

Reducing Online Course Dropout in Community College

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Introduction

Higher education institutions have responded to societal needs by offering distance education courses (Garman & Good, 2012). The majority of higher education students will be taking at least one online course, and academic leaders are very optimistic that online learning will continue to impact an increasing fraction of higher education students (Sлимп, 2014). Online enrollment, as a percentage of total degree-granting postsecondary enrollment, has increased from 9.6% in 2002 to 33.5% in 2012 (2014). The annual growth rate for online enrollment peaked at 36.5% in 2005 and was 6.1% in 2012; this amount is still five times higher than the overall annual growth rate in that latest year, for which data are available (2014). Community colleges in particular are increasing their enrollment faster than four-year universities and have had the highest growth rate in online learning enrollments in higher education (Ashby, Sadera, & McNary, 2011). Online community college courses continue a steady and robust increase in popularity; this growth coincides with an overall decline of enrollment in programs that cater to working adults (Lokken & Mullins, 2013).

Typical undergraduate college students that take online courses are older than traditional college students, have work and family responsibilities, and are often students who enroll part time after interruption of previous college studies (Garman & Good, 2012; Robb & Sutton, 2014). Community college students are similarly more likely to be employed full-time, have family responsibilities, and attend college part time (Wolff, Wood-Kustanowitz, & Ashkenazi, 2014). Community colleges provide online education opportunities for this population, making community college a setting where online courses are increasingly popular (Liu, Gomez, & Yen, 2009; Wolff, Wood-Kustanowitz, & Ashkenazi, 2014). Community college is an important and substantial component of higher education in general and online education in particular; thirty

one percent of 18-24 year old college students and more than half of online students in the United States attend community college (2014). As early adopters, as of 2008, 97% of community colleges offer online courses (Hachey, Wladis, & Conway, 2012)

Half of community colleges report they are able to meet the popular demand for online courses; at the same time the focus has shifted from simply offering online courses to offering quality courses that allow for student success and increased retention and completion rates (Lokken & Mullins, 2013). Increasing enrollments and student demand for online courses at community college are generally good problems to have (2013). However administrators also report that there is an urgent need to improve online course student retention and persistence rates and “help more students graduate to compete in the 21st century workplace” (2013, p. 27). Addressing student retention is a priority; fifty three percent of administrators say retention is lower for online than face-to-face classes and that “student retention and student success are becoming increasingly important” (2013, p.22). Moore and Fetzner (2009) argue that the whole point of online education is to increase access to education for learners who may not otherwise have that access and “retaining students is at least as important as recruiting them” (p. 10).

A student who drops out of an online course may face increased future frustrations due to lowered confidence in learning, reduced chances of registering for other online courses and if registered, lowered success in subsequent online courses (Hachey et al., 2012; Lee & Choi, 2011; Lee, Choi, & Kim, 2013). For institutions, a high dropout rate may suggest that their courses are not of high quality, and in the longer term there may be loss of profit (Lee & Choi, 2011). Clearly along with the rapid growth of distance education in community college has come the growing concern about the significantly higher dropout rates; this is an issue that has troubled instructors and administrators (Doherty, 2006; Lee, Choi, & Kim, 2013; Lokken & Mullins,

2013; Muse, 2003;). Those institutions that have more experience with online education consider retention to be a bigger and more urgent challenge, than institutions with less online education experience (Lokken & Mullins, 2013). Community colleges face challenges due to lack of understanding about online student dropout, and there is need to identify factors that may affect online course dropout so that dropout rate may be reduced (Hachey et al., 2012; Liu, Gomez, & Yen, 2009). Students dropping out of online courses, is a complex phenomenon; there are various possible reasons, and there is no single indicator that can effectively predict course drop out (Jones, 2013; Lee & Choi, 2011; Liu et al., 2007).

Research to understand the factors that influence community college online course dropout and how the dropout rate may be reduced is necessary. This research project addresses four different but inter-related areas: factors that affect online course dropout in community college and should therefore be considered when working to reduce dropout rate; how dropping out of an online course in the community college setting can be reduced; examination of efforts that are likely to meet the goal of reducing course dropout rates; and specific practices and interventions that have been proven to reduce course dropout rates in community college setting. This research project is organized into literature review and analysis sections, each addressing the following domains: student characteristics and environmental factors; early identification of at-risk students; student support services; online student orientation; targeted emails; and course, program, and faculty factors. The conclusion section summarizes findings and recommendations for reducing dropout rates in community college online courses and furnishes suggestions for future research.

Literature Review

Garman and Good (2012) performed research in a community college and learned that

dropout rate was significantly higher for online than for face-to-face sections of the same courses. They concluded that community college students may not be sufficiently prepared for online course work and therefore drop out of a course after failing to pass the first or second exam (2012). They recommended online orientation as a requirement for all students prior to enrollment to online courses, in order to introduce students to the format and help them understand the necessary self-direction and time management skills (2012).

Additional recommendations for addressing higher dropout rates for online courses in community college included (Garman & Good, 2012):

- Incorporate proficiency requirements to be met before first-time online students are cleared for registration
- Instructors provide intervention strategies quickly for students that do not pass the first exam, in effort to encourage those students
- Encourage students to understand their personal learning styles and equip those students with strategies to adapt their styles to the online format
- Faculty share successful intervention strategies for helping students succeed
- Form focus groups of former students in order to gather information that may help future students successfully complete online courses

Doherty (2006) expressed that community colleges have higher dropout rates for online courses and made recommendations for decreasing the dropout. Firstly, he recommended effective instructor communications that take assignment deadlines into account, to preempt procrastination by busy students who enroll in online courses (2006, p. 254). Deadlines should be monitored by the instructor and accompanied by feedback to students, in order to keep them informed about how they are progressing (2006, p. 254). Deadlines should also complement the

times instructors are likely to be online and available to answer questions, so that students can receive timely answers to their last minute questions (2006).

Doherty (2006) also suggested that the workload requirements of an online course be discussed with students in advance, so that interested students have a clear understanding of the commitment (p. 254). Along similar lines he suggested advisors should discourage over-committed students, who may not be ready for the work of online study at the time, from registering for an online course. He expressed that the flexibility of an online course should not be confused with workload, and that the former does not decrease the latter. Community college students in online courses should understand they are time-consuming (2006).

Park and Choi (2009) explained “external factors such as family issues, lack of organizational support, changing job, and workload are the main factors affecting the decision to drop out of online courses” (p. 215), and that family and peer support are necessary for success of online learners. They explained that “organizational support could be a crucial factor to influence learners’ dropout decision”; “learners who perceive that the course is relevant to their job or life are less likely to make a decision to drop out”; and summarized that “adult learners tend to prefer learning that has a practical purpose to learning for academic purposes only” (2009, p.216).

Moore, Bartkovich, Fetzner, and Ison (2002) explained that having a large full-time course load, busy lives outside of school, less maturity, lack of easy access to IT resources, and lack of experience in higher education in general and with online courses specifically all increase chances of community college students dropping out of an online course (p. 21). They suggested that students with previous higher education experience are better able to find the help they need when taking an online course and to handle the demands and differences of online learning

(2002). Students with less higher education or online course experience, and those who are younger in age or from a minority group, “should be targeted for advising and orientation to be sure they understand what will be required” (2002, p. 22).

Jones (2013) found that as a result of online mandatory orientation, students at a community college taking an online course for the first time were better prepared for their online courses. Jones (2013) advocated for fully online orientation, and explained that performing in-person orientation at school, using computers labs with an instructor in a lecture format has been ineffective. For example, after such at-school orientation was completed, and students were at home doing their coursework, those students realized their own computers sometimes did not have the sufficient software or were not configured correctly, which caused problems for them in their online class. Similarly, when those students had later entered the course environment they were confused by it and did not know how to work through their course content (2013). The community college therefor redesigned their orientation to make it fully online and mandatory. The redesigned orientation improved retention rate in online classes at the community college from 72% prior to the orientation to 80% after, and the rate stayed at 80-84% three years after the orientation was initiated (2013).

Jones (2013) explained that the online orientation had learning modules on computer requirements, successful practices for being an online student, important online student services, submission of assignments, and navigation of the learning environment. Ninety percent of students at the community college felt the orientation was helpful in preparing them to use the college’s learning management system, and that the orientation made them feel very confident that their computer was configured properly; ninety three percent of the students felt that the orientation made them feel very confident with their ability to effectively navigate the LMS for

their online course; and 87% felt very confident in understanding what it took to be successful in an online course (2013). The orientation has been provided within an hour of students registering for their first online course, and students can't begin their online course until successful completion of the orientation including interactive activities at the end of each learning module, and a cumulative final assessment (2013).

Robb and Sutton (2014) demonstrated that motivational emails sent by the instructor to online students at a community college increased course completion rates, and motivation. The researchers wished to address the problem of students dropping out before the class end date, a problem that has been more severe in online than traditional face-to-face college classes (Robb & Sutton, 2014; Wolff, Wood-Kustanowitz, & Ashkenazi, 2014). More specifically, lack of motivation is an important contributor to dropout when studying online (Robb & Sutton, 2014). Motivating elements that are found in face-to-face classes, including group pressure and familiar learning environment, may be absent in an online course, and therefore strategies should be purposefully integrated into online classes to increase motivation (Robb & Sutton, 2014).

Several motivational emails were sent to students throughout the semester; the emails used pleasing graphics and were otherwise inviting, and included encouragement and practical advice for students who may be struggling, as well as congratulatory messages for continuing in the course and encouraging students to work hard in finishing the class (Robb & Sutton, 2014). A comparison between the experimental group that received the motivational emails and the control group which did not, showed significant differences in motivation levels and course completion rates (2014). Increased motivation for students, a caring instructor, and willingness by the instructor to communicate were impactful themes that emerged from the practice of sending motivational emails to students (2014).

Smith, Lange, and Huston (2012), by way of using learning analytics in online community college courses, learned that “early log in activity was one of the strongest predictors of long-term student success” (p. 59). Based on this information, an automated welcome email system for online students was piloted which sent an email to students the day before course start and encouraged them to log into the course, contact their instructor, and begin course participation (2012, p. 60). Prospective research was performed by randomly putting students into experimental—those who received emails, and control groups—those who did not. A significant decrease (40%) in dropout rate was demonstrated in the intervention group, along with a significant increase in early log in rate (2012).

Liu, Gomez, & Yen (2009) make additional recommendations for decreasing dropout in online community college courses. They stressed the importance of social presence, which they defined as “the degree of one’s feeling, perception and reaction to another intellectual entity in the online environment,” and that “the greater the perception that social presence exists, the better the ability to substitute telecommunications media for face-to-face encounters and still achieve the desired collaborative outcome” (2009, p. 166). Social presence is a significant predictor of online course retention in community colleges (2009, p. 172). Specifically-designed questionnaires should be used for early identification of online students who may be at-risk for lowered social presence, so that intervention may be designed for them (2009).

Secondly, social and learning communities in online courses should be developed in an integrated manner, in order to increase student social integration and readiness and thusly decrease dropout. Specifically, inside and outside collaborations should be increased (Liu et al., 2009). Inside collaboration “provides a supportive environment for asking questions, clarifying directions, suggesting or contributing resources, and working on joint projects with class

members,” while outside collaboration “provides for the integration of external personnel and resources such as speakers, guest lecturers, and Web sites, in course activities” (2009, p. 173). Lastly, Liu et al. (2009) recommended building effective learning that is a mix of “traditional instructor-led learning, synchronous collaborative learning, asynchronous self-paced study, and practical learning from an experienced classmate,” which would “increase interaction, integration, and collaboration” (p.177) and therefore increase course retention.

Wolff et al. (2014) continued the social theme by explaining that feelings of isolation are common among online community college students, and that the sense of isolation may be exacerbated by employment to the extent that it may limit opportunities to interact with other class members engaged in online activities. Wolff et al. (2014) expressed that participation in online course discussions is a significant predictor of course completion. They also explained that students in community college should be required to address their academic weaknesses before taking online courses, especially because students with poor academic skills may face problems that are exacerbated by enrollment in online courses (2014). They felt greater investments in mandatory counseling and online orientation, to target students with poor academic skills in particular, will decrease dropout (2014).

Moore et al. (2002) expressed that community college students taking online courses often “did not know where to go for help” (p. 23). Moore et al. (2002) suggested that community college students taking online courses, particularly those with less higher education or online course experience and younger in age, should be better oriented and receive additional support before they register for or begin an online course. Specifically, Moore et al. (2002) recommended:

- Enhance awareness of the rigors and writing-intensive nature of online courses

- Provide pre-course student orientations facilitated by faculty, advisors, and technical staff
- Help students identify their level of readiness for the online environment, by using an assessment of readiness checklist and myths of online learning video
- Assign a technical tutor to students in selected courses for the first three weeks of the semester, to provide additional scaffolding to students and assist them with technical issues
- Develop, provide, and periodically revise a getting started in your online course orientation program
- Make students aware of support services that are available by enhancing integration of those services (online support team activities, office of registration, admissions, bookstore, financial aid, counseling, advising, etc.)
- Place increased emphasis on ways students can access a central technical help desk (phone and online) and implement an online student non-technical help desk to respond to student questions that are outside of the technical realm

Russo-Gleicher (n.d.) studied faculty that teach online courses at a community college and learned that even though faculty identified problematic online student behavior in online classes, only a few referred students to support services. Reasons for not doing so, reported from most common to least, included “lack of knowledge about the support services offered, a lack of thought about the need to make referrals, beliefs that college students should be responsible, beliefs against 'handholding' in college, lack of time to make referrals, and that making referrals is not part of the role of college professor” (n.d., p. 17). Lack of referral may play a role in dropping out of online classes, and there is “need to improve student support services with online students” (n.d., p. 22).

Russo-Gleicher (n.d.) makes the overall recommendation that faculty training should be

improved to move beyond online pedagogy and technology and include prevention of student dropout in online classes. Several specific recommendations for increasing student referral to support services by faculty were also provided (Russo-Gleicher, n.d.):

- Inform faculty about student support services that are available at the community college, with the option of delegating referral to a counselor if the faculty member is too busy
- Communicate to faculty the importance of timely referral when a student may first appear to be at risk of having trouble with the course
- Include student support service information in new faculty handbook along with expectation of referral to support services by faculty for students who may be at risk
- Communicate to faculty that referral of at risk students to support services is encouraged by the school and is seen to be part of a professor's role
- Encourage student advising to proactively contact faculty several times per semester to inquire whether any students require referral to support services due to being at risk

Bambara, Harbour, Davies, and Athey (2009) studied community college students enrolled in high risk online courses, which they defined as courses with dropout rate of 30% or higher. Several strategies for reducing dropout in high-risk courses were suggested by Bambara et al. (2009) including:

- Identify high risk online courses in community college and develop targeted retention programs for students enrolled in those courses
- Provide prospective students with orientation to clarify course expectations including time, effort, and focus requirements for completing the course
- Ensure student services and academic support programs are adequate for the range of students in high risk courses

- Mentor instructors of high risk courses and require their participation in professional development that promotes best practices in instructional design and delivery for online courses

Moore et al. (2002) recommended, “addressing academic issues related to the development and delivery of the course itself” (p. 23) to decrease online course drop out in community college. Training of online faculty for course development should address “integration of retention strategies in the course design and delivery process” (2002, p. 23). The specific strategies recommended by Moore et al. (2002) are:

- Encourage and enable faculty to include and provide several opportunities for early interaction with online students
- Faculty who teach difficult and high-risk courses that are associated with drop out should assess course structure and delivery to enhance student retention
- Use an icebreaker activity in the first course module and provide timely feedback to the activity as a means of engaging students early on
- Begin the course with self-assessment activities that are not graded
- Introduce the instructor and require students to introduce themselves, using the faculty introduction as a model and guide
- Emphasize the importance of interaction (threaded discussions, group projects, etc.) and make expectations for interaction clear

Moore and Fetzner (2009) have addressed another component for reducing online course drop out: faculty satisfaction. The goal for faculty satisfaction “is the sense that teaching online is personally and professionally beneficial, an enthusiasm that communicates itself to students” (p. 7). Institutional leadership should endorse “online faculty excellence, recognizing the benefits

and the demands of online teaching and providing ongoing professional development, support, and recognition” (p.7). Moore and Fetzner (2009) recommended several strategies for effective introduction of online teaching to faculty:

- Involve faculty in content development and curriculum design, internal and external quality reviews, and community building
- Provide boilerplates and effective practices for course design and delivery for new instructors, including use of institutional and/or external standards and rubrics.
- Introduce faculty to online teaching and ensure faculty have experience as online learners and sufficient knowledge before they begin teaching online
- Provide technology and instruction services online or at convenient places such as campus libraries
- Illustrate effective practices in online teaching for faculty by enabling them to view sample online courses that illustrate those practices
- Support faculty via helpdesks, instructional designers, and technology and academic resource centers
- Ensure faculty know additional professional development is available as needed
- Survey and interview faculty in order to understand and improve faculty satisfaction with online teaching

Moore and Fetzner (2009) recommended provision of ongoing professional support and development for increasing online faculty satisfaction. Moore and Fetzner (2009) recommended institutions support design and development of effective online courses by dedicating “support from instructional designers, disability services, advisors, librarians and other personnel including a team member assigned to make sure all course links are working, dates are set

correctly, and exams and quizzes are functioning,” encouraging “peer consulting and mentoring for additional support,” and enabling “faculty to share and advance effective practice and provide opportunities for cross-discipline discussions on online pedagogy and course design” (p.8).

Moore and Fetzner (2009) also recommended that institutions provide various ongoing professional development workshops for new and experienced faculty on topics like appreciation of differences between online and face-to-face teaching; reconceptualization of courses for online co-teaching and team teaching; workload management; use of Web 2.0 applications; design and management of effective course discussions; and creation and engagement of students in online learning community.

Lastly, Moore and Fetzner (2009) recommended institutions recognize excellence and signal commitment to online education by having “award and recognition programs for outstanding online teaching,” which promote “exemplars that communicate effective practice in-house and beyond the institution” (p.8). Moore and Fetzner (2009) recommended concrete leadership and management steps including endorsement of excellence by linking “online teaching and quality reviews to promotion and tenure or other benefits such as funding for conference attendance, research presentations, and mentoring activities”; creating “various royalty arrangements or release time for teaching or developing online courses”; and providing “additional compensation for research about online education and for developing courses and effective practices” (p. 8).

Twigg (2009) provided several concrete and specific recommendations for effective course design and retaining community college online students at risk of dropping out. She felt such actions are useful for “helping students feel that they are a part of a learning community,”

which is “critical to persistence, learning, and satisfaction” (2009, p. 149). She provided several recommendations for course design and learning and teaching practices (2009) including:

- Promote active learning by making teaching and learning learner-centered. Incorporate a variety of learning resources that move students from passive to active learning orientation so that students learn by doing
- Utilize learning resources that promote student engagement with course content; use tutorials, exercises, and low-stakes quizzes to provide frequent practice, feedback, and reinforcement of concepts
- Encourage mastery learning by basing student pacing and progress on the need to master specific learning objectives, frequently in modular format, according to scheduled milestones for completion
- Incorporate individual and small group activities into course design
- Provide on-demand help by making available an expanded support system that enables students to receive assistance from a variety of different people
- Make available faculty, graduate teaching assistants, or peer tutors so that students may have more one-on-one assistance
- Utilize alternative staffing for learners that consists of various kinds of instructional personnel who apply the right type and level of human intervention to different student problems. Doing so increases hands on assistance devoted to a course by providing a tiered personnel approach.
- Design or redesign a whole course, instead of a single class or section, in order to reveal duplication of effort among faculty and share the responsibility for both course development

and course delivery. This systematic approach and process saves time and achieves greater course consistency for learners

Lastly, Park and Choi (2009) explained that, “by providing opportunities to apply newly acquired knowledge into real situations, learners can feel that the skills and knowledge obtained from the course are useful and satisfactory and thus they can be motivated to persist in the course” (p. 215). This is another overall aspect of course design that decreases course drop out.

Analysis

Because online student drop out is a complex phenomenon (Jones, 2013; Lee & Choi, 2011; Liu et al., 2007), a multi-faceted and coordinated approach to reduce online course drop out at a community college is needed. Several strategies and actions for reducing the drop out rate must be implemented which take into account and address student characteristics and environmental factors, early identification at-risk students early, student support services, online student orientation, targeted emails, and course, program, and faculty factors.

The relevant characteristics of online community college students and the factors that influence their environment play a role in course drop out and need to be considered and to the extent possible neutralized in order to reduce online course drop out. Eighty percent of community college students work part-time and fifty percent work full-time, and they may see online courses as a convenient means for obtaining their college education (Liu, Gomez, Khan, & Yen, 2007). However, the community college population taking online courses is particularly at risk of drop out due to employment and family obligations (Wolff, Wood-Kustanowitz, & Ashkenazi, 2014). The most common reason students have cited for dropping out of an online course is their underestimation of the actual time available for studying versus their other obligations (Park & Choi, 2009). At the same time students think online courses are less difficult,

and have cited that as the reason they take an online course (Brown, 2012). Community college students who are interested in taking online courses should have a realistic understanding of the requirements for online study. Other studies indicate that family support, support from the student's employer, and relevance of the course to student's work and life influence dropout rates (Park & Choi, 2009; Varner, 2013).

Community college students that are interested in online courses need to be aware of certain things. They need to appreciate that online courses are challenging and are not easier than face-to-face courses. They need to know that they will have sufficient time available to devote to their course and studying. Preferably they should have the support of their family and their employer before registering for online courses. There should be consideration in choosing courses that are relevant to their work or the career they are likely to pursue. In addition to support from family and work, self-efficacy, motivation, and management skills significantly impact course dropout rates (Lee & Choi, 2011; Lee, Choi, & Kim, 2013). Other factors like study environment and time management may indirectly influence drop out decisions, due to their impact on availability of studying hours (2013).

Individual student characteristics including age, gender and education level have little influence on dropout rate (Park & Choi, 2009; Varner, 2013) although parental education level is positively associated with reduced course drop out. Possibly, this is because parents who have college experience may be able to better counsel their children about college success (Fike & Fike, 2008). This indicates that online community college students who are the first in their family to attend college may require more advising and support as a means of preventing course drop out. Level of student skills, including learning and communication skills are also relevant to dropout rates, because those skills influence amount of effort and persistence student put forth

when faced with obstacles (Hachey, Wladis, & Conway, 2012). Therefore, students with lower levels of such skills should be identified and proactively targeted with support. Community college learners that are new to online courses should receive advising and counseling that address reading and writing techniques, self-motivation, time and stress management, and other relevant factors (Liu, Gomez, Khan, & Yen, 2007; Milligan & Buckenmeyer, 2008).

Students should not register for online courses in community college without pre-assessment of their chances for success in that learning environment and responsible action from the school to remedy shortcomings, in order to reduce course drop out (Milligan & Buckenmeyer, 2008; Muse, 2003). Early identification of online community college students that may be at risk of dropping out can be accomplished by assessing and analyzing learners (Liu, Gomez, Khan, & Yen, 2007; Varner, 2013) and the relevant student characteristics, student environment, and student skills should be included in the analyses. Advisors should pre-identify students who may potentially need individual assistance, and proactively reach out to them to provide one-on-one advising (Hachey, Wladis, & Conway, 2012). Diagnostic methods including interviews and self-assessment tools may assist students in assessing their readiness to enroll in online classes; and more importantly, to identify areas where student support should be offered (2012).

Community college students that are interested in registering for online courses should receive adequate advising and counseling before being cleared to take this type of course. This may be an important component in reducing course dropout (Wolff, Wood-Kustanowitz, & Ashkenazi, 2014). Online students are interested in seeing the syllabus for a course and should be allowed early access to class materials to alleviate anxiety (Marshall, Greenberg, & Machun, 2012; Varner, 2013). Students have expressed wanting to know and should be able to know the

amount of time that prior students in a course have spent studying, as well as the difficulty level of a course, before registering (2012). Pre-assessment and course information helps students make more informed choices when registering and to tailor their course selection based on current amounts of work and life responsibilities (2012).

Novice online college students are significantly less confident than those with more experience with online courses that they can complete the online course and get a good grade (Hachey, Wladis, & Conway, 2012). Novice online community college students are also less satisfied with their skills and are more likely to become stressed when encountering problems. Successful navigation of the online course environment requires a new skill set that may be daunting to the novice learner (2012). Orientation is a practical intervention to prepare students for online coursework and prevent drop out (Lee & Choi, 2011; Wolff, Wood-Kustanowitz, & Ashkenazi, 2014). Ellis-O'Quinn (2012) expresses that orientation programs, usually designed to provide students with tools needed for social and academic integration, are often employed by community colleges as a strategy to increase retention and decrease dropout rates. She goes on to explain that results from several studies, including the Community College Survey of Student Engagement, indicate students enrolled in an orientation course were retained at a much higher rate than those not enrolled (2012).

Mandatory online orientation prior to course registration allows students to gain an appreciation for the online environment for learning, understand whether the computer they plan to use for their online course is sufficiently configured, and gain hands-on practice with the technology they will be using in their online course (Jones, 2013). Technological factors strongly influence course drop out in community college online classes, and learners need to spend time learning the technological environment before being able to participate in class (Liu, Gomez,

Khan, & Yen, 2007). Online orientation is a dropout prevention strategy that ensures students have a realistic appreciation of course requirements. It reduces unexpected problems encountered during an online course and hence decreases wasted time when it is most needed, increases comfort with an online course, and raises proficiency in time management and other prerequisite skills (2013).

Assistance in understanding the layout of community college online courses as well as course and assignment expectations may preempt issues with the learning environment. Doing so may help reduce student frustrations that may otherwise occur at the expense of concentrating on coursework and therefore positively mitigate and reduce drop out (Hachey, Wladis, & Conway, 2012; Jones, 2013). Online orientation may “increase student involvement and academic and social integration by addressing student needs, easing transition into the new environment, establishing community, creating relations with faculty, staff, and peers, and enhancing retention, graduation, and student success” (Tighe, 2006, p. 5). Community college online orientation should be periodically evaluated to see if it continues to meet student needs and whether students are satisfied, particularly as the student population is diverse (2006). Tighe (2006) stresses that “without considering societal, student, and institutional characteristics, orientation can become a potpourri of isolated and futile activities” (p. 7). Surveys, interviews, focus groups, and informal feedback should be used to assess online orientation for continued effectiveness (2006).

Ongoing systematic support is a necessary component for preventing online course drop out (Lee & Choi, 2011). Good student support is a factor in students deciding to persist and not drop out of an online college course; more personal support before a student develops overwhelming challenges in a course would improve a student’s school situation and prevent the decision to drop out of an online course (Varner, 2013). Varner specifies that after “support

services consisting of a readiness survey, orientation, and regular academic support messages and personal contact were implemented retention of first year students more than doubled, increasing from 24% to 57%” and that “successful completers were surveyed and those who considered withdrawing stated student support as the reason for persistence” (2013, p. 19).

Student support services should be proactively targeted to community college students that are especially at risk for dropping out of an online course (Hachey, Wladis, & Conway, 2012). This group includes students that are new to online courses (2012); students that have dropped out of at least one previous online course, even if they have also had successful experiences in some online courses (2012); and students who are enrolled in high-risk online courses, which are known as having even higher dropout rates than typical online courses (Bambara, Harbour, Davies, & Athey, 2009). Diagnostic procedures should be used to identify specific areas of support for the populations at risk of drop out, and advising and support should then be provided to address deficiencies (2012). Institutions should centralize student support for online learners by working with various student support offices to offer an integrated and comprehensive support system (Milligan & Buckenmeyer, 2008).

Dietz-Uhler, Fisher, and Han (2007) recommend that technical, academic, and other student support services that are offered be clearly described and information be provided to students at the start of each course on how they may obtain such services. Other researchers indicate that effective online course technical support for community college students is necessary so that problems can be quickly resolved and the student does not have to wait very long or stop their studies and to prevent being frustrated and falling behind schedule (Liu, Gomez, Khan, & Yen, 2007). Varner (2013) recommends providing comprehensive support services, actively seeking out students to ensure they are using available support services, and

centralizing support functions for continuity. It is not enough simply to inform students once at the start of a course about support services; professors should be proactive about engaging with students and referring to support services as needed (Countryman & Zinck, 2013; Russo-Gleicher, n.d).

Instructors should be aware of student support services that are available, know that timely referral is a component of their job, and appreciate that they are encouraged to refer students that may benefit from student support services (Russo-Gleicher, n.d.). Teachers have a unique perspective into the progress of students for they are able to see when a student is not participating in class or turning in assignments on time which is predictive of course dropout (Muse, 2003), or is having unsatisfactory grades on assignments and otherwise not progressing and is therefore at risk for dropping out of a course. The student's advisor and other relevant administrative personnel at the community college should play the crucial roles of taking input from a teacher, and working with the at-risk student to arrange for adequate support services (n.d.). One-on-one interviewing with an at-risk student who has been referred by a professor allows for tailored referral for the needed student support service and should be utilized. Students at risk of drop out may, depending on their needs, be provided student support for study skills or other academic assistance, computer technical assistance, or mental health and disability services (n.d.).

Referral by a teacher for support services also demonstrates another variable of an effective strategy that has been demonstrated to reduce dropout rates. Caring community college online course instructors who are willing to communicate with students are effective in reducing course drop out (Robb & Sutton, 2014). These factors should also be demonstrated by way of periodic emails that are sent to students in order to provide overall advice and encouragement,

give useful information for upcoming assignments, and congratulate students for progressing through the course (2014). Such emails increase student motivation as well, another mechanism by which they reduce course drop out (2014). Motivating learners is a significant factor for retaining students in online courses (Lee & Choi, 2011; Liu, Gomez, Khan, & Yen, 2007). Learner's motivation should be prioritized at the course development stage, and motivational strategies should be used throughout the course (Lee & Choi, 2011; Park & Choi, 2009).

Automated emails that encourage students to log into the course are useful for reducing course drop out (Smith, Lange, & Huston, 2012), however they might not demonstrate a caring teacher who is willing to communicate and therefore should not be the only method of email communication for reducing course drop out. Non-traditional students who take online courses at community colleges have doubts in their ability to succeed and expect outreach or intervention in order to become involved in their studies (Robb & Sutton, 2014; Wolff, Wood-Kustanowitz, & Ashkenazi, 2014). They may be less likely to drop out when their course experiences and efforts are validated by instructors who take an active interest, provide encouragement, and affirm the students' academic capabilities (Robb & Sutton, 2014). Motivational and personalized emails may also serve to increase social presence in an online course, which leads to better learning outcomes and reduced course dropout rates (Liu, Gomez, Khan, & Yen, 2007), as well as decrease transactional distance and increase learning by allowing students to feel less separation and increased communication and sense of being in touch with their instructor (Steinman, 2007).

Engaging the online student is essential to reducing online course dropout rates (Varner, 2013). Feeling cared for and respected by professors leads to trust and engagement with the teacher by students (Countryman & Zinck, 2013). Lastly, students find it easy to fall behind in an online course, and some students have difficulty keeping up with long-term assignments and

remembering to sign into the course page on a regular basis, and need reminders (Brown, 2012). Motivational and personalized emails that are strategically prepared to include information on upcoming assignments (Robb & Sutton, 2014), in conjunction with automated emails, serve multiple factors purposes that reduce course drop out in community college online courses. Such emails should be encouraged and expertly planned and implemented by instructors and their assistants for all online community college courses.

Teachers should engage online community college students and work to make them feel cared for and respected, leading to further trust and engagement, which is essential to reducing course dropout rates (Countryman & Zinck, 2013; Varner, 2013). Teachers should increase social presence and affective expression, including teacher immediacy, to increase course retention (Boston et al., 2010). Teachers may reduce dropout rates by building a sense of community and team-work within online courses, which increase interactions between teachers and students (DiRamio & Wolverson, 2006; Lee & Choi, 2011). Teachers should employ ice-breaker activities, interactive activities, group assignments, and testimonials from past successful students; incorporate real-world applications into curriculum; invite guest speakers and teachers; promote reflective writing and self-evaluation; provide timely and appropriate feedback; and enable students to help each other to increase the sense of community and comfort all of which decrease course dropout rates (Dietz-Uhler, Fisher, and Han, 2008; DiRamio & Wolverson, 2006; Lee & Choi, 2011; Moody, 2004; Moore, 2014; Wilmer, 2009).

Teachers should provide opportunities to apply newly acquired knowledge from the course to real life situations (Park & Choi, 2009). Doing so increases learners' motivation to persist in the course, as relevance of the course to students' work has significant influence on decision to drop out of a course and learners are less likely to drop out when a course is relevant

to their life (Lee & Choi, 2011; Park & Choi, 2009; Varner, 2013). Community college faculty members and institutions should design courses that are well-structured and that enable practical, and not only academic, skills to be learned that may be applied to real-world situations (DiRamio & Wolverton, 2006; Lee & Choi, 2011; Varner, 2013).

Instructors and institutions should use alternative staffing to provide additional support for learners and to free faculty from routine tasks and allow them to focus on betterment of courses or programs and provide time for professional development (Moore & Fetzner, 2009). Faculty should utilize a teaching assistant, closer in age to students and with peer relation and other pre-requisite skills, as a means to decrease online course drop out (Fricker, 2013). On-demand tutoring should also be available for students, because individual tutoring encourages students to get help as needed rather than giving up (2009). In addition, institutions also “should regularly solicit and use student input, conduct online student satisfaction surveys and use results for continuous improvement, and ask students to identify obstacles so the institution can eliminate them” (2009, p. 10).

Faculty should receive professional development to ensure they have the skills to adequately teach in the online environment; initial and ongoing faculty training is an essential component of effective online education (Lee & Choi, 2011). Faculty and staff should be properly trained as a means to “improve distance education course quality, provide consistency across courses which will make them easier for students to understand and navigate, help recruit other online faculty members, enhance communication with and among students, and ultimately improve student retention and success” (Lokken & Mullins, 2013, p. 26). Faculty and staff should participate in regional and national professional organizations to benchmark, share

research and effective practices and other resources for improving quality of online education, and increasing course retention rates (Moore & Fetzner, 2009).

Training for faculty and supporting staff should also increase their understanding of online students and the particular nature and challenges that they face (Lee & Choi, 2011). Certification programs and evaluation rubrics should be implemented for online course faculty (Milligan & Buckenmeyer, 2008). Community colleges must ensure that online instructors receive sufficient training including a requirement to complete two courses in online instruction before certification to teach online, one on course design and instructional technologies and one on online pedagogy. Community colleges may need to hire a director of online faculty development to ensure faculty receives ongoing training, to develop training courses, and oversee certification and incentive programs (Jaggars, Edgecombe, & Stacey, 2013).

Several strategies have been shown to be useful for reducing online course drop out in community college setting. However, ongoing research is necessary to continue to validate these strategies and fine tune the strategies at each community college (Moore & Fetzner, 2009). Ashby, Sadera, and McNary (2011) indicate that “academic and other contextual factors affecting retention and attrition in distance education courses needs to be addressed in future research efforts, especially considering the growth of online courses in community colleges” (p. 138). The cost-benefit of retention activities should be determined, and dropout reduction strategies should be researched in an ongoing manner to examine and prove the mechanisms of their efficacy (Lee & Choi, 2011; Varner, 2013). Because community college faculty is not required to conduct research, there is less literature that focuses on community colleges, including reduction of dropout rates in online courses (Ellis-O’Quinn, 2012). Community college

faculty, staff, and practitioners should pursue research to validate their practices, even if they are not required to do so (2012).

Conclusion

Distance education and online courses are increasingly utilized means by which to obtain a quality education. Online learning has flourished in circumstances when traditional face-to-face education has not been practical or possible. Community colleges have been pioneers of online learning and are expected to continue showing high growth. Large portions of community college students work part-time or full-time, making online learning popular with that population. These students depend on online courses to complete their quality education and enhance their lives.

Retention of community college students in online courses is a significant problem that must be addressed for distance education to continue to flourish. This problem does not have any one specific cause or solution; at a community college the way to reduce students dropping out of online courses is to implement a multi-pronged strategy. The recommended strategies fall into two broad categories: early identification of students who may be at risk for dropping out, and interventions to reduce dropout rates. Although identification of students most at risk of dropping out is essential, interventions may be suitable for all due to the open door policy of community colleges.

Students must be informed early, before they register for online courses, that the courses are challenging and are in fact not easier than face-to-face classes. The students should have the support of their families and jobs, and take courses that are relevant to their jobs or the career they wish to pursue, so that their studies have practical meaning for their lives. Students that are interested in online courses, especially those who have not had the means to obtain an

appreciation of the realities of higher education in general and of online learning in particular should have advising and support to obtain the skills they need to be successful. Pre-assessments should be utilized to understand the readiness level of each student and address the skills that are needed to be successful online.

Mandatory and effective online orientation should be implemented at a community college for all students who may register for online courses in order for those students to gain an appreciation for the online learning environment and its demands. Support services should be available for online learners, and their teachers should readily refer students who may need support in order to complete their course, gain additional skills and confidence, and move forward. Teachers of online courses at a community college should also reduce course dropout rates by implementing a series of well-designed informative and motivational emails that are sent to students throughout the semester, in order to help students stay on track and increase their motivation to continue with their studies in the course. Such engagement, including referral for student support and motivational emails, will also show online community college students that their teachers care about their education and success, which is another strategy for reducing drop out.

Teachers at a community college should implement a series of pedagogical practices that have been proven to decrease online course dropout. These practices include increasing social presence, engaging students and making them feel cared for, providing timely feedback, keeping students on track, building a sense of community and comfort, increasing interaction, promoting reflection, using guest speakers and teachers, and providing opportunities to apply newly acquired knowledge from the course to real life situations. The institutions and instructors should utilize alternative staffing to provide additional support to students on an as-needed basis, and to

free faculty time to pursue course and program betterment activities and professional development.

Faculty and staff training and professional development should be provided before they begin teaching online and should continue by multiple means including participation in professional organizations and sharing best practices. A community college should implement certification programs to indicate teachers have received adequate training before they begin teaching online courses and have an appropriate understanding of the nature of online classes and the challenges online students face. At a community college another action for reducing students dropping out is to implement a formal online faculty and staff training and professional development program, including hiring a director of online faculty and staff development to direct and manage it.

Research into reduction of online course dropout rates at community college should be emphasized and ongoing at a community college, particularly since such research has not been a hallmark of community colleges and their faculty. Ongoing research is necessary to confirm the practices that have been recommended from the literature, to fine-tune the practices in a particular community college, and to learn about other strategies and actions that may be implemented to reduce dropout rates. A spirit and practice of ongoing research on reducing online students dropping out may be rewarding for community college faculty and staff, and increases the value that a community college places on reducing online course dropout rates and retaining students.

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