethical, and Regulatory Aspects of Health Care* provides an overview of the legal and regulatory issues that impact the health care industry with an emphasis on laws, regulations, and accreditation standards. The legal structure of the health care delivery system and ethical issues in patient care decisions are studied in this course.
3. *Financial Aspects of Health Care* provides an overview of financial management of hospitals and health care organizations with emphasis on financial and managerial accounting, financial analysis, and the use of financial management tools.
4. *Supervision and Human Resource Management* includes a study of methods, techniques, and skills needed to be an effective supervisor in a health care setting. The course emphasizes developing and maintaining positive relationships within the work setting.

Administrators of the health care organization did not finalize the contract between the health care organization and the university, however, partially because of the concern that the time required and commitment needed for employees to succeed were greater than most employees were willing to dedicate to the program. When it became evident that a contractual agreement would not be reached, a decision was made to make the program available to people who have work experience in the health care field or intend to pursue a leadership or management position in a health care organization. In addition, the mode of delivery was changed to an online format. The program was initially launched using the WebCT© platform, which has now changed to Blackboard©.

The HCMT certificate program commenced in fall 2003 and graduated its first class in spring 2005. Since most of the students enrolled in courses work full-time or are enrolled in a degree seeking major, the program is designed to be taken on a part-time basis, with two courses being offered each semester. Students can earn their certificate in two semesters; however, most students complete the program in three or four semesters. In addition, many students enroll in individual courses that are of interest to them and can be used as elective credits toward their major degree. These students may complete one or two of the courses in the program but are not enrolled with the intent of earning the HCMT Certificate.

The initial cohort took two years to complete the program since only one course per semester was offered in the first year. Out of the 96 students enrolled in HCMT certificate courses between fall semester 2003 and fall semester 2008, 11 students dropped a course before the end of the semester. Two of these students returned to take the courses the next time they were offered. Three of the students who dropped courses were working full-time and pursuing the online RN-BSN degree. The combined responsibilities of work and school were greater than they anticipated. Other reasons students have provided for dropping courses include: (a) the academic load is more than they anticipated (four students), (b) medical problems (two students), (c) financial aid problems (one student), and (d) computer technology problems (one student).

Literature review

Attrition rates for undergraduate, distance education courses are estimated to be 10 - 20 % higher than courses taught in a traditional classroom setting (Carr, 2000; Frankola, 2001; Moody, 2004). Terry (2001) and Lynch (2001) report attrition rates are 21 – 36 % higher for online students. While no national studies have been conducted, several colleges and universities have studied attrition and supported the premise that attrition rates were higher for online courses than traditional courses (Carr, 2000, Lynch, 2001, Nash, 2005). The definition of attrition varies among studies. Dunagan (2005) compared performance and attrition rates of over 1200 students enrolled in an introductory level geology course over a five year period. He calculated the attrition rate by using the permanent enrollment on a specific day early in the semester and the number of students who dropped or withdrew from those classes. Dunagan (2005) found that the attrition rate for online students (n=80) was 26% compared to a 5% attrition rate for traditional on campus students (n=1091).

Explorative reports on reducing attrition conjecture that student engagement is a key strategy. Early contact opens lines of communication with students and is important in retaining them in online programs. In addition, these reports indicate that educators should also assess their students to determine pre-existing knowledge and computer competency. Early and frequent contact with the students is time consuming for the instructor, but may be important to ensure that students are prepared to participate in all learning activities (Angelino, Williams, & Natvig, 2007; Minich, 1996).

Diaz and Bontenbal (2001) present a learner-centered, constructivist approach as a method of engaging the online learner in the educational learning process that relies on student participation and input in designing course objectives. Tinto (1975) found that student integration in academic and social activities led to student persistence. “Virtual icebreakers” such as welcoming students to class, introductions (Anderson, 2004), and informal chat sessions (Carnevale, 2000) are methods of engaging the student and may assist in making students feel comfortable (Angelino, et al., 2007). As students become comfortable with the instructor, their classmates, and

technology, learning communities may develop, which will allow students to work together in expanding their knowledge base. By learning together, online students may feel a stronger sense of belonging and develop relationships with other students. As students become more engaged in the educational learning process, it is anticipated that more students will be retained in online educational programs and attrition rates will decline (Angelino, et al., 2007; Rovai, 2002).

Strategies for Engagement

Recruitment

Recruitment is critical to the success of the HCMT certificate program. Retaining students from one semester to the next is also necessary. Our goals during the recruitment process are to market the program, communicate with potential students, assess the student's 'fit,' assist in the registration process, and give students enough information prior to the first day of class to make them feel comfortable with the technology and the instructor's expectations.

One marketing strategy that has been successful in increasing awareness of the program is sending letters and brochures describing the program to CEOs of all licensed hospitals and nursing homes in South Carolina during the summer. The brochures describe the HCMT certificate program, the admission process, and provide contact information for those seeking additional information. The brochures and letters also include the URL for the website for the HCMT certificate program where more information is available. Another strategy that has resulted in inquiries about the program is an ad that is placed in the SC NURSE once or twice per year. The SC NURSE is a journal published by the South Carolina Nurses Association and is sent, without charge, to all licensed nurses in South Carolina on a quarterly basis.

The HCMT Certificate courses have also been taken by several of the students who are enrolled in the RN to BSN program offered at this university. The RN to BSN program is an online program designed for licensed nurses who have completed an associate degree in nursing and are returning to school to earn their baccalaureate degree. It has been found that many nurses prefer to take one or more of the courses offered in the HCMT certificate program as their program

electives because the course content is related to their current careers or their career aspirations. The program director of the HCMT certificate program works with the program director for the RN to BSN program to ensure that all RN to BSN students receive online announcements about the HCMT certificate program and the courses that are available each semester.

During the recruitment process, communication is essential and occurs via telephone, emails, letters, or postcards. At least two weeks before the beginning of the semester, students need to know the date that classes begin, how to contact their instructor, how to logon to the course website, how to navigate the website, and how to obtain course materials. Table 1 provides a brief outline of recruitment strategies currently used to attract students to the program.

TABLE 1: Recruitment Strategies

| Engagement Opportunity | Strategies |
|-------------------------------|---|
| Marketing | <ol style="list-style-type: none"> 1. Develop a marketing strategy. 2. Identify your target market. 3. Identify demographics of potential students. 4. Focus on your niche of the market. |
| Initial Contact | <ol style="list-style-type: none"> 1. Initiate contact with or respond to potential students 2. Exchange contact information 3. Assess the student's 'fit' with the program. 4. Assess the student's 'fit' with technology. 5. Obtain commitment from qualified student. |
| Potential Students | <ol style="list-style-type: none"> 1. Assist students with admission process. 2. Provide students with financial aid resources. 3. Answer questions promptly. |
| Registration | <ol style="list-style-type: none"> 1. Assist students with registration process. 2. Clarify deadlines for registration and paying tuition fees. |
| Class Information | <ol style="list-style-type: none"> 1. Design website and post course materials early. 2. Provide students access to website at least one week before classes begin. 3. Orient students on navigating the website. |

Coursework

The course website is the focal point of all communications for the class. Instructors encourage students to visit the website at least once a day to check for announcements, emails from the instructor or from other students, and to read and post to the weekly discussions. At the beginning of class, instructors welcome the students, post an introduction, and then instruct the students to post their own introduction. This introductory process is a way to start the interaction among students and with the instructor.

Students are encouraged to seek out information to complete assignments through outside reading, internet searches, and through discussions with health care professionals. All courses include at least one assignment that requires students to interview a health care professional or visit a health care setting to obtain information.

Providing clear, detailed, step-by-step instructions for each assignment is very important. With online instruction, the instructor does not have the advantage of detecting a lack of understanding about assignments from the non-verbal clues that are observable in the traditional classroom setting. Since most questions in online courses are sent from individual students to the instructor via email, the exchange between the student and instructor is not heard or observed by other students. This eliminates the possibility that one question may trigger questions from other students since the entire class is not involved in the email exchange. Each query posed by a student about an assignment is a indicator to the instructor that the instructions may not be clear and follow-up with other students in the class may be needed.

Grades are posted as soon as work is completed by the students and graded by the instructor. Timely feedback with in-depth constructive comments on how to improve their work is provided on each individual assignment so students can improve their thinking, research, and writing skills. Timely feedback is necessary to keep the students informed of their progress and prepare them for future assignments.

The discussion portion of the courses is considered the substitute for lecture and classroom interaction. One of the strengths of the online venue is that students must actively participate in each discussion to earn credit toward their final grade, whereas traditional students meeting face-to-face may be able to attend class but not engage in classroom discussions without it adversely affecting their course grade. Students earn points toward their final grade based on the quality and quantity of their participation in weekly asynchronous discussions.

When possible, instructors customize assignments and discussion topics based on information obtained from the introductory postings. The introductions posted at the beginning of the semester provide information about the students' educational and employment background, special interests, and goals they wish to attain particularly in the work setting. Based on this information, the instructor may create assignments and discussion topics that challenge students to seek out information that will help them reach their goals.

Since one of the overall goals of the certificate program is for the students to develop leadership skills, the students are responsible to lead the weekly discussions. Each student is required to be the discussion coordinator at least once during the semester and instructors assist by coaching "behind the scenes."

While the topics of the courses are similar to those of many management and leadership courses, the uniqueness of this program is that all coursework relates directly to the health care industry. Texts are selected that focus on practical applications of leadership and management theory, principles, and processes in health care organizations. Assignments are designed to help the student gain a better understanding of how situations develop, change, and are resolved in work environments where the students currently work or plan to work. Strategies used to keep students engaged during the semester are included in Table 2.

TABLE 2: Coursework

| Engagement Opportunity | Strategies |
|-------------------------------|---|
| Course Website | <ol style="list-style-type: none"> 1. Design course website as a focal point for communication. 2. Encourage daily access to website. 3. Encourage student-to-instructor interaction. 4. Encourage student-to-student interaction. |
| Start of Class | <ol style="list-style-type: none"> 1. Welcome students as a group and individually. 2. Post introduction and encourage students to post theirs. 3. Customize assignments and discussions based on introductions. |
| Assignments | <ol style="list-style-type: none"> 1. Develop assignments that challenge the students. 2. Provide detailed instructions for each assignment. 3. Provide students with evaluation criteria for each assignment. 4. Provide detailed feedback on assignments. 5. Provide grades on assignments in a timely manner. |
| Discussions | <ol style="list-style-type: none"> 1. Design class discussions around current events. 2. Solicit and incorporate student ideas for discussion content. 3. Assign students to be the Discussion Coordinator. 4. Provide coaching for Discussion Coordinator. |
| Course Activities | <ol style="list-style-type: none"> 1. Design assignments and field activities to expand knowledge of professional environment. 2. Encourage student-to-student interaction through discussions. 3. Promote student-to-community interaction through field activities. 4. Provide student-to-instructor interaction through assignments. |

Post Coursework

At the midpoint of the semester, preliminary activities are initiated to start students thinking about their plans for the following semester. The registrar’s office notifies all students by email of the pre-registration process for the following semester along with dates when students can pre-register. The instructors notify the students of their midterm grades, and encourage the students to inform them of their intent to take another HCMT certificate course the following semester. Once the students inform the instructor of their intent to register, the online registration system is programmed to allow the students to pre-register for the designated classes. During this time,

instructors may also be involved in assisting students to complete financial aid forms so they can receive student loans or other financial assistance to cover program costs.

Near the end of the semester, students are given the opportunity to evaluate the instructor and the class. The same standardized evaluation instrument that is used in traditional on-ground courses is posted on the websites for the online courses. Student responses go to an off-site collection site and the summary of responses is not provided to instructors until after semester grades have been officially posted by the registrar's office. An additional review of the course is conducted as part on the last discussion in each HCMT Certificate course. Instructors provide an opportunity for students to discuss what they liked about the course and what they would like to see changed. This discussion is lead by the instructor and occurs only after all assignments are graded and the students have been informed of what their grades will be for the course. As part of the discussion, students are given a list of all discussion topics, assignments, other class activities, and materials used in the class and are asked to provide feedback on whether each item should be retained or changed in future semesters. Students are encouraged to comment on what aspects of the course management were most helpful to them and what they would like to see improved.

At the end of the semester, the instructor congratulates the students for completing the class and announces which students have completed all four courses and will be receiving their certificates in Health Care Management. Students also take the opportunity to congratulate the graduates and inquire about their future plans.

Graduates of the HCMT certificate program receive a certificate suitable for framing and their name is included on the university website where all students receiving degrees and certificates are listed. The Office of University Relations and Publications sends a press release to each graduate's hometown newspaper announcing his or her accomplishment. Engagement opportunities related to post coursework including pre-registration, feedback from students, and program completion are included in Table 3.

TABLE 3: Post Coursework

| Engagement Opportunity | Strategies |
|-------------------------------|--|
| Pre-registration | <ol style="list-style-type: none">1. Provide students with information about course offerings for the next semester.2. Encourage students to pre-register for the next semester.3. Assist students with financial aid paperwork, if necessary. |
| Course Evaluation | <ol style="list-style-type: none">1. Provide students an opportunity to evaluate instructor.2. Provide students an opportunity to evaluate course.3. Conduct a program meeting at end of semester for all instructors.4. Review course evaluations and initiate improvements. |
| Student Feedback | <ol style="list-style-type: none">1. Give students a chance to reflect on their experiences.2. Provide a “safe environment” for students to give feedback. |
| Celebrate Success | <ol style="list-style-type: none">1. Congratulate students for completing the course.2. Congratulate graduates for completed the program.3. Encourage students to applaud the accomplishments of other students. |
| Graduation | <ol style="list-style-type: none">1. Present graduate with certificate suitable for framing.2. List graduates on the university website.3. Send press release to the graduate’s hometown newspaper. |

Alumni

Graduates of the HCMT certificate program are alumni of the university and as such have the opportunity to join the Alumni Association. Graduates are encouraged to participate in alumni activities, support and promote the HCMT certificate program, mentor students, and talk with potential students.

In addition to sending brochures to hospitals and nursing homes, letters and brochures are sent to graduates of the program asking them to share the information with people who they think may be interested in and would benefit from the program. Graduates are also good candidates to serve on an external advisory committee and to make recommendations on how to make changes to the

program. It is anticipated that by engaging our alumni, they will help to recruit additional students. “Word of mouth” is the best marketing tool at our disposal and it is free. Table 4 lists strategies that may be used to encourage alumni to promote the program.

TABLE 4: Alumni

| Engagement Opportunity | Strategies |
|-------------------------------|---|
| Alumni Association | <ol style="list-style-type: none"> 1. Provide graduates with information on Alumni Association. 2. Encourage graduates to participate in Alumni activities. |
| Mentoring | <ol style="list-style-type: none"> 1. Encourage graduates to support and mentor students. |
| Interviews | <ol style="list-style-type: none"> 1. Suggest students contact graduates from program for field activity assignments. |
| Promote Program | <ol style="list-style-type: none"> 1. Recommend that potential applicants talk with graduates. 2. Encourage graduates to provide scholarships for students. 3. Provide graduates with program material that can be used to recruit potential students. |
| Recommendations | <ol style="list-style-type: none"> 1. Have graduates assist students in designing schedule. 2. Encourage graduates to become external advisors for the program. 3. Allow graduates to assist with development of course content. |

Outcomes

The HCMT certificate program was initiated fall semester 2003 and graduated its first class in spring 2005. Between fall semester 2003 and fall semester 2008, 96 individual students have enrolled in at least one course from the HCMT certificate program. These students can be separated in three categories: (a) HCMT certificate program only, (b) RN-BSN completion program, and (c) undergraduate students taking courses as electives. The distribution of students by category is included in Table 5.

TABLE 5: Student Type

| Category | Number of Students |
|------------------------------|--------------------|
| HCMT certificate program | 29 |
| RN to BSN completion program | 24 |
| Undergraduate students | 43 |
| Total Enrolled | 96 |

While some students enroll in HCMT certificate courses with the intent of completing the four course certificate program, others enroll in one or two courses to meet specific personal or work-related needs. Twenty students earned HCMT certificates between May 2005 and December 2008 and three others are scheduled to complete the program in May 2009. Of the 20 who have completed the program, 17 were students enrolled specifically for the HCMT certificate program and three were RN-BSN students. Five of the students who have completed the program work at the health care organization that helped design the program.

Successful completion of courses is one of the variables tracked in the evaluation of the program. To track student activity, the attrition rate is determined by the percentage of students who drop or withdraw from a course after the official drop-add period ends. During the drop-add period, students are allowed to modify their schedules or drop courses and still obtain financial reimbursement for fees paid. The drop-add period ends on the fifth day of each semester. Since the HCMT certificate program was initiated, 11 students have dropped a course after the drop-add period, or an attrition rate of 12.5%.

Implications for Future Research

The HCMT certificate program provided a controlled environment for designing the Model for Engagement. The next step in the research process will be to test the Model either with students and graduates of the HCMT certificate program or with students enrolled in other online programs of study. Research studies may be designed to test the Model as a whole or strategies within the Model may be tested independently. As research is completed, the Model may be expanded or modified to include additional strategies for engaging students with the intent of reducing attrition rates.

Research studies should be conducted from the viewpoint of the instructors as well as the students since perceptions of one group may be very different from the other. Questions of particular importance to validate the Model include:

- What methods of engagement contribute to students' persistence in an online program from the point of view of graduates and instructors?
- Can the Model provide students a method to assess engagement strategies used in an online program before registering?

While the Model was developed specifically for online course delivery, it would be interesting to determine if the Model is unique to online learning environments. The purpose of such a study would be to determine if the strategies outlined in the Model would positively impact learning in the traditional classroom as well.

Conclusion

The Model for Engagement is designed to identify strategies that strengthen the connection between online students and their instructors, other students, the course material, and members of the community. The four primary strategies for engagement provide a foundation for the Model and direction for faculty, students, and alumni to improve online program delivery. It is anticipated that when the Model is fully implemented, students will be properly prepared to take

online classes, will participate more fully in courses, and will successfully complete courses in which they are enrolled. The need to decrease attrition rates by retaining students in individual courses and associated online academic programs is becoming more critical as the number and variety of online classes are steadily increasing.

References

- Allen, I. E., & Seaman, J. (2007). Online nation: Five years of growth in online learning. Needham, MA: Sloan-C. Retrieved November 19, 2007, from http://www.sloan-c.org/publications/survey/pdf/online_nation.pdf
- Allen, I. E., & Seaman, J. (2006). Making the Grade. Needham, MA: Sloan-C. Retrieved November 1, 2008, from http://www.sloan-c.org/publications/survey/pdf/making_the_grade.pdf
- Anderson, T. (2004). Toward a theory of online learning. In T. Anderson & F. Elloumi (Eds.), *Theory and Practice of Online Learning* (pp. 33-60). Canada: Athabasca University.
- Angelino, L. M. & Natvig, D. (2007). Engagement of the Online Learner. *Proceedings of the Consortium for Student Data Exchange (CSRDE) 3rd Annual Symposium on Student Retention, USA*.
- Angelino, L. M., Williams, F. K., & Natvig, D. (2007). Strategies to engage online students and reduce attrition rates. *The Journal of Educators Online*, 4(2). Retrieved July 2, 2007, from <http://www.thejeo.com/>
- Berge, Z. L., & Huang, Y. (2004). A model for sustainable student retention: A holistic perspective on the student dropout problem with special attention to e-learning. *DOESNEWS*, 13(5).
- Carnevale, D. (2000). 'Boot camp' helps new online students at Boise State U. *The Chronicle of Higher Education*, 46(24), p. A48.
- Carr, S. (2000). As distance education comes of age, the challenge is keeping the students. *The Chronicle of Higher Education*, 46(23), A39-A41.
- Diaz, D. P. & Bontenbal, K. F. (2001). Learner preferences: Developing a learner-centered environment in the online or mediated classroom. *Ed at a Distance*, 15(8). Retrieved April 11, 2006, from http://www.usdla.org/html/journal/AUG01_Issue/article03.html
- Dunagan, S. P. (2005). Performance and attrition rates of students in online versus face-to-face physical geology courses. *Proceeding of the Geological Society of America [Abstracts with Programs]*, Salt Lake City, 37(7), 408.
- Frankola, K. (2001). Why online learners drop out. *Workforce*, 80(10), 53-58.

- Lorenza, G., & Moore, J. (2002). *The Sloan Consortium Report to the Nation: Five pillars of quality online education*. Retrieved February 21, 2008, from <http://www.sloan-c.org/effective/pillarreport1.pdf>
- Lynch, M. (2001). Effective Student Preparation for Online Learning. *The Technology Source*. Retrieved February 21, 2008, from http://technologysource.org/article/effective_student_preparation_for_online_learning/
- Minich, E. (1996). *Using student feedback to improve distance education*. Florida Community College, Jacksonville. (ERIC No. ED 397893)
- Moody, J. (2004). Distance education: Why are the attrition rates so high? *The Quarterly Review of Distance Education*, 5(3), 205-210.
- Moore, J. C., Sener, J., & Fetzner (2006). Getting better: ALN and student success. *Journal of Asynchronous Learning Networks*, 10(3): July 2006. Retrieved October 31, 2007, from http://www.sloan-c.org/publications/jaln/v10n3/v10n3_6moore.asp
- Moore, M. G. (1989). Three types of interaction. *American Journal of Distance Education*, 3(2).
- Nash, R. (2005). Course completion rates among distance learners: Identifying possible methods to improve retention. *Online Journal of Distance Learning Administration*, 8(4).
- Palloff, R. M., & Pratt, K. (2001). *Lessons from the cyberspace classroom: The realities of online teaching*. San Francisco: Jossey-Bass.
- Roach, R. (2002). Staying connected. *Black Issues in Higher Education*, 19(18), 22-25.
- Rovai, A. (2002). Building sense of community at a distance. *International Review of Research in Open and Distance Learning*, 4(1), 1-9.
- Terry, N. (2001). Assessing enrollment and attrition rates for the online MBA. *T H E Journal*, 28(7), 64-68.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45(1), 89-125.
- Twigg, C. A. (2004). Using asynchronous learning in redesign: Reaching and retaining the at-risk student. *Journal of Asynchronous Learning Networks*, 8(1), 7-15.