Final Report of the 2011 - 2012
Distance Education
Faculty Inquiry Team

April 2012
Participants

Project Facilitator - Catherine Bacus
Project Editor - Jonathan Ausubel
Project Graphic Design - Denise Johnson

Effective Online Teaching Practices Research Workgroup
Leader - Angela Bartlett
Members - Kathy Brindell, Tim Greene, Ken Koenigshofer, Susan Myers, Bonnie Spears & Jacque Wall

Instructor Support Workgroup
Leader - Terri Helfand
Members - Jo Alvarez & Julie LaMay

Student Support/Success Workgroup
Leader - Denise Johnson
Members - Jonathan Ausubel & Debbie Soll
During Fall 2011, the Faculty Inquiry Team for Distance Education was charged with researching, discussing, and compiling recommendations about the following concerns in Distance Education at Chaffey College:

- Effective online teaching practices;

- Methods of improving student support in distance education;

- Methods of improving faculty support in distance education;

- Methods for improving student success and completion rates in distance education courses.

The Inquiry Team was also charged with compiling a report of these findings by the end of the Spring 2012 semester.

The following report completes that charge.
Table of Contents

I. Effective teaching practices
   A. Accessibility .............. 1
   B. Social Presence ............ 2
   C. Feedback .................. 4
   D. Course Design .............. 5
   E. Discipline-Specific Variables in Distance Education ............ 6
   F. Recommendations ........... 8

II. Instructor Support
   A. Providing Instructors with Best Practices for teaching Distance Education Courses ............ 10
   B. Assisting and Supporting Use of the Learning Management System ........... 11
   C. Providing Information to Instructors ............ 13
   D. Promoting Discussion among Instructors ............ 13
   E. Conclusion ................ 14
   F. Recommendations ........... 14

III. Promoting Student Success and Retention
   A. Overview .............. 15
   B. Student readiness for Distance Education ............ 15
   C. Institutional and course structure that promote retention and success
      1. Orientation methods for students registering for distance education offerings ............ 16
      2. Standardized course entry survey ............ 17
      3. Human presence design ............ 17
   D. Expansion of professional development resources for Distance Education instructors ............ 18
   E. Availability of online student learning support services ............ 19
   F. Conclusion and Recommendations ............ 19

IV. Appendices
   Appendix A ............ 21
   Appendix B ............ 24

V. Overall Conclusions ............ 26

VI. References ............ 30
I. Effective Teaching Practices

A. Accessibility

A review of the literature concerning the effects of instructor accessibility in online teaching environments provides findings that are consistent with examinations of face-to-face classes. The degree of access a student perceives to have with an instructor coincides with student success in that course. Thus, students who feel that they have very little contact with, or that it is difficult to contact, an instructor tends to be less successful in Distance Education courses. A 2005 study conducted by Summers, Waigandt, & Whittaker reasoned that this makes sense since personal contact in a fully online class is usually not available, especially not when taught by adjuncts who do not have on-campus office hours, and "Lack of personal contact contributes to the students feeling the instructor is unapproachable" in both online and face-to-face teaching environments. Some of this same research also examines face-to-face class sizes and how that affects students’ sense of an instructor’s connectedness to the course and students. Moreover, research has shown that this same transactional distance as a negative characteristic has also been proven to be a factor in campus lecture courses of 200 or more students (Steinman, p. 47). The topic of how instructor-learner interaction affects student outcomes is hardly unique to the distance education field. However, the literature is clear that because of the nature of INET courses which involve varying degrees of computer mediated (CM) interaction, the need to understand and mitigate the impact of large "transactional distance" (Steinman, 2007, p. 46) is perhaps more critical than in the traditional face-to-face (FTF) setting. What is additionally clear from the various studies reviewed is that there is a positive correlation between student satisfaction and instructor accessibility, which can be defined as immediacy of student-instructor feedback, monitoring of online progress, and student-to-student and student-to-instructor synchronous and asynchronous interaction.

Additionally, a 2005 study by Concannon, Flynn and Campbell noted that undergraduate accounting students were motivated by an instructors’ expressed enthusiasm for online learning. This study found that "students wanted to have a clear sense of instructor support and preferred to ask difficult or critical questions via email. Studies such as these suggest that online learners desire an instructor who addresses them as individuals and offers supportive communications" (Dennen, p. 68). This re-
search also included survey responses which, quickly summarized, supported the general ideas stated here. Students rated *Provide extensive feedback* 96.9 % on a scale of importance to their performance. Along with pedagogical questions such things as *Check email to assess learner needs* was rated as 96.9 % along with *Respond to student inquiries* 90.6 %.

B. Social Presence

An online instructor's social presence can have a significant impact on a student success. Vanessa Dennen, A. Aubteen Darabi and Linda J. Smith of Florida State University. Their findings suggest that social presence can help "online instructors to overcome potential problems of learner attrition, failure, or dissatisfaction" (Dennen, p. 66). This study concludes that the instructor's *social presence* in a CM course is obviously more difficult to establish due to familiar elements in interpersonal communication that are lacking, such as tone of voice, gesture, etc. The authors also conclude that "...distance learners may be prone to feeling isolated from, or out of touch with, their instructors when they do not see them regularly" (Dennen, p. 67).

This study reports that this notion of *social presence* operates differently in CM instruction. Russo and Campbell (2004) found that instructor responsiveness (answering emails and providing feedback) and message tone or style affected student perceptions of presence. Additionally, students in their study liked seeing a photo and hearing the instructor's voice, feeling it gave them a greater connection to the instructor's real world presence. Gahungu, Dereshiwsky, and Moan (2006) found that personal email correspondence, frequently initiated by students, accounts for a good deal of instructor-learner interaction. Thus, perceptions of instructor presence are based on learners' psychological reactions to an online instructor's actions in both public (whole class) and private correspondence. Further, presence is not only confined to the amount of instructor-learner interaction, but also to the content of those interactions (Dennen, p. 68).

One remedy suggested in this study, "To reduce student-instructor transactional distance and create an environment more closely approximating the face-to-face model, online classes should offer a specific time when students can meet with the instructor in the lab or classroom instead of just online
(Schmidt, 2002). If students cannot meet on campus, teachers can meet with the students during "interactive office hours." The interactive office is equipped with a video camera and a microphone so that the student can both hear and see the instructor. Obviously, technology such as Skype could be utilized. Students could log in, discuss areas of concern, and ask questions" (Steinman, p. 47). This study emphasizes the fact substantiated in research that students are more satisfied in online courses when the sense of distance is removed and they can identify their instructor as a social presence. Steinman goes on to encourage online educators to be trained in 'nonhierarchical' relationships to mitigate the effects of transactional distance (Steinman, p. 48). The authors advise, "Teachers can take a leading role and continually seek out ways that prove effective to decrease transactional distance and learn new methods. It is up to the teacher to ensure an interactive learning environment by using approaches that engage students in the learning process" (Steinman, p. 51).

There are many approaches instructors can implement to increase perceived accessibility. For example, they can employ verbal and nonverbal behaviors to signal immediacy and to reduce physical and psychological distance with their students (Christophel & Gorham, 1995; Schutt, p. 136). Verbal behaviors include the use of personal examples, asking questions or encouraging students to talk, using humor, addressing students by name and being addressed by first name by the students, using inclusive language (referring to class as "our" class or what "we" are doing), providing feedback, and praising students' work (Gorham, 1988). While some of this research historically was based on face-to-face class settings, clearly there are techniques described here that can be easily adapted to the CM online setting. Along these lines, although such traditional, nonverbal immediacy behaviors such as using gestures, moving around the classroom, demonstrating a relaxed body position and smiling at the class, not reading notes, and looking at the class while talking (Andersen, 1979; Richmond Gorham & McCroskey 1987; Schutt, p 136-137). Studies are based on face-to-face classrooms as well; the adaptation of techniques such as these could be efficaciously integrated using video as part of online classes.
C. Feedback

Feedback is also essential to student success in any course, not just in distance education. According to an extensive empirical study of distance education and feedback by Espasa and Meneses (2011), "students that had received feedback after assignments achieved better academic results...[and] the percentage of fails...was significantly higher...among those who had not received feedback." A significant relationship, then, exists between feedback received after assignments and student results. However, as mentioned above, distance education may present additional barriers to feedback when compared to traditional classes, including fewer points of access, fewer casual meetings with students for clarification, and potentially more complicated content delivery methods. Both students and instructors can feel isolated and unclear about their roles in distance education; there are also "psychological and communication gaps that must be overcome by appropriate teaching procedures" (Moore, 1991; Dennen, p. 67). According to Fahme (2011), "to create effective and qualified distance education all barriers must be realized and eliminated" (p. 13). The question, then, is how to overcome these barriers. There are several possible solutions.

While distance education may present barriers to providing feedback, there may also be underutilized opportunities unique to distance education courses such as interactive technologies. According to Barragan (2011), "text-based content delivery and interaction dominated most of the courses observed" despite the fact that interactive technologies are highly rated by both instructors and students. Additionally, the quantity of instructor feedback is important, but not nearly as important as the quality of this feedback. As is the case in traditional classes, "feedback was considered unhelpful when vague, untimely, or when not enough information was provided to make it useful" (Rowe and Wood, 2007).

Discussion boards (forums) also need specific attention. Some recommendations include the following:

Ask questions to guide student comments and the direction of the discussion. Open-ended questions are particularly useful in discussion boards, and should be used in lieu of closed-ended questions whenever possible. Play "devil’s advocate" by asking probing questions, using contradictions and counterexamples, and challenging students to
apply their learning to novel situations, practical scenarios, and prior learning. Weave student comments into your postings as a means of summarizing and subtly assessing. Quoting student comments goes a long way towards providing confidence and satisfaction in your students, and spurs more frequent posting. (Improving Use of Discussion Boards, 2010)

Chaffey has several resources to help instructors learn to most effectively facilitate feedback. The Learning to Learn approach, the subject of the summer 2011 Summer Institute, provides a framework for providing students with feedback as well as teaching them how to reflect upon and analyze the feedback they receive. For additional feedback, writing students also have access to Smarthinking tutoring; the on-campus and online success centers are also available for all students. Peer feedback is also important, but requires an intelligent infrastructure created by the DE instructor. According to a study by Baran and Correia, "peer-facilitation strategies can help generate innovative ideas, motivate students to participate actively in the discussions, and provide an atmosphere for involvement and commitment" (2009).

Offering regular, constructive, effectively delivered feedback and ensuring students reflect upon and incorporate this feedback is critical in all courses, but especially in distance education. To ensure student success and retention, instructors need to consider the ways in which they respond to all assignments, from forums to essay assignments as well as the tools they use to deliver this feedback.

D. Course Design

In addition to feedback, based on between-class empirical evidence, researchers have made broad recommendations that student-student and student-instructor interaction be incorporated in online class design (Jiang & Ting, 1999; Lapointe & Gunawardena, 2004; Ouzts, 2006; Swan, 2002; Drouin, p. 269). A frequently cited study that was based on the surveys of 1,406 students across a university system "...found a significant positive correlation between students’ perceived interaction with instructors and fellow students and their satisfaction within their online class" (Drouin, p. 269). To emphasize the importance of interpersonal communication between the student and instructor in the CM online class experience, another finding with regard to student criticism of their online classes was focused
specifically at instructors. "... students cited 'no feedback on assignments' and 'disengaged, unavailable' instructors" (Drouin, p. 270). The study concluded with some final observations and suggestions:

The results of this study suggest that instructors may be able to foster interactive relationships with their students, with students perceiving a high degree of instructor availability, with only a minimal amount of reciprocal interaction. In this case, the instructor-to-student interaction entailed video lectures, occasional whole-class announcements, and prompt reply to individual student e-mails (typically within 24 hours). Only one of these instructor-student interaction methods was reciprocal and required prompt individual attention: e-mails. (Drouin, p. 281).

Skilled distance education instructors who are animated, fluent, composed, and warm seem likely to convey immediacy despite the geographical distance separating them from their students (Guerrero & Miller, 1998). Instructors should demonstrate enthusiasm for the course, concern for students' achievement, and recognition of students as real people (Schutt, p. 146). Due to the transactional distance inherent in online instruction, the importance of utilizing pedagogical strategies to enforce student interaction with the instructor and student-to-student collaboration is critical for success. Instructors can model a personal presence in INET classes by using effective communication techniques which foster a sense of inclusiveness for students that can contribute to student success.

E. Discipline-Specific Variables in Distance Education

Discipline-specific variables and best practices for effective online teaching are concerns too large and significant for such a relatively brief period of research by a single individual or even a small group of individuals. We have a large number of areas with classes offered in hybrid or online formats plus others like Math that would like to offer online sections. Even considering a broad approach, like trying to identify variables for "Humanities" classes like English, Philosophy, Art, Communications, etc., the needs of someone teaching art history are likely quite different from someone teaching composition—or literature or reading.

Best practices related to online teaching in general (issues of communication, contact, response,
etc.), of course, apply across the board, no matter the discipline or kind of class being offered online. However, each discipline does have its own particular issues that may require additional consideration and additional sets of best practices. In Math, for example, the issues can range from how to present problems and solutions (symbols/real-time vs. static problem solving) to how to identify and work with math anxieties (Rochester Institute of Technology, 2012). Art history has considerations related to how to replicate the traditional slide lecture (Donahue-Wallace, K., La Follette, L., & Pappas, A., 2008). Any course with a lab component has its own distinct set of issues for replicating experiments, projects, demonstrations, etc.

Given the relatively brief history of online instruction and the rapid increase in and turnover of available technologies, best practices for individual disciplines are still being formulated. For example, according to the Conference on College Composition and Communication (CCCC) Committee for Best Practices in Online Writing Instruction (OWI), “Teachers and administrators, to include those in writing centers, typically are simply migrating traditional face-to-face writing pedagogies to the online setting—both fully online and hybrid. Theory and practice specific to OWI has yet to be fully developed and engaged in postsecondary online settings across the United States” (Hewett et al., 2011, p. 7). No doubt this kind of migration is the case in most disciplines. That is not to say that simply migrating a course online using traditional pedagogy will not lead to learning and student success. However, that learning and success may be improved with a consideration of discipline-specific theory and practice.

Again, focusing on online writing instruction, best practices are emerging, but slowly. The CCCC Committee, for example, has been researching OWI since 2008 and has at this point compiled an annotated bibliography of scholarship pertaining to OWI (Gibson & Hewett, 2011), conducted focus group interviews and visits to a variety of universities and colleges, collected data and information through two nationwide surveys (one related to fully online instruction and the other to hybrid instruction), and completed a preliminary report in April 2011. This committee will continue its work over the next two years, formulating best practices for teaching as well as professional development, online tutoring, and the particular needs of ESL students and students with disabilities in online environments; their work will culminate in not only a final report but also an updated Position Statement on the
Principles and Standards for OWI Preparation and Instruction; best practices will be shared with constituents in a variety of formats: the CCCC's Web site, its annual conference, the College Composition and Communication journal, other publications, etc.

The nature of the CCCC committee work would suggest that each department with online and hybrid classes needs to explore the emerging issues and research in its field to identify specific best practices for its discipline. Each department might create its own set of best practices to address the variables or obstacles unique to that discipline in terms of online instruction. However, it would be beneficial to all online instructors for departments share their best practices with one another.

Even an instructor involved in online writing instruction may find that some of the best practices in other disciplines could certainly be useful to his or her own. For example, oral presentations are a kind of best practice in a face-to-face setting but are sometimes not used in online settings because of logistical problems, according to Kenkel (2011). In an article in the Journal of Online Learning and Teaching, however, Kenkel provides specific plans and recommendations for using available technologies, peer review, and clear rubrics to facilitate oral presentations in online business communication courses. While Kenkel focuses on business courses, her suggestions could easily be adapted for presentations in composition classes. Similarly, West, Hall, Thackeray, & Hanson (2011) outline directions for using Facebook in online health education to provide students with the kind of social support network typically necessary to facilitate lifestyle changes in such classes. While English instructors have no need to encourage students to improve their health, certainly support and encouragement from peers may be of value in retention in composition classes.

The issues of discipline-specific variables and best practices are too complex for the scope of this inquiry, but their study is likely essential for improving student success in individual disciplines. Sharing discipline-specific best practices across disciplines is also likely to benefit instructors.

F. Recommendations

Workshops on the following topics through the Faculty Success Center and other venues are recommended; additionally, resources should be listed on the Distance Education site when appropriate:
Instructors need on-going training on available software and content delivery methods to offer students instruction and feedback that are not simply text-based, which would also address multiple learning styles.

Instructors need training on providing quality feedback and communication that is specific, timely, and useful.

Instructors need training on how to best utilize forums as well as how to facilitate peer-to-peer interaction.

Instructors should respond to emails within 24 hours.

Instructors should personalize their courses with their photo and voice.

Instructors should make course expectations clear.

Instructors should be trained in nonhierarchical teaching/communication methods as well as verbal and nonverbal techniques that signal immediacy and reduce transactional distance between themselves and their students.

Instructors should participate in the Early Alert program to intervene with struggling students and provide them with an additional means of feedback.

Instructors should provide regular opportunities for synchronous and asynchronous communication.

Instructors should provide timely, relevant, effectively delivered qualitative and quantitative feedback.

Instructors should ensure students access and reflect upon feedback. Adapting the Learning to Learn model to DE courses may help achieve this.

Chaffey should embed Supplemental Instruction Leaders (if possible) in high-risk DE courses to facilitate peer-to-peer interaction.

Chaffey should embed Success Guides (if possible) in high-risk DE courses.

Each department with online and hybrid classes needs to explore the emerging issues and research in its field to identify specific best practices for its discipline.

Each department needs to create its own set of best practices to address the variables or
obstacles unique to that discipline in terms of online instruction.

Departments should share their best practices with one another to further expand ideas and solutions for online variables.

II. Instructor Support

An online learning program should encourage and support information technology specialists and faculty with resources to provide quality education and student satisfaction (Mapuva, 2009).

The Instructor Support Workgroup reviewed the instructor support resources found at many community colleges, colleges and universities as well as those in place at Chaffey College. It was observed that any college with a Distance Education program included accompanying Web pages that included any instructor resources they might have in place. This evaluation found instructor support could be divided into the following categories:

- Providing Instructors with Best Practices for Teaching Distance Education Courses.
- Assisting and Supporting Use of the Learning Management System.
- Providing Information to Instructors.
- Promoting Discussion among Instructors.

A. Providing Instructors with Best Practices for teaching Distance Education Courses

Professional development and continuing education is an essential tool for improved instructional performance. "Only by continually arming instructors with the latest research, techniques and knowledge in the teaching profession can we expect them to stay effective" (American School Counselor Association, 2006, para. 1). In hopes of maintaining or increasing student academic success, today’s colleges and universities have made great efforts to incorporate professional development plans. Before one can determine which training activities are the most beneficial for instruction and student success, it is wise for educators to assess competencies as learning facilitators. Using the Association’s Core Competency Diagnostic and Planning Guide rubric can assist in a professional development plan to address competencies that need improvement.
Chaffey's online instructors should have access to Best Practices resources submitted by as many instructors from as many institutions and organizations as possible. Instructors should be referred references such as the Sloan Consortium Report which maintains the goal to support continuous improvement in the quality, scale and breadth of online education. The Sloan Consortium invites practitioners to share effective practices. This report synthesizes effective practices submitted by more than 150 Sloan-C organizations that are listed as of December 2008 in the Sloan-C Effective Practices online collection at http://www.sloanconsortium.org/ effective. The synthesis includes links to the provider institutions and to detailed postings about practices.

The college Distance Education Committee has been developing best practices for teaching DE courses. Although it might be said that maintaining regular and effective contact is of primary concern because the State and Federal Government require us to do so, Chaffey DE instructors recognize that this is a very important component toward promoting student success. This topic has been the subject of many discussions, a best practices document, presentations during Flex and a Faculty Support Center roundtable discussion. The DE Committee should plan on developing additional instructional best practices that will serve instructors as guides to student success.

B. Assisting and Supporting Use of the Learning Management System

Instructors must feel comfortable and confident in using the LMS so they can utilize the tools to help students learn and can assist students in the learning process.

The move to the Moodle LMS required the DE Office to plan and create a highly structured training process in which instructors were trained to use Moodle. This is now an ongoing process as new instructors begin teaching online, hybrid, or enhanced classes. In addition, Moodle labs were scheduled to help instructors ask questions and further develop their classes. The DE Office also notifies instructors about Moodle training classes offered by the @One Community College resource.

Instructor support requires quick answers to instructor questions as well as student LMS questions. In fall 2011 the DE Office added a .50 FTE Classified Help Desk Assistant to add to the support needs.
The upgrade to Moodle 2 that will take place this summer once again requires planning for transition. Moodle 2 is the biggest change in Moodle since its development. The new interface and tools available will help instructors toward the goal of greater student success. The key will be for instructors to feel comfortable in using these new tools easily and efficiently. The DE Office is now beginning to provide instructors with development class shells and online resources. Both online and classroom faculty training are currently being planned.

In Fall 2011 the Instructor Support Committee worked with the college Instructional Research Office to develop a survey to send to all online and hybrid instructors. A total of 12 instructors (32%) responded to the survey (see Appendix A). When asked about additional training topics they would like, six of nine respondents requested additional training on the Moodle Gradebook. In response the new DE mentors are placing special emphasis on Gradebook assistance for instructors.

Students must also feel comfortable and confident in taking an online class if they are to succeed. Too often students take an online class without understanding how different an online class is from a traditional face-to-face class. The DE Office has developed and is currently testing a “readiness” survey for students to take see if they are ready for an online class. The goal is to advise the student which will in turn help support the instructor.

Using the online platform is a very important factor in preparing the student to take an online class. Student comfort and confidence in using the platform helps the instructor to teach the subject and not have to teach the LMS, which in turn supports the instructor toward teaching with greater student success. The DE Office is currently developing additional online orientation activities. A new course embedded orientation component is being tested in the one of the current semester’s Moodle 2 pilot classes.

Using the LMS also requires training in design and pedagogy for online instruction. The online instructor survey resulted in 9 of 12 instructors (75%) stating that they would like to receive training in online course pedagogy and/or design. This training is in the future plans of the DE Office.
C. Providing Information to Instructors

The College Distance Education Web page is an important source of college DE information for instructors, students, and others. The current site was reviewed by the DE Office and other online instructors. As a result it was determined that the current site does not do an adequate job. Several other college sites were then reviewed and evaluated to find the best models. Los Angeles Valley College was determined to be the best overall site. It includes information and resources both students and instructors. The site is visually inviting, easy to navigate, and comprehensive. Instructor resources at this site include training information and schedules, DE policies and procedures, getting started with DE, and others.

The best sites for instructor Moodle training resources site were California State University Los Angeles and the University of Minnesota. Both sites include a variety of resources including documentation, instructions for creating and developing courses, training schedules, videos, and others.

The Chaffey site is in the process of being redesigned to create a new site that will be easy to read and navigate. In addition to providing information for students, it will be a hub for instructors to find information on all procedures, due dates, forms, training activities, and other resources.

D. Promoting Discussion among Instructors

Discussion among instructors about tools, assignments, techniques, and other approaches they use helps the Chaffey DE instructor community. This discussion is vital to the development of best practices of teaching as we strive to help students toward success in online classes. The online instructor Moodle community is currently being reviewed and revised.

The University of Minnesota Web site, "Technology Enhanced Learning at the University of Minnesota" area maintains a blog where instructors can post and comment on experiences, recommendations, and best practices in teaching online classes. This is an excellent source of information and reference for online instructors.

The DE Coordinator has worked with the Faculty Success Center to facilitate and present the following programs to help promote faculty discussion:
Roundtable, Regular and Effective Communication, Spring 2011
Roundtable, Distance Education Courses from the Student View, Fall 2011
Demonstration and Discussion, Moodle Tools to Promote Student Success, Spring 2012

E. Conclusion

Instructor support is a vital part of providing Chaffey College Distance Education instructors with the tools to help our students succeed.

F. Recommendations

Develop Best Practices for online instructors by consulting the DE committee and DE faculty. All online instructors should be encouraged to participate in the process. Other colleges should also be reviewed and consulted.

Continue introductory training for all instructors new to online teaching. This training should be online and face to face.

Develop training in advanced topics as required.

Publish a list of the many LMS and DE resources for online instructors that can be found online.

Develop a mechanism by which instructors can request topics for training. This training can then be accomplished through online, face-to-face, group, or other methods.

Develop a mechanism to survey DE instructors often about instructional needs other than the Learning Management System.

Redesign the DE Website as soon as possible. Make it a true portal for both instructors and students. Continuously update this site to reflect all changes as they occur.

Emphasize the importance of all Chaffey instructors as members of a DE community. Promote Discussion and sharing of teaching techniques and LMS sites among all faculty members.

Continue to facilitate the programs through the Faculty Success Center, including both faculty and students.
III. Promoting Student Success and Retention

A. Overview

According to an Office of Institutional Research report comparing student success and retention rates in face-to-face and distance learning courses from 2011 (see Appendix B), success rates for both face-to-face and distance education courses have trended upward since the 2000 - 2001 academic year. While the upward trend is slower in distance education, IR’s numbers indicate no serious discrepancies between the modes. The same study shows rising retention rates in both delivery modes and GPA dipping and then rising over the past eleven academic years. IR’s numbers thus seem to show that any measures to improve student success should seek first to slow the divergence in success rates and also, more systemically, to encourage faculty in their DE sections and the institution for their DE student and faculty populations to adopt practices that promote gradual, sustainable improvements in success rates.

Factors impacting student success at Chaffey identified by our workgroup are typical of those reported in reviews of the literature for other community colleges and four-year universities offering a smaller percentage of distance education course sections than traditional face-to-face ones. The factors most commonly affecting student success and retention rates include student readiness for distance education; implementation of institutional and course structures that promote retention and success, including orientation for students enrolled in distance education; expansion of professional development resources for Distance Education instructors; and accessibility of student and academic support specifically crafted for distance education.

B. Student readiness for distance education

In the California Community Colleges Chancellor's Office Distance Education Report (April 2011) student respondents to a Chancellor's Office survey indicate that students overwhelmingly choose distance education over face-to-face course offerings out of convenience (p. 35). A majority of students surveyed reported “heavy work load” or “family situation” as reason for enrolling in a distance education course. As well, students reported work and family as the most significant reasons for dropping a
distance education class for which they were enrolled. Similarly, the Chancellor's Report indicates that work and family were the most significant reasons that students dropped a face-to-face class, concluding that students who work a lot and/or have family difficulties are just as unlikely to succeed in a traditional course mode as with distance education (p. 34).

Considering this, we recommend a preliminary evaluation of students interested in distance education offerings occur before the student is cleared to enroll. Such an evaluation should measure student readiness for distance education, taking into consideration the extra-curricular influences most commonly reported as reasons for dropping a course. The evaluation could be strictly advisory in that the student completes the measure, and is then offered feedback regarding their readiness to succeed in an online teaching environment, but then allowed to enroll simply upon completion of the evaluation. Chaffey's Distance Education home page currently offers a sparse version of such a measure, providing a simple online multiple choice test comprised of eight questions. A more efficacious model might distinguish student readiness technologically from student readiness pedagogically (i.e. "student" skills)—such a model is provided by Cerro Coso College's Distance Education Program using two, ten-question surveys.

Alternately, students identified as unready for distance education modes can be strongly encouraged to meet with counselors to devise a more practical educational plan. If such an enrollment hurdle is implemented, students should be allowed to reassess at intervals determined through shared governance and curriculum reviews.

C. Institutional and course structure that promote retention and success

1. Orientation methods for students registering for distance education offerings

Anecdotal and literature-based evidence suggests that once enrolled in a distance education course, students often need basic information and training on utilizing the tools on an online teaching environment (Bozarth, Chapman, & LaMonica, 2004, p. 88-89).
Two levels of orientation are suggested: First, prior to the semester's start, streamlined Distant Education orientation regarding basic CMS functionality as well as time management\(^1\) and certain standardized Distance Education practices and policies (e.g. academic integrity, support services) should be offered through the Office of Distance Education; second, in the first week of the semester, course-specific orientation should be embedded directly in each Distance Education section as a first unit of instruction. Course-specific orientation should include units on any specialized tools (equation editors, spreadsheets, voice or podcasting software, etc.), course-specific pedagogies, specialized resources, and so on.

Once developed, orientation for Distance Education offerings must be required of all incoming DE students.

2. Standardized course entry survey

Since accurate data is crucial to identification of factors affecting retention and success, we also suggest that as part of the course-entry regimen, Institutional Research develop a standardized survey to administer to students during the first week of a Distance Education class.

3. Human presence design

Both the DE FIT's faculty survey and the Chancellor's Office Distance Education Report identifies "Human Presence Design" as a key factor in student retention and success in Distance Education; however, the report defines "Human Presence Design" narrowly as "the practice of incorporating video and audio of the instructor teaching an online course" (p. 30-31). While there is no doubt that incorporating video and/or audio to supplement text-based content, we note that the term "human presence" should be taken more broadly: Encompassing several of the practices identified in the Chancellor's report, we recommend that Distance Education instructors seek to include (and that the District support with the necessary resources—see 3 below) as much "human presence" within courses as possible. These include video/audio supplement to text-based content; embedding of counselors

---

\(^1\) Student responses to the DE FIT's Student Survey indicate that students see time management as the main obstacle to their success in Distance Education classes.
(when appropriate), Success Center tutors, librarians, and other course-appropriate resource specialists; regular and required synchronous student-student contact (through chats, Skype, FaceTime, etc.); and regular and required synchronous instructor-student contact (through similar methods).

D. Expansion of professional development resources for Distance Education instructors

Until the current academic year, college-sponsored professional development opportunities for Distance Education instructors had largely been limited to basics. Commencing in Spring 2012, DE Mentors have been hired with four specific responsibilities: "Assist in orientation of faculty new to distance education; Facilitate intermediate and advanced training; Promote best practices as developed by the Distance Education Committee and departments; Provide resources for distance education faculty" (2011-2014 Agreement, p. 52). The Mentors will be responsible for many facets of helping Chaffey's DE faculty. While all the details are being worked out, basic help can be found on the Chaffey Faculty Moodle Web site, in the DE Mentor Forum. Additionally, workshops will be conducted to help faculty create course web sites implementing best educational practices for best possible student success.

Given the extent of DE Mentor responsibilities, their potential for expansion, and their expected value as facilitators of faculty success in distance education, our group strongly recommends that these positions be made permanent and full-time.

Beyond the hiring of DE Mentors, we suggest that the District begin to implement, perhaps through Summer Institutes, an expanded program of professional development for instructors, perhaps following the model of Mt. San Jacinto's @MSJC Teaching and Learning Academy. The week-long series of classes and supported work sessions teaches instructors how to build course websites and how to create course modules in the CMS. Such a program can easily be tailored to highlight strategies to improve student success and retention. Furthermore, it would assist to insure that Distance Education instructors are prepared to develop course sites designed for student success and retention.

An additional means of professional development could include a series of Flex activities, (that could be paced across fall and spring semester to incorporate implementation time and feedback)
scheduled sequentially and without overlap. In 2009 and 2010, during FLEX Chaffey’s Professional Development committee offered certificate programs that thematically grouped professional development offerings. Requirements for completion were outlined in the FLEX handbook. Using this model, perhaps the completion of a specified number of courses designed and offered by DE Mentors could result in the awarding of a DE certificate.

E. Availability of online student learning support services

As with face-to-face courses, and to comply with WASC accreditation standards, student learning support services specific to the online learning environment need to be developed. Students enrolling in online classes indicate in the Chancellor’s office report that work and family difficulties prevent them from accessing campus services as those support centers are open during traditional business hours and their distance is often prohibitive of student use. For those reasons, services such as counseling, tutoring, and access to library resources need to be made available online, either through embedding within courses or as separate online entities, to improve student success rates in distance education courses. Several studies (see, for example, Bozarth, Chapman & LaMonica, 2004, p. 91 and Menchaca & Bekele, 2008, p. 233) assert that the availability of online support services positively influence student success. Additionally, Chaffey’s own experience with Success Centers shows a strong positive correlation between this outside assistance and success rates in face-to-face classes, and there is strong reason to believe that a similar effect would occur in online environments.

F. Conclusion and Recommendations

For increased student success in distance education, the College should identify students most likely to succeed in DE courses using comprehensive surveys to assess both student and technological skills taken by students prior to enrollment. Additionally crucial is the analysis of the survey by trained counselors. Response to the student needs to be prompt and unambiguous. A student should know if she or he has the skills necessary to enroll in any DE course.
For students enrolled in the DE course(s), two levels of orientation are indicated: a "general" orientation covering the CMS, time management, and standardized pedagogies offered through the Distance Education office and a "specific" orientation offered as part of the week one curriculum in each class. Moreover, access to student support campus resources online is essential. Counseling services, course management (Moodle) support, library resources, and tutoring must all be considered for the Distance Education student's success.

On the instructional and institutional sides, through Professional Development and the DE Mentors, instructors must be encouraged to design their course sites for "human presence" and to ensure that multiple avenues of regular effective contact are maintained. The District should implement enhanced professional development training to ensure the promulgation of these proven methods for promoting student success.
Research Brief

Distance Education Faculty Inquiry Team Survey Results
Fall 2011

Overview. The Distance Education (DE) Faculty Inquiry Team (FIT) and the Office of Institutional Research collaborated to develop a survey that would assess the extent to which the Moodle training and help desk support provided to DE faculty meets faculty needs. In Fall 2011, an online survey was sent to all faculty teaching online and/or hybrid courses (37 total faculty) in the current term. Six survey items asked these faculty to provide feedback regarding Moodle training and help desk support. Faculty responses are reported below.

Findings. A total of 12 faculty (32% of all DE faculty) completed the survey. Table 1 displays open-ended responses to the first survey item: “You've received training on how to use Moodle. Are there other Moodle training topics that you would like to have provided that would help you to improve student success?” Six of nine respondents requested additional training on the Moodle grade book.

Table 1. Additional Moodle Training Topics Faculty Would Like to Be Provided

<table>
<thead>
<tr>
<th>Additional Moodle Training Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>BROWN BAG WORKSHOPS FOR FACULTY DURING COLLEGE HOUR TO SHARE IDEAS WOULD BE HELPFUL.</td>
</tr>
<tr>
<td>EFFICIENT USE OF GRADEBOOK, AND HOW TO USE GRADEBOOK TO DISPLAY CURRENT COURSE PERCENTAGE, INSTEAD OF PERCENTAGE OF COURSE COMPLETED TO DATE.</td>
</tr>
<tr>
<td>FORUMS WERE KIND OF CONFUSING TO START. MORE TRAINING ON THAT WOULD HELP.</td>
</tr>
<tr>
<td>GRADEBOOK :)</td>
</tr>
<tr>
<td>HOW TO USE THE MOODLE GRADEBOOK.</td>
</tr>
<tr>
<td>MODIFYING THE GRADEBOOK TO SUIT MY CLASS NEEDS. DIFFERENT TEST QUESTIONS: WHAT THEY ARE AND HOW TO USE/SET UP</td>
</tr>
<tr>
<td>MOODLE GRADE BOOK.</td>
</tr>
<tr>
<td>SINCE MOODLE TRAINING WAS BRIEF, IT WOULD BE GREAT TO HAVE REFRESHERS FROM TIME TO TIME OR SPECIFIC TIMES SET ASIDE FOR TOPICS SUCH AS THE GRADEBOOK, ATTACHING MEDIA FILES AND DISCUSSION BOARDS.</td>
</tr>
<tr>
<td>THE BLACKBOARD/MOODLE SHIFT HAPPENED A BIT PREMATURE, WHICH SENT THE DE PEOPLE INTO A TIZZY AND INSTRUCTORS GOT THE BLAME FROM STUDENTS WHO CALLED THE BOSSES. MORE DE FACULTY MIGHT HELP.</td>
</tr>
</tbody>
</table>
Table 2 displays the distribution of yes/no responses to the second survey item: "Would you like to receive training in online course pedagogy and/or design?" Of the 12 faculty who answered the item, 9 responded "yes."

Table 2. Responses to Yes/No Survey Item About Training in Online Course Pedagogy and/or Design

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you like to receive training in online</td>
<td>9 (75.0%)</td>
<td>3 (25.0%)</td>
<td>12 (100.0%)</td>
</tr>
<tr>
<td>course pedagogy and/or design?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Three survey items asked faculty about their experiences with the DE help desk. To begin, faculty answered whether they had ever used the DE help desk. Seven of the twelve respondents answered "yes." These seven faculty answered two additional items about how frequently they have used the help desk and the effectiveness of the assistance they received. As seen in Table 3, the number of times respondents used the DE help desk ranged from 1 to 20. From Table 4, most (5/7 or 71%) respondents indicated that the assistance they received through the DE help desk was very effective.

Table 3. Number of Times Respondents Have Used the DE Help Desk

Table 4. Respondents' Ratings of the Effectiveness of the Assistance Received Through the DE Help Desk

<table>
<thead>
<tr>
<th>How Effective Was the Assistance You Received Through the DE Help Desk?</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Effective</td>
<td>5</td>
<td>71.4</td>
</tr>
<tr>
<td>Somewhat Effective</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>Neither Effective Nor Ineffective</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>Somewhat Ineffective</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Very Ineffective</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

A final survey item asked respondents to comment on other services, besides training and help desk support, that could be provided to help them improve student success. Eight faculty responded to this item. Their comments are listed in Table 5.

Table 5. Respondents Suggestions For Additional Services, Besides Training and Help Desk Support, That Would Help Them to Improve Student Success

<table>
<thead>
<tr>
<th>Other Services That Would Help Faculty Improve Student Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>A SERVICE TICKET SYSTEM TO ENSURE THAT TECHNICAL ISSUES REFERRED FOR ASSISTANCE REMAIN OPEN UNTIL SOLVED.</td>
</tr>
<tr>
<td>BROWN BAG SHOW AND TELLS OF DIFFERENT INSTRUCTORS' MOODLE SITES.</td>
</tr>
<tr>
<td>GIVING PRIORITY REGISTRATION TO DE LEVEL COURSES TO THOSE WHO HAVE ALREADY SUCCESSFULLY COMPLETED ONE OR MORE COLLEGE LEVEL COURSES, ONLINE OR F2F, AT CHAFFEY.</td>
</tr>
<tr>
<td>IT WOULD HELP TO HAVE MINUTES OF DE COMMITTEE MEETINGS, UPDATES FROM THE DE FIT AND OTHER RELATED INFORMATION DISTRIBUTED REGULARLY. THERE IS VERY LIMITED FLOW OF INFORMATION REGARDING DE TO FACULTY NOT MEMBERS OF THESE GROUPS.</td>
</tr>
</tbody>
</table>
Perhaps the question should be asked what students can do to improve success. It might be beneficial for students to have to pass a quick online quiz and be able to understand how to use Moodle before being allowed to enroll in an online class. Or perhaps students who should be required to attend an orientation designed to teach students about ways to be successful in an online class.

Perhaps, being able to hold live chats with audio?

Student training prior to taking a course.

The person who answers the phone needs to know Moodle.

Any questions about this research brief can be directed to the Office of Institutional Research at: (909) 652-6471 or you may send an e-mail request to carli.straight@chaffey.edu.
### Success Rates:

<table>
<thead>
<tr>
<th>Year</th>
<th>Face-to-Face Interaction</th>
<th>Distance Learning</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Success Rate</td>
<td>N</td>
</tr>
<tr>
<td>2010-2011</td>
<td>105,358</td>
<td>70.00%</td>
<td>10,028</td>
</tr>
<tr>
<td>2009-2010</td>
<td>110,821</td>
<td>67.97%</td>
<td>8,652</td>
</tr>
<tr>
<td>2008-2009</td>
<td>107,483</td>
<td>65.92%</td>
<td>7,817</td>
</tr>
<tr>
<td>2007-2008</td>
<td>102,614</td>
<td>63.86%</td>
<td>6,880</td>
</tr>
<tr>
<td>2006-2007</td>
<td>96,029</td>
<td>63.71%</td>
<td>4,698</td>
</tr>
<tr>
<td>2005-2006</td>
<td>95,840</td>
<td>62.96%</td>
<td>3,936</td>
</tr>
<tr>
<td>2004-2005</td>
<td>96,281</td>
<td>63.90%</td>
<td>3,986</td>
</tr>
<tr>
<td>2003-2004</td>
<td>96,421</td>
<td>63.25%</td>
<td>3,295</td>
</tr>
<tr>
<td>2002-2003</td>
<td>100,679</td>
<td>62.27%</td>
<td>2,215</td>
</tr>
<tr>
<td>2001-2002</td>
<td>89,999</td>
<td>61.01%</td>
<td>1,573</td>
</tr>
<tr>
<td>2000-2001</td>
<td>85,558</td>
<td>60.68%</td>
<td>627</td>
</tr>
</tbody>
</table>

### Retention Rates:

<table>
<thead>
<tr>
<th>Year</th>
<th>Face-to-Face Interaction</th>
<th>Distance Learning</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Retention Rate</td>
<td>N</td>
</tr>
<tr>
<td>2010-2011</td>
<td>105,358</td>
<td>87.28%</td>
<td>10,028</td>
</tr>
<tr>
<td>2009-2010</td>
<td>110,821</td>
<td>86.69%</td>
<td>8,652</td>
</tr>
<tr>
<td>2008-2009</td>
<td>107,483</td>
<td>86.24%</td>
<td>7,817</td>
</tr>
<tr>
<td>2007-2008</td>
<td>102,614</td>
<td>85.00%</td>
<td>6,880</td>
</tr>
<tr>
<td>2006-2007</td>
<td>96,029</td>
<td>85.85%</td>
<td>4,698</td>
</tr>
<tr>
<td>2005-2006</td>
<td>95,840</td>
<td>84.81%</td>
<td>3,936</td>
</tr>
<tr>
<td>2004-2005</td>
<td>96,281</td>
<td>84.59%</td>
<td>3,986</td>
</tr>
<tr>
<td>2003-2004</td>
<td>96,421</td>
<td>80.85%</td>
<td>3,295</td>
</tr>
<tr>
<td>2002-2003</td>
<td>100,679</td>
<td>79.24%</td>
<td>2,215</td>
</tr>
<tr>
<td>2001-2002</td>
<td>89,999</td>
<td>77.78%</td>
<td>1,573</td>
</tr>
<tr>
<td>2000-2001</td>
<td>85,558</td>
<td>76.91%</td>
<td>627</td>
</tr>
<tr>
<td>Year</td>
<td>Face-to-Face Interaction</td>
<td>Distance Learning</td>
<td>Effect Size</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------</td>
<td>-------------------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>Mean G.P.A.</td>
<td>N</td>
</tr>
<tr>
<td>2010-2011</td>
<td>87,625</td>
<td>2.64</td>
<td>8,422</td>
</tr>
<tr>
<td>2009-2010</td>
<td>90,995</td>
<td>2.58</td>
<td>7,341</td>
</tr>
<tr>
<td>2008-2009</td>
<td>87,568</td>
<td>2.53</td>
<td>6,454</td>
</tr>
<tr>
<td>2007-2008</td>
<td>82,368</td>
<td>2.49</td>
<td>5,576</td>
</tr>
<tr>
<td>2006-2007</td>
<td>77,399</td>
<td>2.45</td>
<td>3,822</td>
</tr>
<tr>
<td>2005-2006</td>
<td>75,621</td>
<td>2.45</td>
<td>3,086</td>
</tr>
<tr>
<td>2004-2005</td>
<td>76,246</td>
<td>2.49</td>
<td>3,160</td>
</tr>
<tr>
<td>2003-2004</td>
<td>72,794</td>
<td>2.59</td>
<td>2,519</td>
</tr>
<tr>
<td>2002-2003</td>
<td>75,001</td>
<td>2.61</td>
<td>1,466</td>
</tr>
<tr>
<td>2001-2002</td>
<td>66,515</td>
<td>2.62</td>
<td>980</td>
</tr>
<tr>
<td>2000-2001</td>
<td>62,042</td>
<td>2.63</td>
<td>419</td>
</tr>
</tbody>
</table>
V. Overall Conclusions

Effective Online Teaching Practices

Summary of Research Recommendations:

• Instructors should implement a myriad of content delivery methods to address multiple learning styles and engage students. Instructors should personalize courses with photo and video.

• Instructors should provide qualitative and quantitative feedback that is specific, timely, and relevant. The research recommends responding to emails within 24 hours.

• Instructors should ensure students access and reflect upon feedback.

• Instructors should utilize synchronous and asynchronous communication.

• Instructors should effectively utilize forums and facilitate peer-to-peer interaction.

• Instructors should implement nonhierarchical teaching/communication methods, using both verbal and non-verbal techniques, to signal immediacy and reduce transactional distance between themselves and their students.

• Each department should create its own set of best practices to address online instruction issues variables unique to that discipline.

Workgroup Recommendations:

• The college should continue to provide best practices workshops and support on content delivery, course design, feedback, peer-to-peer interaction, nonhierarchical communication, and asynchronous and synchronous communication. These areas could be addressed by the Faculty Success Center, the Distance Education mentors, the Distance Education office and the Distance Education Committee.

• Each department should identify and address issues unique to teaching that discipline online and share identified best practices with the college.

• The college should experiment with embedding SI Leaders and/or Success Guides in Distance Education courses with low success rates.
DE instructors should participate in the Early Alert program to intervene with struggling students and provide them with an additional means of feedback.

DE instructors should consider implementing the Learning to Learn approach to ensure student success in online courses.

Instructor Support

Summary of Research Recommendations:

• An online learning program should encourage and support distance education faculty with resources to provide quality education and student satisfaction.

• Professional development and continuing education is an essential tool for improved instructional performance.

• Instructors should be made aware of best practices shared by other institutions.

• Instructor resources should include a forum for discussion.

• Instructors should be supported with a comprehensive Web site where resources for teaching practices and LMS information are easily available.

Workgroup Recommendations:

• Develop Best Practices for online instructors by consulting the DE committee and DE faculty. All online instructors should be encouraged to participate in the process. Other colleges should also be reviewed and consulted.

• Continue introductory training for all instructors new to online teaching. This training should be online and face to face.

• Develop training in advanced topics as required.

• Publish a list of the many LMS and DE resources for online instructors that can be found online.

• Develop a mechanism by which instructors can request topics for training. This training can then be accomplished through online, face-to-face, group, or other methods.
• Develop a mechanism to survey DE instructors often about instructional needs other than the Learning Management System.

• Redesign the DE Website as soon as possible. Make it a true portal for both instructors and students. Continuously update this site to reflect all changes as they occur.

• Emphasize the importance of all Chaffey instructors as members of a DE community. Promote Discussion and sharing of teaching techniques and LMS sites among all faculty members.

• Continue to facilitate the programs through the Faculty Success Center, including both faculty and students.

Student Support/Success

Summary of Research Recommendations:

• Institution and DE Faculty encouraged to adopt practices that promote gradual and sustainable improvements in success and retention rates.

• Once enrolled in a distance education course, students often need basic information and training on utilizing the tools required in an online teaching environment.

• "Human Presence Design" is identified as a key factor influencing student retention and success.

Workgroup Recommendations:

• We recommend a preliminary evaluation of students interested in enrolling in distance education courses that measures student readiness for online instruction, considers the most common factors reported by students as reasons for dropping a DE course, and offers feedback to students regarding their readiness to successfully complete a course in an online environment.

• Upon completion of a preliminary assessment of readiness, and enrollment in an online course, we recommend that students complete an online orientation offering basic training on the LMS and covering academic policies specifically related to online teaching. During the first week of instruction, a second level of embedded orientation should address course specific information and policies that also serves as the first unit of instruction.
To close the loop, we recommend that Institutional Research develop a standardized survey that is administered as a pre-test in all DE courses during the first week of instruction and analyzed against success rates and retention upon course completion.

We recommend that DE educators be encouraged to include as much "human presence," in a broad understanding of the term, within a course as possible.

To facilitate the closing of differences between face to face and distance education courses with regard to student success and retention rates, we highly recommend that recently instituted DE Mentors positions be made permanent and full-time.

In addition to faculty support in the form of DE Mentors, we recommend implementation of an expanded program of professional development specifically addressing LMS skills and DE pedagogy.

Finally, we recommend that various and multiple forms of online support services for students, modeled after the resources available to students in face to face courses, be made available to students of DE courses.
VI. References

A Synthesis of Sloan-C Effective Practices, December 2008
Full Text from ERIC Available online: http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=EJ837518
California Community Colleges Chancellor’s Office. (April 2011). Distance Education Report.


Menchaca, Michael P., Bekele, Teklu Abate. (2008). Learner and Instructor Identified Success Factors in Distance Education, Distance Education, 39(3), 231-252.

Rochester Institute of Technology. (2012). Teaching math online. RIT Online Learning. Retrived from http://online.rit.edu/about/newsletter/one_article.cfm?which=70

Rowe, Anna and Leigh N. Wood. (2007, December 28) What feedback do students want?* Australian Association for Research in Education.

Schutt, Maria, Allen, Brock S. and Laumakis, Mark A. (2009) The Effects of Instructor Immediacy Behaviors In Online Learning Environments, Quarterly Review of Distance Education, 10 (2), 135-148.


Western Association of Schools and Colleges. (June 2011). Guide to Evaluating Distance Education and Correspondence Education.