

Blended Learning in Higher Education: Comparison of Faculty and Student Attitudes  
Regarding Course Effectiveness

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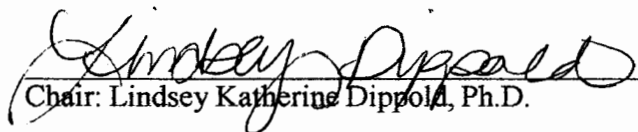
Approval Page

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Regarding Course Effectiveness

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## Abstract

A successful blended classroom includes the important essentials of both traditional and online education; creating a new approach to instructional learning. With the steadily increasing number of blended classes offered at community colleges, an opportunity exists to inform the purposeful planning of blended classes to best meet students' needs through identifying and comparing both faculty and students' perceived course effectiveness factors and challenges. The specific problem is that faculty and students' perceived factors for possible increased course effectiveness and their perceived challenges for decreased course effectiveness have not been previously identified then compared and contrasted. Filling the gap with this specific perception knowledge allows educators to more purposefully and strategically plan curriculum, thus increase student success. The purpose of this quantitative methodology research study was to examine perceived attitudes of blended learning faculty and students. Secondly, best practices were identified for developing blended courses that promote quality higher education instruction and learner success as perceived by both the students and the faculty at a large community college in the Southwestern United States. Two web surveys were administered, one for faculty and one for students to gather data through quantitative and open-ended questions. For this purposeful sample study, the participants were 31 faculty members who taught blended classes and 171 students over the age of 18 who attended blended classes at the specific college during the Spring 2014 and Fall 2014 semesters. The quantitative data obtained from each of the surveys was analyzed through descriptive and inferential statistics. Sixteen *t* test independent two-sample assuming unequal variances found the results were split depending on the course effectiveness factor being

addressed. The null hypothesis was rejected for six of the twelve benefit factors (flexibility, time management, instructor access, interactive learning materials, optimized class time, and success measured by withdrawal rates) and one of the four challenge factors (reduced access to instructor). Themes that emerged from the open-ended responses included the focus on flexibility, technology, self-efficacy, and communication. Many of the factors identified, if addressed, could increase the course effectiveness, satisfaction, retention and completion, and ultimately, successful student learning in the blended class modality.

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## Chapter 1: Introduction

The concept of blended learning is widely acknowledged in education today and many colleges and universities are quickly implementing the blended environment as an option for their students (Duckworth, 2010; Sloan C, 2008; U.S. Department of Education, 2010). Often considered the best of both worlds of online and face to face education, blended learning provides students with the opportunity to have in person interaction as well as flexibility (Sloan C, 2008; U.S. Department of Education, 2010). This study will focus on the importance of developing blended learning purposefully and strategically as a key to quality instruction and learner success. Examining the attitudes of community college faculty members and students regarding blended learning and factors that contribute to course effectiveness can offer insight into best practices for success (Gonzalez-Castillo, 2008). For consistency, this study will use the term blended learning to refer to both blended and hybrid learning, as the expressions are interchangeable.

Blended learning is affecting the way students and faculty interface (Manning, 2010; Sloan-C, 2009; U.S. Department of Education, 2010). Educators must gain a better understanding of the blended learning pedagogy needed to ensure success in this specific environment including the importance of identifying blended learning success factors (Bigatel, P., Ragan, L. Kennan, S., May, J., & Redmond, B., 2012; Campbell, 2010; Churches, 2009; Duckworth, 2010; Gebara, 2010; MLE, 2009; Munson, 2010; Picciano, 2009; Smith, B., 2010). In addition, administrators and course developers need a process for planning and implementing curricular issues within the appropriate context of a blended learning setting (McDermott, 2010; O'Laughlin, 2007; Swiderski, 2009; Weimer, 2009). Held (2009) recognized the challenges of teaching in a blended learning

environment and recommended further study of the learners' perceptions and general needs for blended learning and related effective teaching practices in higher learning.

### **Background**

Blended learning is more than just linking traditional classroom education with distance education tools; it encompasses multimodal delivery intended to promote learning by complementing each other (Singh, 2003 as cited in Smith, B., 2010). A successful blended classroom includes strategically combining and relating the important essentials of both traditional and online education, creating a new approach to instruction that can make it work effectively (Bigatel, P., Ragan, L. Kennan, S., May, J., & Redmond, B., 2012; Gebara, 2010).

Attention on blended learning courses is intensifying, indicated by the literature review throughout higher education (Campbell, 2010, Duckworth, 2010; Gebara, 2010, Gonzalez-Castillo, 2008, Munson, 2010; Smith, B., 2010). The focus of past research in post-secondary education has been primarily at the university level even in the newer studies (Campbell, 2010, Duckworth, 2010; Gebara, 2010; Munson, 2010; Smith, B., 2010). However, a surge of blended courses in community colleges has created a new area of research for studying the need for quality instruction, course effectiveness as it applies to learner success, and learner persistence in the community college setting (Gonzalez-Castillo, 2008, Manning, 2010).

Dr. Gonzalez-Castillo's study of faculty attitudes concerning student course effectiveness factors for blended classes in an urban community college was the springboard for this proposed study (2008). This study is planned to expand to include a comparison of student and faculty perceptions of factors contributing to course

effectiveness as well as perceived challenges that may result in decreased course effectiveness at a large, diverse, community college in the Southwest.

The number of students taking blended classes doubled at the participating college from the 2008-2009 to 2009-2010 academic years (MCC, 2010a) and increased to more than 4,500 students in the 2013-2014 academic year (MCC Hybrid, 2014). The number of faculty teaching blended classes at the same college increased from 24 in the Fall 2009 to 54 in the Spring 2010 semester (MCC, 2010a). A check of the college's online class schedule for the Spring 2014 semester indicated 95 faculty scheduled to teach blended classes. With the increasing number of blended classes offered at the participating college, a possible opportunity existed to influence the purposeful planning of blended classes to best meet students' needs through identifying both faculty and students' perceived course effectiveness factors and challenges and determining if there is a significant difference in their perceptions (Tung, 2007).

### **Statement of the Problem**

With the steadily increasing number of blended classes offered at the participating college, a possible opportunity existed to influence the purposeful planning of blended classes to best meet students' needs through identifying both faculty and students' perceived course effectiveness factors and challenges and determining if there is a significant difference in their perceptions (Tung, 2007). The specific problem was that faculty and students' perceived factors for possible increased course effectiveness and their perceived challenges for possible decreased course effectiveness had not been previously identified then compared and contrasted. Filling this gap with this specific knowledge may allow educators to more purposefully and strategically plan curriculum



and increase student success through integrating the combined perceived course effectiveness characteristics and addressing challenges (Baker, 2007; Duckworth, 2010; Gebara, 2007, Gonzalez-Castillo, 2008, Tung, 2007).

This research was a study of blended learning in higher education at a large, diverse community college in the southwestern United States. Since only a small number of blended classes were available during the Summer 2014 semester (12), the focus was on the blended learning classes during the Spring 2014 and Fall 2014 semesters at the target college. In her study at this same college, Held (2009), recognized the existence of challenges of teaching in a blended learning environment and recommended further study of the learners' perceptions and general needs for blended learning and related effective teaching practices in higher learning. The primary problem addressed by the research was to compare the perspectives and attitudes of the faculty and students regarding factors that may increase course effectiveness and challenges that may lead to decreased course effectiveness and secondarily, to use the information gathered to identify best practices and strategies necessary to help learners be successful in a blended learning environment.

One of the target college's 2011 through 2014 strategic priorities was to expand e-learning opportunities, specifically providing programs for diverse student populations and responding to the need for high demand courses through blended learning options (MCC, 2011).

Data gathered from this study directly addressed and added supporting information for this priority. Faculty at the participating college can purposefully and strategically incorporate identified key blended learning course effectiveness success factors and acknowledged best practices into their courses and enable them to better address perceived faculty and student challenges.

## **Purpose of the Study**

The purpose of this quantitative methodology research study was to examine attitudes of faculty and students regarding factors that may increase course effectiveness and challenges that may decrease course effectiveness. Secondly, there was the opportunity to identify best practices and a strategic approach in developing blended courses that promote quality higher education instruction and learner success as perceived by both the students and the faculty at a large community college in the Southwestern United States.

The goal of this study at the targeted community college was primarily to examine and compare the attitudes of faculty and students regarding course effectiveness factors. Once the factors were determined, it was anticipated to secondarily identify ways to purposefully and strategically address the challenges of a blended modality as perceived by faculty and students to promote quality instruction and learner success. Knowledge gained through this study should enable institutions of higher learning to purposely and strategically incorporate teaching and learning success factors in the blended environment as a key to quality instruction and learner success (Baker, 2007; Duckworth, 2010; Gebara, 2007; Gonzalez-Castillo, 2008, Picciano, 2009)

Two web surveys were administered, one for faculty, and one for students to gather textual data through quantitative and open-ended questions to obtain data relevant to fulfilling the purpose of the study. For this purposeful sample study, the participants were faculty members who taught blended classes and students over the age of 18 who attended blended classes at the specific college. The focus was faculty and students who

participated in blended learning classes during the Spring 2014 and Fall 2014 semesters. Descriptive statistics and typological analysis were in the data analysis.

### **Research Questions**

For educators to make decisions about the strategic design of blended learning, they need to understand the characteristics and factors contributing to learners' success in order to develop necessary implementation strategies. The study answered the following research questions through surveys of faculty and students at the participating college.

**Q1.** What were the attitudes of faculty and students towards factors that may increase course effectiveness in a blended classroom environment?

**Q2.** Was there a difference in the attitudes of faculty and students regarding factors that may increase course effectiveness for students of blended classes?

**Q3.** What were the attitudes of faculty and students towards challenges that may decrease course effectiveness in a blended classroom environment?

**Q4.** Was there a difference in attitudes of faculty and students regarding challenges that may decrease course effectiveness for students of blended classes?

### **Hypotheses**

**H2.** Was there a difference in the attitudes of faculty and students regarding factors that may increase course effectiveness for students of blended classes?

**H10.** There was no significant difference between faculty and students' attitudes of the factors that may increase course effectiveness for students of blended learning classes.

**H1<sub>a</sub>.** There was a significant difference between faculty and students' attitudes of the factors that may increase course effectiveness for students of blended learning courses.

**Q4.** Was there a difference in attitudes of faculty and students regarding challenges that may decrease course effectiveness for students of blended classes?

**H2<sub>0</sub>.** There was no significant difference between faculty and students' attitudes of the challenges that may decrease course effectiveness for students of blended learning classes.

**H2<sub>a</sub>.** There was a significant difference between faculty and students' attitudes of the challenges that may decrease course effectiveness for students of blended learning classes.

In addition to the primary research questions, the surveys also included questions to gather data from faculty concerning (a) course effectiveness factors for faculty; (b) challenges for faculty; and (c) possible implementation strategies to address student and faculty challenges and concerns with the purpose to increase course effectiveness and learner success.

### **Nature of the Study**

The study used a quantitative methodology approach to explore and evaluate both the students' awareness, attitudes, and perspective of course effectiveness factors and the perspective and attitudes of the faculty teaching in the blended environment at the participating college. The study was non-experimental, descriptive, with a focus on a naturalistic approach that assumed that the perspectives of the participants involved construct social reality

The focus of the study was on the process, understanding that change is ongoing (Creswell, 2004; Yin, 2004). The conceptual and theoretical framework of the study was derived from gaps in literature and from both the students' and faculty's perspective of effective blended learning course effectiveness factors and strategies leading to quality, successfully blended learning in a higher education environment.

The focus of applied research was on addressing real-life issues with (a) a purpose to create a better solution based on the knowledge gained through the study, (b) a context wherein the investigation and process begin to solve a problem utilizing quantitative and open-ended questions, (c) an emphasis on external validation associated with solving issues, and (d) analysis of a problem from multiple perspectives (Gaber, 2010).

For this study, the goal was to determine perceived factors that may increase course effectiveness and perceived challenges that may decrease course effectiveness and that may lead to identifying best practices for blended learning for the college studied. These best practices included (a) the purpose of blended learning, (b) strategies used or planned, (c) quality guidelines, and (e) identifying and meeting course effectiveness factors.

As the data collected and analyzed in this study included both the student and faculty perspectives, students may also benefit from the study as the gathered information may influence faculty and administration to meet the student needs more effectively, thereby promoting learner success (Baker, 2007).

The objectives for this exploratory and evaluative study included: (a) reviewing and exploring existing blended learning models through a literature review to gain further theoretical knowledge in this area; (b) adding to the existing literature collection and

scholarly research in the area of blended learning and its effect on teaching and learning; (c) conducting surveys of faculty and students in blended classes at a two-year community college; (d) compiling, analyzing, and evaluating data from the study using a quantitative research method; (e) identifying and comparing the course effectiveness factors from the perspectives of faculty and students in blended classes; (f) compiling a list of best practices for strategic implementation for blended learning from the summarized findings; (g) identifying and reporting to faculty ways to incorporate the identified success factors purposefully and strategically to enhance student learning; and (h) identifying any gaps between the students' perspectives, faculty assumptions, and current literature about the purpose, strategies, and characteristics of quality instruction leading to blended learner success.

Gaining entry to the culture in this type of setting can be difficult. However, in this case, as a full-time, residential faculty member in the Business and Information Systems Department of a large, diverse community college in the Southwestern United States, access to the participants in this study was available. The stakeholders interested in or affected by the results of the study included: (a) current and future blended learning students, (b) faculty teaching blended classes at the proposed site, and (c) other faculty, colleges, and universities.

The researcher used theoretical frameworks as a guide to structure the study, an exploratory, non-experimental, study of effective blended learning characteristics and strategies with an emphasis on discovery, not statistical inference. The category was survey research because quantitative and open-ended questions would result in the most information gathered from participants. Although the focus was on one large, diverse,

community college in the Southwest, the findings should assist with solving blended learning issues in other institutions of higher learning.

### **Significance of the Study**

The significance of the study was to determine perceptions of faculty and students concerning the relevant factors that may contribute to an increase in course effectiveness and challenges that may contribute to a decrease in course effectiveness in the blended classroom and to determine if there is a significant difference between faculty and students' perceptions of these factors and challenges. Secondly, the significance was to discover suggested best practices for the college, and to discover potential strategies that can be implemented to increase learner success. There was a comparison of faculty and adult students from the blended class modality. For further patterns or relationships that were discovered, the appropriate comparisons were summarized in statistical and graphical format to illustrate the differences.

### **Definition of Key Terms**

**Alternative delivery.** Alternative delivery is a way to identify classes and coursework delivered outside the traditional, face to face, classroom environment on campus (Collins, 2007).

**Asynchronous communication.** Asynchronous communication is type of contact between students and instructors that does not rely on time or place for interaction. Examples include e-mail and discussion board postings (University of Texas, 2010).

**Blended learning or hybrid learning.** Blended or hybrid learning is a class that is a planned blend of both traditional classroom instruction and online or other asynchronous components; it is not delivered completely online but has reduced seat time

compared to a face to face course (Sloan C, 2008). This study used the term blended because of the similarity in terms.

**Class.** A class, sometimes referred to as a section, is composed of an instructor and a group of students meeting for a specific length of time within a semester to address course competencies, usually culminating in students earning credit (Collins, 2007)

**Course.** A course is the official combination of a specific course name, number, description, and competencies approved by an educational body (Collins, 2007).

**Course effectiveness.** Course effectiveness is not dependent on delivery modality but based upon methodology, content, organization and presentation of the teaching and learning process (Kuong, 2009).

**Course effectiveness factors.** When present, course effectiveness factors and benefits may be perceived to increase learner success. Course effective factors considered in this study include but are not limited to increased flexibility that allows adult learners to juggle personal, work-related, and educational objectives compared to a lecture course, enhanced critical thinking and problem solving skills, enhanced time management skills, enhanced computer skills, greater access to the instructor compared to an online course, that students manage and monitor their own course progress and become more responsible learners, the varied and interactive learning materials that accommodate various learning styles, greater course participation for timid students, access to pre-recorded lectures and course materials for review if needed or missed by the student, greater opportunities to present ideas within the privacy of their homes, optimized face-to-face class time with faculty and other students to focus on challenging course modules,



and greater student success as measured by decreased withdrawal rates (Gonzalez-Castillo, 2008).

**Course management system (CMS).** Course management systems are software programs developed to create an online classroom setting. It includes a repository for syllabi, schedule, and assignments as well as a means to submit assignments and post discussions. Blackboard™ and Canvas are widely used electronic course management systems (Collins, 2007).

**Face to face class.** In a face-to-face class, teachers and students meet in real-time in class at a prior given schedule. Students must be present in class during the scheduled class time to meet with the instructor and to interact with other classmates (Collins, 2007).

**Hybrid Course Effectiveness Questionnaire (HCEQ).** The HCEQ is an online survey designed by Dr. Gonzalez-Castillo (2008) to measure the attitudes of community college faculty members regarding the effectiveness of hybrid courses. With the permission of Dr. Gonzalez-Castillo, the HCEQ was modified for use with this study. Demographic variables were adjusted as necessary, the list of Likert-type items was expanded for the faculty survey tool, and it was also modified to be used as a secondary survey instrument to solicit students' data.

**Instructional technology.** Instructional technology is the process of using technology including computers, multimedia, and audiovisual aids as tools to increase learning (University of Texas, 2007).

**Multimodal Model.** A multimodal model is an instructional method wherein teachers and instructional designers use multiple approaches including traditional, face to

face methods and online technologies to meet the needs of a wide array of students' needs because they represent different personality types, learning styles, and generations (Picciano, 2009).

**Online presence.** Online presence is the sense that someone is in the same online learning interface and ready to communicate with other learners or an instructor, through e-mail, discussion forums, or real time (Collins, 2007).

### **Summary**

The study was designed to determine perceptions of faculty and students concerning the relevant factors that may contribute to an increase in course effectiveness and challenges that may contribute to a decrease in course effectiveness in the blended classroom and to determine if there was a significant difference between faculty and students' perceptions of these factors and challenges. A secondary purpose was to discover suggested best practices for the college, and to discover potential strategies that can be implemented to increase learner success.

## Chapter 2: Literature Review

### Overview

The primary purpose of this proposed quantitative method study was to identify key course effectiveness factors and challenges, and then identify best practices and a strategic approach in developing blended courses that may promote learner success in higher education, specifically at a large community college in the Southwestern United States. The purpose of this literature review was to explore existing information on blended learning models to gain further theoretical knowledge in this area. Existing studies found in the preliminary literature review emphasized blended learning in elementary and secondary education, or specifically at the university level, with few focusing on community college blended learning. The participating college and the college's district have completed limited formal studies on blended learning. Numerous studies do exist concerning both online and face-to-face teaching platforms. Some of the methodologies for these could be combined and applied to many blended learning classes

One strategic priority in the participating college's strategic plan for the years 2011 through 2014 was online learning. One of its goals was to increase participation in educational opportunities and to expand access to college programs and services (MCC, 2011). The focus on related objectives in the plan were providing programs for diverse student populations and responding to the need for high-demand courses and programs. One possible solution to these objectives may be to add strategically planned blended courses.

Faculty and administrators at the college for the proposed study expressed interest in blended learning. The market for online/blended delivery has growth potential.

Consumer preference and openness for blended and online delivery exceeds reported experience (Allen, Seaman, & Garrett, 2007). Other researchers, such as Shaw (2010) and Smith (2010) concurred with Allen et al. (2007) indicating the blended learning trend spread quickly with initial estimates predicting that up to 90% of courses in higher education could be considered blended (Young, 2002 as cited in Shaw, 2010, p. 3). Community colleges have demonstrated preferences for providing distinctive technology skills and patterns of use (Baker, 2007).

Economic changes, globalization, diversified demographics, and the tapering of available resources for nonprofit, public institutions contribute to the pressures the colleges are experiencing (Baker, 2007; Held, 2009). Online and blended learning opportunities may be an option to Baker's recommendation (2007). To meet the increased and changing needs as well as capacity issues, colleges need to investigate alternative, learner-centered instructional methods with the ability to provide adult learners and nontraditional students with options. Baker (2007) indicated these methods must include the ability to access learning options any place and anywhere, at the same time easing the need for traditional classroom space.

Students participating in both online and blended courses at the proposed participating college have increased each year since 2006 as indicated by the statistics at the college's Office of Research and Planning (MCC, 2010b, p. 2). The faculty profile of the participating college for the beginning of the 2013-2014 academic year (Fall 2013 semester) indicated a total of 343 full time faculty and 940 adjunct faculty. Student enrollment for the same semester, including blended, traditional, and online class

modalities, was 23,678, with over 1,700 attending at least one blended class (MCC Fast Facts, 2014, MCC Hybrid, 2014).

For the Fall 2010 semester, unduplicated headcount for the college was 26,408 with 2,232 or 8.5% of the students enrolled exclusively in Internet classes. The other students attended face-to-face or blended courses at multiple locations within the same college (MCC, 2010b). Although the college had been offering blended classes, this report did not delineate students attending blended courses. However, the same college's annual report for 2009-2010 (MCC, 2010a) indicated that online and blended enrollment was growing. The report indicated that headcount and annual numbers of online student enrollment increased from 10,727 students in 2003-2004, representing 6% of total enrollment, to 23,843 students in 2008-2009, 16% of total enrollment. Blended classes also demonstrated growth with over a 100% increase in students from 2008-2009 to 2009-2010. The same report indicated an expectation of a continuation of the trend for increased enrollment in this area (MCC, 2010a).

The number of blended instructors, some of whom also teach online, had also more than doubled from 24 in the Fall 2009 semester to 54 in the Spring 2010 semester (MCC, 2010a, p. 11). A check of the college's online class schedule for the Spring 2014 semester indicated 95 faculty were scheduled to teach blended classes. The percentage of students taking blended classes doubled in number of total classes in 2008-2009 to 2009-2010 academic years (MCC, 2010a), and increased to more than 4,500 students in the 2013-2014 academic year (MCC Hybrid, 2014). The number of faculty teaching blended classes at the same college increased from 24 in the Fall 2009 to 54 in the Spring

2010 semester (MCC, 2010a). A check of the college's online class schedule for the Spring 2014 semester indicated 95 faculty scheduled to teach blended classes.

With the number of blended classes offered rising at the college for the proposed study, the opportunity possibly existed to influence the purposeful and strategic planning of these classes to best meet learners' needs. One way this might be accomplished was through identifying both faculty and students' perceived course effectiveness factors and challenges and determining if there was a significant difference in their perceptions (Tung, 2007).

Although a new focus of study, a number of disciplines including curriculum development, instructional design, education, information technology, economics, microeconomics, statistics, and business have conducted experiential and performance-based scholarly research of blended courses (Campbell, 2010). Within the preliminary literature review, numerous resources were found on individual components of purpose, strategies, quality, and success, but no studies combined focus on these factors for a positive blended learning experience.

The research began by articulating the evolution and background of blended learning and identifying issues and characteristics including approaches, advantages, and disadvantages. The impact of instructional design (multimodal learning and pedagogy) and technology considerations including support in strategic planning and developing a positive computer culture was identified. The remaining focus of this literature review was an emphasis on faculty (including applicable quality standards and faculty training/mentoring), students' expectations and success, and course effectiveness, including factors and challenges. Finally, existing and possible best practices were

explored with an emphasis on planning and processes that should result in better quality (Covey, 2003). For this study, components of the learning environment included exploring purpose, technology, strategies, quality, and success to increase student learning and success in blended classroom environment.

### **Documentation**

The primary literature search was completed through a number of databases available through Northcentral University's online library including EBSCO, ERIC, ProQuest, and SAGE publications. The Roadrunner search tool was used as a starting point for many of the searches conducted. In addition, reports from academic organizations including the Sloan Consortium, the participating college, and the college's associated community college district, comprised of 10 community colleges, were requested and were reviewed.

### **Evolution and Background of Blended Learning**

Varying characterizations of blended learning exist. The evolution path from face-to-face classes to those fully online is not transparent. Blended learning is not necessarily a transition strategy for educational institutions but is a distinct option selected on its own merit (Allen & Seaman, 2008). Blended learning represents a compromise of face-to-face and online learning wherein the learner and instructor use the computer as a communication device with the ability to address issues of embodiment through face-to-face interaction that lessens the need for highly prescriptive materials (Jordan, et al., 2008). Picciano (2009) asserted that although there are a number of blended learning formats, a generally accepted taxonomy does not exist.

A basic prototypical course classification has differentiated among delivery methods for past surveys because individual instructors use diverse course delivery techniques. In this model, an online program is defined as one where 80% or more of the program content is delivered online. A blended class is one wherein online content delivery ranges between 30 and 79% (Allen & Seaman, 2008). Within the Business and Information Systems Department at the participating college, classes receive the online designation if 100% of the content is asynchronous. Most blended classes within the same department include an approximate reduction in *seat-time* of 50%, with the remaining content delivered online. As an example, if a face-to-face class normally would meet twice a week for one hour, 15 minutes, the blended format usually results in the face-to-face time decreasing to once per week for one hour, 15 minutes, with students responsible to complete the remaining work online.

Picciano's *Broad Conceptualization of Blended Learning* model, in the following table, visually presents technology/media and delivery method (2009, p. 11).

Table 1

*Picciano's Conceptualization of Blended Learning*

Technology/Media	Example	Delivery Method		
		FTF	Blended	Online
Minimum	E-mail, electronic-lecture notes	X	X	
Infused	Technology in classroom: interactive simulations, digitally controlled experiments	X	X	



Minimum	Simple technology: CMS, electronic bulletin/discussion board	X	X
Infused	Advanced technology: Interactive video, teleconferencing	X	X

Source: Broad Conceptualization of Blended Learning (Picciano, 2009, p. 11)

Picciano (2009) affirmed the blended learning definition adopted by Sloan-C (2005) workshop participants wherein pedagogically planned courses integrate online activities with those in a traditional face-to-face class and where online activity replaces a defined portion of face-to-face time. Picciano went on to caution, however, that the definition is a guideline not an absolute (2009).

Four predominant approaches to blended learning were suggested by Driscoll (cited by Jordan et. al, 2008): (a) self-regulated, (b) pedagogical, (c) mixed, and (d) learning outcome-based. Self-regulated learners interact with numerous technologies to reach specific learning outcomes, including simulations, virtual learning environments, and web-based audio/video clips. The pedagogical model enables the faculty member to select the specific pedagogical approach, only integrating the technology needed to reach learning outcomes. The mixed approach combines instructional technology with face-to-face learning to meet outcomes. The learning-outcome-based approach first determines method of delivery, with the methodology and technology added to match the delivery (Driscoll cited by Jordan, et al. 2008, Hirner, 2008).

In a Brigham Young University (BYU) study, Graham and Robinson (as cited by Picciano, 2009) identified blended courses as transformative, enhancing, or enabling blends. Because the three types were not officially recognized formally by BYU's faculty

or administration, but served only as differentiators for the study, the BYU example is a common one, wherein without a clear definition blended learning is seen as an ill-defined combination of online and face-to-face instruction (Picciano, 2009).

The potential to consistently engage a wider variety of learner styles, interests, and needs can be addressed through blended learning to enrich the learning experience and quality of learning being delivered (Jordan et al., 2008; Staley, 2007). Increased knowledge of construction through working with many technologies and materials can result. The environment can promote enhanced communication and collaboration development with peers and instructors (Jordan et al., 2008). More convenience, reduced in-class time, and online flexibility are available to learners, yet with the interaction, instructor accessibility, and individual attention many learners are accustomed to receiving in a face-to-face situation (Staley, 2007). A learner can meet with faculty in face-to-face classrooms at the beginning of a blended course to establish social identification for motivation. This meeting can help develop a sense of collaboration and community as well as help establish relational support and rapport (Colucci & Koppel, 2010).

Unfortunately, some faculty members and students may see blended learning just as a way to spend less time in the classroom, completing the other portion online (Bigatel, P., Ragan, L. Kennan, S., May, J., & Redmond, B., 2012; Gebara, 2010). However, from a faculty perspective blended courses, regardless of a modified length of meeting time, may involve more work as the professor has to prepare for two sessions of the same course at the same time, one online component and one face-to-face (Welker & Berardino, 2005). When compared to online students, blended learners may have limited

flexibility in schedules, they may have technology issues, and they may be more constrained in terms of time and place to work on assignments (Colucci & Koppel, 2010, Jones, Fox, Levin, 2011).

### **Issues and Characteristics**

Purposeful planning of blended learning classes to meet students' needs more effectively thereby promoting their success is possible. To increase the potential likelihood of success, faculty and course designers should use multiple approaches to design instruction to meet the diverse needs of learners. Strategic multimodal methodology includes recognizing differences in generations, personality types, and learning styles to challenge students yet to enable them to experience learning comfortably while meeting pedagogical objectives (Picciano, 2009).

There is data available on purposeful planning and varying strategic approaches primarily for online and face-to-face environments, but there is not enough information and research available on blended learning at this time. However, as one study confirmed, when faculty members use proper instructional design methodology to convert a course to the blended format both their redesigned course and their traditional courses improve (O'Laughlin, 2007).

One strategic approach identified is to build opportunities for student engagement into a course, whether through in-class or online discussions or maximizing encounters with students outside of class. Options include learner participation in review, critical-thinking, and problem-solving exercises (Weimer, 2009). Promoting and integrating cognitive active learning strategies include (a) activating prior knowledge, (b) chunking and grouping individual pieces of information into meaningful units, and (c)

practicing metacognitive awareness through reflections on their learning process (Swiderski, 2009). Whatever strategies educators incorporate, it is paramount to maintain effective pedagogical practices.

### **Instructional Design**

Blended learning is an increasingly important andragogical and pedagogical approach to address positively the higher education issues tied to teaching to meet accessibility for learners and academic program quality (Picciano, 2009). The andragogical model contends that adult learners benefit from (a) knowing why the topic is important and how it relates to them and their experiences, (b) understanding how to direct themselves through the information, (c) being ready and motivated to learn, and (d) overcoming behaviors, beliefs, and inhibitions about learning (Conner, as cited by Pew, 2007). Providing options and familiar communication models may help. While discussing the Net Generation, Tapscott (1997) emphasized a new model of content and delivery of learning with possibilities using media tools for students to discover and participate. Held (2009) reaffirmed the evolution of Web 2.0 and its technologies and changing trends, including the development and popularity of web culture communities including blogs, wikis, social-networking sites, and video sharing. Communication options, security, information sharing, and collaboration enhance creativity (Held, 2009).

With the surfeit of ubiquitous information bombarding learners through the influx of technologies, the need for organization and critical-thinking skills becomes vital (Dell, as cited by MLE, 2009; Picciano, 2009; Weimer 2009). Should not educators, then, address the need for critical thinking by using the same technologies?

One method available to help identify pedagogical needs within a course for today's technology is *Bloom's Revised Digital Taxonomy* (Churches, 2009). The following table illustrates the added digital technology verbs that enable educators to compare digital techniques to the more traditional standard taxonomy.

Table 2

*Bloom's Revised Digital Taxonomy Examples*

Objectives	Examples
Creating	<ul style="list-style-type: none"> <li>• Designing, programming, filming, animating, blogging, podcasting, remixing</li> </ul>
Evaluating	<ul style="list-style-type: none"> <li>• Hypothesizing, critiquing, blog commenting, posting, moderating, collaborating, Skyping, net meeting, video conferencing</li> </ul>
Analyzing	<ul style="list-style-type: none"> <li>• Comparing, structuring, integrating, mashing, reverse engineering, cracking</li> </ul>
Applying	<ul style="list-style-type: none"> <li>• Implementing, executing, loading, uploading, sharing, editing</li> </ul>
Understanding	<ul style="list-style-type: none"> <li>• Interpreting, paraphrasing, advanced searches, Boolean searches, blog journaling, twittering, annotating</li> </ul>
Remembering	<ul style="list-style-type: none"> <li>• Recognizing, retrieving, bullet pointing, highlighting, bookmarking, social networking, Googling</li> </ul>

Based on Mind Map of Blooms Revised Digital Taxonomy (Churches, 2009)

Michael Dell, Chief Executive Officer, Dell, Inc. (as cited by MLE, 2009) affirmed the learner's need for critical-thinking and problem-solving skills as future leaders. Although he believed that reading, math, and science were foundational to student achievement, Dell emphasized that leaders of tomorrow need another set of knowledge and skills to compete in the global economy. He identified the *21st century*

*skills* including global awareness, collaboration, and communication skills to analyze and solve problems. Dell added that critical-thinking and problem-solving skills will lead to innovative solutions for world issues and the opportunity to acquire and master the skills should be available for learners (Dell, as cited by MLE, 2009).

The Partnership for 21<sup>st</sup> Century (MLE, 2009) recommended a list of necessary student knowledge and skills to raise the bar for learners' critical-thinking and problem-solving skills focusing on learning and innovation. The objective was to prepare students for increasingly complex 21<sup>st</sup> century life and work environments. Also included in this skill category were creativity, innovation, communication, and collaboration.

Scholars Woo and Reeves (2007) concurred, emphasizing the importance of social constructivism as a foundation for the design of more effective learning environments. Social constructivists consider individual subjects and the social society as interconnected and assert that learners participating in the social practices of a learning environment determine what students know. These include collaborative projects, group assignments, and social practices through family life, church events, and local communities (Woo & Reeves, 2007). Further advocated were information, media, and technology skills for people to be effective and exhibit critical-thinking skills in the media-driven 21<sup>st</sup> century environment with its access to a profusion of emerging and rapidly changing technology tools (MLE, 2009). In addition, the ability to collaborate and make individual contributions on an unprecedented scale will be paramount (MLE, 2009).

Another model of critical-thinking embraced by educators and learners is the freedom-of-choice method, which can help learners gain confidence in decision-making

and enable them to demonstrate self-efficacy by following through on those decisions. Theorists believe the *constructivist-learning model* (CLM) to be a successful learning model (Tabar-Gaul, 2008). Following a student-centered model, CLM students are actively engaged in their learning goals, and they acquire knowledge through their active-learning and problem-solving skills; the teacher becomes the coach and mentor (Tabar-Gaul, 2008). The research suggests integrating emerging learner-centered technologies with a focus on increased critical-thinking skills, such as communication, analysis, collaboration, and decision-making as essential to expand learners' worldview and to prepare them to be tomorrow's leaders (Churches, 2009; Held, 2009; MLE, 2009).

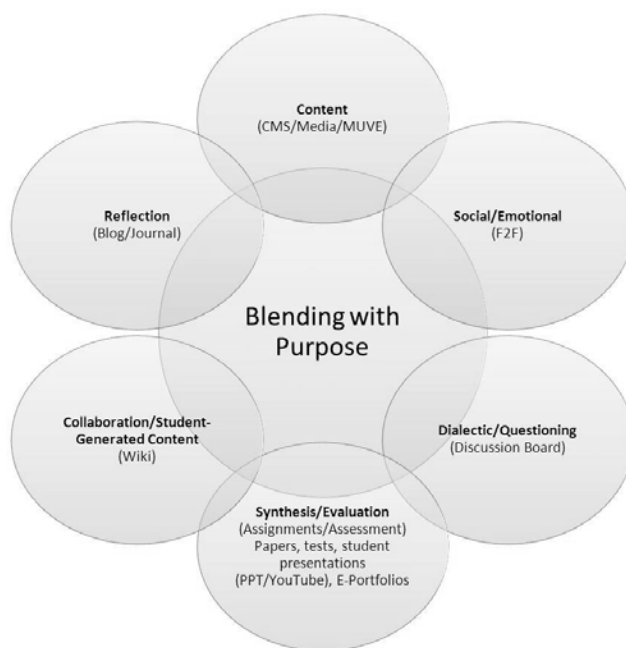
Including a focus on multimodalities is important when designing instruction, including various pedagogical techniques, deliveries, and media to address the diverse needs of learners. Differences to address include learning styles, age, pace of instruction, technological experience, and learning stimuli, and these may change because of the subject matter or classroom composition (Picciano, 2009).

Selecting and applying the appropriate pedagogical strategies to meet learners' needs may be overwhelming. Picciano (2009) addressed six objectives organized to meet multimodalities: (a) content and the corresponding delivery methods as the primary driver of instruction, (b) social and emotional support for learners by the mentored faculty, (c) dialectic and questioning activities to promote critical thinking and problem solving, (d) shared reflection of learning, (e) collaborative learning, and (f) last, and according to Picciano, the most important component to the model, synthesizing, evaluating, and assessing learning. The following figure illustrates approaches and

technologies best suited to each pedagogical objective based on Picciano's *Blending with Purpose: The Multimodal Model*.

## Blending with Purpose: The Multimodal Model

Pedagogical Objectives/Activities -> Approach/Technology



*Figure 1. Blending with Purpose: The Multimodal Model (Picciano, 2009, p. 15)*

McDermott (2010) affirmed that students are familiar with, communicate, and respond to multimodal environments in everyday life as they use the Internet and other technology tools. He inferred the students' familiarity with the multimodal products may not only be a motivating factor for learners because they are familiar with the tools, but also as they consider the relationships among the technology tools it may increase understanding of how the tools fit together to describe a related concept. However, when incorporating multimodal or any components in a class, instructors and designers need to



do it strategically, ensuring effective pedagogical theory is addressed (McDermott, 2010; O’Laughlin, 2007; Picciano, 2009).

To promote learner success in a blended course, as in other delivery formats, developers should incorporate sound instructional design fundamentals. One such design method focused on analysis, design, development, evaluation, and delivery component in a blended classroom (Passerini and Granger as cited in Jordan, et al. 2008). The following table illustrated these components:

Table 3

*Hybrid ID Model*

Method	Component
Analysis	<ul style="list-style-type: none"> <li>• Profile audience (age, learning gender, culture, experience)</li> <li>• Define needs and goals</li> </ul>
Design	<ul style="list-style-type: none"> <li>• Write learning outcomes</li> <li>• Content design</li> <li>• Select learning model</li> <li>• Select content</li> </ul>
Development	<ul style="list-style-type: none"> <li>• Interface design</li> <li>• HCI considerations</li> <li>• Navigation and design (linear, nonlinear, hierarchical, composite)</li> <li>• Production of lesson material</li> <li>• Instructional (control options, objects)</li> <li>• Learner (hypertext, hypermedia, virtual reality)</li> </ul>
Evaluation	<ul style="list-style-type: none"> <li>• Formative evaluation</li> <li>• Pre-testing</li> <li>• Conducted throughout development</li> </ul>
Delivery	<ul style="list-style-type: none"> <li>• Summative evaluation</li> <li>• Evaluate learning objectives</li> <li>• Technical considerations</li> <li>• Provide support for learners</li> <li>• Step-by-step development</li> <li>• Revisions at each step</li> </ul>

*Source: Based on Passerini and Granger (2000) in Jordan, et al. (2008)*

In his discussion of designing to educate the Net Generation, differentiation helps students understand ideas and apply what they have learned as skills through frameworks of meaning that enable them to retain, and transfer what they learn (Tapscott, 2009).

Incorporating instructional technology to help to clarify differentiation can be important.

### **Instructional Technology.**

With the influx of emerging technologies and learners' entrenchment in cyberspace, many teachers find themselves in the midst of a paradigm shift. Therefore, the need to embrace innovative technology and integrate it into the classroom is paramount. The National School Board Association, citing the Education Commission of the States (2009) concurred, indicating that it is necessary to understand technology's place in education to empower students and teachers to develop the necessary skills to meet high-tech society challenges. The Board emphasized that increasingly rapid changes in technology no longer enable school leaders to plan for the next decade. In a short time, entrepreneurs create and dissolve companies, products are available then discarded, and innovation becomes obsolete. School administrators and teachers must learn how to use and manage the overwhelming technological innovations (NSBA, 2009).

When instructors understand the variety of available technologies and instructional best practices, they can optimize the application of technology (Reif, 2009, University of Texas, 2007). Instructors should use technology to impart knowledge, promote learning and critical-thinking, and increase connectedness among students. According to Matzen & Edmunds (2007), there should be a shift toward student-centered instruction through the classroom technology. The concept applies as well to determining

the components needed to ensure technology integration meets its objective of providing a means for students to learn effectively.

The integration of the information age and resulting changes in society have necessitated a definite shift in most of the paradigms on which traditional learning exists. Educators must revisit their existing educational blueprint and become change agents and adaptive experts by applying new strategies and laying a foundation for lifelong learning (Cercone, 2008; Darling-Hammond & Baratz-Snowden, 2007). Students must also be able to accept change, adapt to it, and thrive from it.

For this paradigm shift to occur educators must develop standards differently and incorporate modern technology through strategic plans. The teacher must not only embrace this foundation of lifelong learning, but also strive to instill it within the students (Tsantis, 2008). Most educators would agree that adaptive expertise and learning would be a natural match with technology. Teachers should understand how to connect technology and pedagogy with the content of the curriculum (Harvey-Woodall, 2009). For an instructor, the research confirms it is important to stay current with technology, emerging digital literacy, and new educational methods, techniques, and strategies (Harvey-Woodall, 2009; Johnson, Smith, Willis, Levin, & Hayward, 2011; Tsantis, 2008).

When planning and implementing instructional technology, leaders must consider more than access to the hardware and their decisions on the types of software to include in the plan. Management must identify, communicate, and prepare for the new roles for teachers and administrators. They must also evaluate the effects, challenges, and outcomes of instructional use when integrating the technology into the curriculum

(Johnson, Smith, Willis, Levin, & Hayward, 2011; Picciano, 2006). Jamie McKenzie accurately indicated this same caution in the article, *Stuffing Technology into the Curriculum* (2004). He emphasized the need to find convincing evidence and its associated value for each technology used. In another of his publications, McKenzie provided a list of questions of decision makers and stakeholders to ask before implementing technology to ensure focus on learning objectives, not the tools. The criteria included asking if the integrated activity will be (a) efficient, (b) reliable (c) complete and thorough, (d) coherent, and (e) effective (2003).

An opportunity exists to transform learning through information technology by benefiting from the students' ability to learn more profoundly pedagogically. Learners retain information longer when they are actively engaged in a self-driven learning activity, not when they passively engage through only listening (Newman, Couturier, & Scurry 2004).

As indicated earlier, one model available to help identify pedagogical needs based on traditional standard taxonomy but through digital technological verbs and techniques within a course is *Bloom's Revised Digital Taxonomy* (Churches, 2009). Another option is to use technology standards to promote effective implementation.

The *Quality Matters (QM) Rubric for Online and Blended Courses* contained eight criteria groups for best practice, including one entitled Course Technology that focused on assessing instructional technology used within a course. One of the five standards in the course technology group requires that the tools and media support the learning objective and that the technology deliver the content of the course appropriately

(2011). The QM rubric enables faculty to review the course to ensure the technology incorporated is pedagogically sound.

The *National Educational Technology Standards for Teachers: Preparing Teachers to Use Technology* (Jones, R., Fox, C., Levin, D., 2008) outlined an example of a required set of educational technology standards for teachers in five areas. Similar lists of standards and competencies are available for many fields of study; however, identifying the guidelines is only a beginning. Many curricula for educating teachers are incorporating internships and student teaching within a classroom environment. This practice is a step toward the realistic experience needed to grow as an educator. For educators, a list of technologies in which to be proficient is only a start (Tsantis, 2008).

The impact of integrating technology in adult learning can meet the objectives of effective teaching. For each technology, Roblyer (2006) identified phases of integration that should be addressed. Roblyer emphasized the importance of (a) determining the relative advantage for the technology, (b) understanding the objectives and assessment plans, (c) designing the integration strategy, (d) preparing the learners and environment, and (e) incorporating ongoing evaluation techniques. For example, an educator should not incorporate technology just because it is available. Before the implementation, stakeholders should evaluate and select the best technology to meet the pedagogical objectives for the learner, ascertain how to integrate the technology into the classroom, identify any additional resources and training educators and learners will need to use it, and decide how the implementation should be assessed (Johnson, Smith, et.al., 2011; Roblyer, 2006). Picciano (2006) recommended three primary considerations when integrating technology into the curriculum: (a) ensure teachers and students have

developed a basic computer literacy, (b) involve the teaching staff with expertise and who ultimately may be responsible for implementing new applications in the planning, and (c) develop and establish a process and procedures with long-term priorities and plans.

One challenge to address is faculty concern that standardization of materials, collective adoption of course management systems, and formalized guidelines may threaten their academic freedom (Oravec, 2005). The academic freedom controversies occur in all aspects of university life, which should make them a priority of stakeholders – students, alums, administrators, public officials, and anyone concerned with higher education. Stakeholders should create a structure to maintain the integrity of the rights identified by Oravec (2005) and processes to explain these rights. One way to help alleviate the concern of academic freedom is to include educators in the planning process, along with following the principle McKenzie firmly believed in (cited by Tabar-Gaul 2008), to provide support and time for teachers to collaborate, learn, and experiment with innovative methods using technology.

One scholar, Spodark (2003), likened integration of classroom technology across a campus as a pyramid, one consisting of (a) vision, (b) leadership, (c) access to machinery, (d) incentives, and (e) faculty participation. Spodark further identified five obstacles that can hinder widespread technology integration; (a) clear vision, (b) leadership, (c) critical mass of technology resources, (d) incentive, and (e) faculty participation. A combined lack of the first four obstacles resulted in a lack of the fifth. Therefore, planning for technology integration and the needed resources becomes paramount for success.

When leaders plan for and implement instructional technology, they must consider more than access to the hardware and decisions on type of software to include. Leaders must identify, communicate, and prepare for the new roles for teachers and administrators as well as evaluate the effects and outcomes of instructional use when integrating the technology into the curriculum (Picciano, 2006). Institutions must prepare for online student support through a planning process that includes (a) examination of their organizational and pedagogical practices, (b) human resources requirements, and (c) a system for training and monitoring the online support staff (Smith, B., 2005). Collins (2007) concurred that it becomes progressively more important to align these issues with strategic planning, establishing policies, and quality service. Planning and preparation for online learning should incorporate three categories of instructional challenges: (a) integrating technology, (b) retaining well-trained and competent instructors, and (c) achieving organizational effectiveness (Waterhouse, 2005). The mentioned strategy applies to integrating technology into a traditional and blended classroom as well.

A primary component to incorporate technology in the classroom successfully is ensuring the necessary support system is in place. Many educators are hesitant about converting from traditional ways of teaching to integrating technology into the classroom. Teachers can more effectively integrate technology into the classroom if they have substantial support from school administrators. The instructional leader is the key facilitator in an attempt to infuse technology into the school's curriculum (Dawson & Rakes, 2003).

The delivery of student support services is one critical issue that has received limited attention in academia. Colleges need to be proactive and quick to respond in

designing student services that provide quality, academically sound experiences to students (Collins, 2007). Collins (2007) emphasized six major student support categories including (a) recruitment and enrollment services, (b) academic support services, (c) access to materials and instructional resources, (d) career development services, (e) financial aid, and (f) technology support. This research confirmed a connected relationship between the availability and accessibility to online student support services through the investigation of quality control, accreditation, student satisfaction, availability and reliability of services, organizational structure, faculty and student awareness, technology issues, and support from administration. Although the focus in Collins' study was support for online learners, the components should work well to promote traditional and blended learner success as well.

Administrators must be proactive in preparing faculty to work effectively with the technology in a virtual environment (Tabar-Gaul, 2008). In addition to allocating resources to build an infrastructure for instructional technologies, she emphasized the need to hire and train faculty to become effective online facilitators. This proactive preparation for technology integration also applies to educators in a blended and traditional classroom environment.

It is necessary to educate the entire learning community on the existence and availability of technology support services (Collins, 2007). In addition, it is important to involve faculty and students in identifying and establishing student services. In an interview with one educator, Hill (as cited by Shelton, 2009) affirmed that support specialists are critical factors in the success of education. Through them, the college is providing the up-to-date knowledge, best practices, and research, making them easily



accessible to assist reluctant instructors and to provide consistent instructional support. Hill (as cited by Shelton, 2009) maintained that faculty initially cautious leave with a positive outlook and less trepidation after working with faculty support specialists. Held (2009) also confirmed the importance of support, cautioning that when using technology, problems will occur and proper support will need to be available to resolve these issues.

Information Technology (IT) could raise performance and simultaneously cut costs while reshaping American education (Kolderie & McDonald, 2009). Centralization, accuracy, and security of student data are important. Dr. T. C. Smith (2005) included three institutional support benchmarks in his list of competencies for online learning. The first benchmark is an operational technology plan that includes electronic security measures including passwords, encryption, and backup systems to ensure validity of information. The second benchmark is to strive for a reliable technology system that is as dependable as possible. The third benchmark is a centralized system approach to support building and maintaining an educational infrastructure. Although developed for online learning, the importance of security, back-ups, and infrastructure are applicable for all areas of technology. In addition to general security precautions for any organization, there is a heightened importance of securing learner data with the need for educators to follow the Family Educational Rights and Privacy Act (FERPA, 2008) privacy guidelines.

Successful educational institutions must have a long-term perspective and a comprehensive plan with systematic objectives (Bischoff, 2007). Colleges need adequate financial resources to align the IT plan with organizational strategies, along with a commitment to avoid obsolescence and meet increasing capability demands (Bischoff, 2007).

Integrating and managing the increasingly complex and varied technological equipment, hardware, and software options in any environment while promoting a positive computer culture can be challenging (Picciano, 2007). In addition, the need to meet the specialized pedagogical requirements of teaching and learning with limited financial and support resources while maintaining quality instruction can be insurmountable. Shortages of funding face many public institutions throughout the country, including community colleges and four-year universities, resulting in the need to become pro-active and more cost-effective in their management of decreased financial and technology resources (Tabar-Gaul, 2008).

Although important, developing a positive computer culture with a focus on instructional technology and learning can be daunting. It begins with recognizing the need for a paradigm shift, management and planning, identifying support facilities and personnel, technology centralization, data communication, and security (Provenzo, Brett, & McCloskey, 2005).

Technologies do define and shape societies and cultures (Provenzo, Brett, & McCloskey, 2005). Within a historic perspective, from the introduction of stirrups for knights in the middle ages, through the industrial revolution, with the addition of the telegraph, and introduction of the computer, the impact of technology has constantly and consistently affected and reshaped social, economic, and educational systems (Provenzo, et al., 2005).

Globalization and diversity have altered and increased the scope of the online learner population. It has changed from a homogeneous profile of a mostly goal-oriented, intrinsically motivated, employed adult who is place-bound, to one that is a younger,

heterogeneous learner responsive to rapidly changing technological innovations (Dabbagh, 2007). Although Dabbagh's (2007) focus was on online learners, the statement applies as well to the learner in a traditional and blended classroom. Conrad (2008) and Held (2009) affirmed the evolution of technology-knowledgeable learners in their discussions of education and the Net-Generation. The blurring of boundaries between the informality of popular culture and the formalized learning environment characterizes today's technology-advanced, Web 2.0 world. Students are learning from blogs and wikis, not just textbooks, and they may likely use their *clicker* to indicate understanding instead of raising their hands (Conrad, 2008).

Diversity abounds among most communities. In addition, the youth of today are growing up with Internet and Web-based technologies, such as search engines, instant messaging, podcasting, blogs, wikis, social networking, online role-playing games, social bookmarking, vodcasting, and more; these prepared learners expect to be involved. The wave of technology use is not limited to young people; although in fewer numbers, older adults are also embracing the technology, thereby expanding their worldview (Becta, 2008; Dabbagh, 2007; Held, 2009). To facilitate learning, educators must expand their technology literacy and specifically their knowledge base of technology integration (Thomason, 2009).

Furthermore, educators must embrace the technology with other stakeholders including administrators, who determine budgets and resource allocation, and support personnel responsible for data management, security, academic sustainability, and faculty training. The primary focus of technology integration should be to advance student learning and achievement (Becta, 2008; Dabbagh, 2007; Held, 2009).

Meyer (2009) emphasized the importance of including all stakeholders, as he recommended Laird's educational *Integration Model* that promotes a combined infrastructure of equally shared resources for online and traditional learning. Meyer believed Laird's model was a more progressive and forward thinking model than others in the group were. The process focuses on bringing together all campus resources to unify traditional and online instruction, creating a synergistic effect to enable faculty and staff to share technology, infrastructure, and resources (Paolucci and Gambescia cited by Meyer, 2009). Meyer emphasized that this method maximally increases the efficiency of administrative and technological resources while decreasing costs and redundant systems, enabling faculty to provide quality instruction more productively in the process (2009). Viewing technology as an infrastructure, with information that runs on the infrastructure as the asset, can be effective (Bassoppo-Moyo, 2011; Tabar-Gaul, 2008). The most important informational assets in education always link to student learning.

If a positive computer culture is the key to the success of learning when integrating technology, what, then, is necessary to succeed? A number of tools are available for creating a positive computer culture (Picciano, 2006). Commitment, diligence, time, and tools are just some of the prerequisites for success. A few starting places for best practices include *The Sloan Consortium Effective Practices* (2008), *Quality Matters* (2011), and the *International Society for Technology in Education* (2008). With best practices as well as the positive, effective teaching tools and strategies, comes the need for diligence and extra time and effort by educators, especially in the technology integration environment. Increased learning by students is the primary benefit for promoting a positive computer culture and outweighs any perceived inconvenience or

resource cost (Picciano, 2006). Because the online classroom continues to utilize changing technology and its tools, the needs assessment is not a onetime undertaking, but a continual improvement process (Collins, 2007).

Continued professional development for current and future teachers in the effective use of technology in the classroom is also necessary. Technology is transforming constantly and rapidly; therefore, educators must evaluate technologies to determine the most important and viable for implementation. The first decision should be if the technology use is pedagogically correct. Instructors should seek training on the specific technology that meets the criteria. As indicated earlier, just because technology is available, it does not require implementation. Otherwise, educators would spend a limited time teaching content and would spend most of their time learning and teaching the technology itself (O’Laughlin, 2007; Thomason, 2009).

Is the current preparation for educators to use technology in teaching and learning environment sufficient? A definitive answer to this question is difficult. Although teaching programs require more training in technology, the time, financial, and human resources spent to prepare teachers varies within colleges and even within school districts (Picciano, 2006, Sloan-C, 2009). Ultimately, the decision to overcome the challenges and to strive toward an effective, positive computer culture while meeting or exceeding the technology integration best practices resides within the educator, remembering the final impact will be on the students (Picciano, 2006).

### **Faculty**

Eaton, president of the CHEA (Council for Higher Education Accreditation), warned the organization members, other accreditation agencies, presidents, chancellors,

and other college administrators to become informed on quality issues related to distance learning (as cited by Picciano, 2009). She explained the need to provide for organization and rationality to the surfeit of general information and quality assurance issues in online learning and warned that cost of misunderstanding is detrimental.

The impact of *Quality Matters: Inter-Institutional Quality Assurance in Online Learning* (2009) on online education has been substantial and can be applied easily to blended learning as well (Pollacia & McCallister, 2009; Restine, 2008). Myriad factors contribute to learner success. Designers use the faculty-centered Quality Matters (QM) peer-review process to certify the quality of online and blended courses. Known as a leader-in quality assurance for online education, QM has received national recognition for peer-based focus and continuous improvement in student learning and online education (QM, 2009).

QM's rubric for quality course design focuses on eight categories: (a) course overview and introduction, (b) learning objectives, (c) assessment and measurement, (d) instructional materials, (e) learner interaction and engagement, (f) course technology, (g) learner support, and (h) accessibility (Pollacia & McCallister, 2009; QM, 2011).

Although not a complete solution, QM provides a low-cost, flexible, quality assurance process that educational organizations can adapt to confirm their online and blended courses meet academic standards (Pollacia & McCallister, 2009). The college targeted to participate in the study has embraced QM's peer review process and has begun to use it through district-wide collaborations to peer review courses voluntarily submitted by online faculty to help ensure consistency in the quality of e-learning classes (MCC,

2010a). To promote the QM process further, the target college has also implemented training and mentoring programs for faculty interested in the QM peer review process.

Gardner (2006) emphasized in his discussion of a *Good Teacher in Every Classroom* that effective teaching requires three areas of teacher knowledge. The first area is to know how students learn and how to acquire and use language. The second requirement is to ensure instructors understand their subject matter and the objectives of the curriculum. The last criterion is for the teacher to know and understand teaching; they need to know (a) how to teach subject matter for diverse learners' understanding, (b) how to assess learning, and (c) how to effectively manage a classroom. These criteria for effective teaching lead to teacher competency and apply in all learning modalities: traditional face-to-face classroom, online, and blended classrooms.

The Education Commission of the States (2009), which addresses issues important to educators, asserted that many careers require computer literacy and application. Students must become comfortable with technology to gain access to the careers. The National Center for Education Statistics (NCES) reports that after 32 hours of technology training most teachers feel comfortable incorporating technology, but that only 57% receive more than eight hours of training (as cited by ECS, 2009, para. 4).

Few technology courses for educators provide practical methods for using technology to enhance curriculum; instead, the focus is more on the functional capabilities of technology. Compounding the issues, future teachers may not experience effective technology practices in the schools during their internships, which results in a lower likelihood that they will incorporate technology in their own classrooms (ECS, 2009).

Without proficiency in using instructional technologies, teachers may find the implementation process difficult requiring them to either spend more time with the course itself or spend more time working with the technology instead of teaching (Thomason, 2009). Technology should (a) enable instructors to undertake activities more efficiently to save time through facilitating the process, (b) allow faculty to spend more time engaging with students instead presenting information, and (c) support a shift in the instructors' roles, enabling them to provide more guidance and feedback and more time to interact with students instead of traditional lecturing (Thomason, 2009).

Institutions must prepare for online student support through a planning process that includes (a) examination of their organizational and pedagogical practices, (b) human resources requirements, and (c) a system for training and monitoring the online support staff (Smith, B., 2005). Collins (2007) concurred, stressing the importance of strategic planning and quality service, along with the establishment of policies to align with student support issues.

his strategy also applies to integrating technologThe first-line learner support in education is the instructor. Planning and preparation for online learning should incorporate three categories of instructional challenges: (a) integrating technology, (b) retaining well-trained and competent instructors, and (c) achieving organizational effectiveness (Waterhouse, 2005). Ty into a traditional and blended classroom.

Because of their diversity of life and educational experiences, learning preferences, and personalities, faculty bring uniqueness in their role as adult learners. These experiences influence their future teaching and their motivation to participate in professional development activities (Lawler, 2003, as cited by McQuiggan, 2007).



The *National Educational Technology Standards for Teachers: Preparing Teachers to Use Technology* (2008) outlined an example of a required set of educational technology standards to be met by teachers in five areas. Similar lists of standards and competencies are available for many fields of study; however, it is only a beginning. Many curricula for educating teachers are incorporating internships and student teaching within a classroom environment, providing a step toward the practical experience needed to grow as an educator (Waterhouse, 2005).

For instructors, learning the new technologies is only the beginning; the need to focus on student-centered learning and pedagogical guidelines to impart knowledge, promote learning and critical thinking, and increase connectedness among students is vital (Waterhouse, 2005). There should be a shift toward student-centered instruction when utilizing technology in the classroom (Matzen & Edmunds, 2007). This pedagogical focus applies as well to determining the components needed to ensure technology integration meets its objective of providing a means for students to learn effectively.

McQuiggan (2007) asserted that learning educational technologies for online teaching may spur teachers to evaluate their teaching practices through reflection. She affirmed Tallent-Runnels, et al., indicating that learning new technologies can be a potential opportunity to develop creative ideas about teaching and learning and to apply them to restructure traditional classroom roles and relations (as cited by McQuiggan, 2007).

What makes a teacher competent? It is important an instructor be prepared and competent. This preparation can occur in myriad ways. A person completes

four (or more) years of college, learns about his or her favorite subject area, reads about the newest classroom activities, techniques, and technologies, and obtains his or her first teaching assignment. Although an instructor may be ready to teach, the possibility exists that there is more to being a competent teacher than the academic instruction received, subject knowledge, and mere technique (Bruning, 2006; Gutek, 2004; McQuiggan, 2007).

An aptitude and art exist to impart knowledge using technical means, whatever the field. Bruning (2006) emphasized that research reveals that it is not the teaching methodology employed, but the teacher creating an environment of engagement that transforms into student learning. She reaffirmed Parker Palmer (1996) in *The Courage to Teach*, who stated that good teaching stems from the identity of the teacher not technique. In his book, Palmer went on to say that although the methods differ, effective teachers possess the ability to intertwine connections among themselves, the topics, and their learners so that students can learn to create a world for themselves (Palmer as cited by Bruning, 2006).

As an example of this connectedness, Freire (as cited by Gutek, 2004), another scholar in this area, believed when teachers and students engage in shared, ongoing communication that genuine learning occurs. Connectedness creates knowledge, not just transmits it, when students and teachers dialogue and reflect upon their experiences (as cited by Gutek, 2004).

Cahn's book, *Classic and Contemporary Readings in the Philosophy of Education*, affirmed Paul Hirst's suggestion that the teacher must answer first the question "What is teaching?" He emphasized that teaching does not exist without the

intention to bring about learning. Therefore, teaching cannot be characterized without learning (1997).

Darling-Hammond and Baratz-Snowden (2007) confirmed the connection between teaching and learning has not changed. Teachers need to become *adaptive experts*, able to use efficient routines and to apply new strategies in situations. Teacher education must provide a foundation of lifelong learning because it cannot provide everything a teacher will ever need to know for every situation. The teacher must not only embrace this foundation of lifelong learning but also strive to instill it within the students. Most educators would agree that adaptive expertise and learning would be a natural match with technology. Although at first glance the correlation seems a paradox, technology integration can also enhance connectedness (Harvey-Woodall, 2009; Tsantis 2008).

For all educators, being competent in the profession does go beyond the basics and ties into the identity of the teacher and the connectedness described earlier. For an instructor, the research confirms it is important to stay current with technology, new educational methods, techniques, and strategies. Experienced educators should find ways to pass this sense of connectedness and the tools to strengthen it through mentoring and training (Harvey-Woodall, 2009; Tsantis 2008).

Connectedness with students can be attained, whether through critical thinking, application based, individual and group assignments, or just conversation before, during, and after class (or through individual e-mails and discussion assignments for online students). The goal is to see beyond the surface, to the window of the soul for each student, to, in some small way, instill the love of learning, and help each to find where his

or her life is calling. Achieving the goal of connectedness helps a person to be a better teacher and mentor for the students, and most likely a more competent teacher (Bruning, 2006; Harvey-Woodall, 2009; Palmer, 1998; Tsantis 2008)

### **Students**

Students may see blended learning just as a way to spend less time in the classroom, completing the other portion online (Bigatel, P., Ragan, L. Kennan, S., May, J., & Redmond, B., 2012; Gebara, 2010). When compared to online students, blended learners may have limited flexibility in schedules, they may have technology issues, and they may be more constrained in terms of time and place to work on assignments (Colucci & Koppel, 2010).

Students can benefit from strategic multimodal methodology that includes recognizing differences in generations, personality types, and learning styles to challenge students yet to enable them to experience learning comfortably while meeting pedagogical objectives (Picciano, 2009).

Building opportunities for student engagement into a course, whether through in-class or online discussions or maximizing encounters with students outside of class can benefit students (Young, M., 2010). Options include learner participation in review, critical-thinking, and problem-solving exercises (Weimer, 2009). Promoting and integrating cognitive active learning strategies include (a) activating prior knowledge, (b) chunking and grouping individual pieces of information into meaningful units, and (c) practicing metacognitive awareness through reflections on their learning process (Swiderski, 2009). While discussing the Net Generation, Tapscott (1997) emphasized a new model of content and delivery of learning with possibilities using media tools for

students to discover and participate. Held (2009) reaffirmed the evolution of Web 2.0 and its technologies and changing trends, including the development and popularity of web culture communities including blogs, wikis, social-networking sites, and video sharing. Communication options, security, information sharing, and collaboration enhance creativity (Held, 2009).

Following a student-centered model, CLM students are actively engaged in their learning goals, and they acquire knowledge through their active-learning and problem-solving skills (Tabar-Gaul, 2008). Integrating emerging learner-centered technologies with a focus on increased critical-thinking skills, such as communication, analysis, collaboration, and decision-making as essential to expand learners' worldview and to prepare them to be

### **Course Effectiveness**

Course effectiveness is not dependent on delivery modality but based upon methodology, content, organization and presentation of the teaching and learning process (Kuong, 2009).

**Factors.** When present, course effectiveness factors and benefits may be perceived to increase learner success. Course effective factors considered in this study include but are not limited to increased flexibility that allows adult learners to juggle personal, work-related, and educational objectives compared to a lecture course, enhanced critical thinking and problem solving skills, enhanced time management skills, enhanced computer skills, greater access to the instructor compared to an online course, that students manage and monitor their own course progress and become more responsible learners, the varied and interactive learning materials that accommodate

various learning styles, greater course participation for timid students, access to pre-recorded lectures and course materials for review if needed or missed by the student, greater opportunities to present ideas within the privacy of their homes, optimized face-to-face class time with faculty and other students to focus on challenging course modules, and greater student success as measured by decreased withdrawal rates (Gonzalez-Castillo, 2008).

**Challenges.** Challenges to learning and course effectiveness are inevitable for both faculty and students. Some challenges to be explored include reduced access to the instructor compared to a face-to-face course, increased need for student technology skills, a greater disconnect with on-campus services and activities, and ineffective communication prior to enrollment concerning definitions and expectations of hybrid modality (Greenberg, 2010).

**Existing best practices.** Merging purposeful blended-learning strategies and quality programs can result in suggested best practices. Restine (2008) listed seven principles characteristic of good practices developed by Chickering and Ehrmann in 1996. She suggested ways to implement the seven principles: (a) encouraging student-faculty contact, (b) developing reciprocity and cooperating among students, (c) encouraging active learning, (d) providing prompt feedback, (e) emphasizing time on task, (f) communicating high expectations, and (g) respecting diverse talents and learning styles.

When instructors have a basic understanding of technologies and corresponding instructional best practices, there is a heightened application of technology to promote learning (University of Texas, 2007). The availability of suggested educational processes,

techniques, and best practices abound. Once an educator becomes proficient with a given technology, the next step is to be creative and ensure a valid pedagogical reason exists to incorporate the knowledge (Picciano, 2006).

Two pedagogical models to consider when designing courses with technology integration decisions include *exploratory* and *dialogical*. The exploratory model focuses on inquiry-based learning and the theoretical construct of discovery. Provided an authentic problem in a specific area, learners (a) generate a hypothesis, (b) gather information, and (c) provide recommendations, action plans, and interpretations. Examples include WebQuests, problem-based learning, and simulations. Dialogical models focus on social interaction through dialogue and collaboration. Examples include learning communities, communities of practice, and knowledge-building communities (Dabbagh, 2007).

Reeves, Herrington, and Oliver (2002), identify 10 characteristics of authentic learning, based on the exploratory model. Of those listed, real-world relevance is one critical characteristic of authentic learning in an e-learning environment. Real-world relevance usually ties closely to allowing competing solutions and diversity of outcome, another critical characteristic for adult learners, whether online or in a traditional face-to-face classroom (Woo & Reeves, 2007).

An activity with real-world relevance also automatically lends itself to authentic assessment (Mueller, 2006). At first glance, it appears the basic definition of authentic (genuine, real, true, reliable) would seem to imply that all assessments should be authentic or why bother to assess (evaluate) at all? However, authentic assessment has a

more specific meaning in the educational arena. As an example, Jon Mueller (2006), Professor of Psychology at North Central College, identified authentic assessment as one wherein students perform real-world tasks that demonstrate significant application of essential skills and knowledge. According to Mueller (2006), authentic assessment differs from traditional assessment, which emphasizes commonly used forced-choice measures including multiple-choice, matching, fill-in-the-blank, and true-false tests. An example of a real-world task that falls into the category of authentic assessment is e-portfolios.

As indicated earlier, the *Quality Matters Rubric for Online and Hybrid Courses* contained eight criteria groups for best practice (2011). The focus of the model is to deliver the content of the course to best support learning objectives (2008). This rubric enables faculty to review the course to ensure it is pedagogically sound.

Recommended techniques to provide a more engaging and relevant learning experience for online learners include: (a) provide clear instructions to students on how to participate in online course learning activities; (b) provide clear, consistent communication about due dates for learning activities; (c) organize efficient online course contents and learning activities in combination with a user-friendly interface; (d) do not emphasize social presence because online students do not see the importance of this component to their effective learning; (e) seek motivation and support from colleagues to prevent burn-out and the feeling of isolation (Tabar-Gaul, 2008).

Numerous best practices models exist and most are readily available through searching the Web. The focus of the models vary, some are specific and others generalized for online, blended, or face-to-face modalities, or cover all modalities



learning styles, and even virtual worlds (FAU, 2009; MLE, 2009; NETS, 2008; Sloan-C, 2008; Smith, B., 2005; VWBPE, 2007).

With best practices and incorporating effective teaching tools and strategies comes the need for diligence and extra time and effort by educators, especially in the technology integration environment. The crucial benefits of preparing educators for their changing roles outweigh any perceived resource cost in increased learning by the students and validation of why many have selected education as their career choice. With the influx of emerging technologies, the preparation and needs assessment is an ongoing, continual improvement process (Collins, 2007). Continued professional development for current and future teachers in the effective use of technology in the classroom is essential. Technology is in constant metamorphosis; therefore, educators must evaluate those technologies are the most important and viable for implementation. If the technology use is pedagogically correct, instructors should seek training on the specific technology. As indicated earlier, just because technology is available, does not mean implementing it is necessary. Educators need to focus on the learner-centered and value-added technologies that help expand learners' worldviews, and prepare students for future leadership roles (Dabbaugh, 2007; Waterhouse, 2006). Ultimately, the decision to overcome the challenges and to strive toward connecting the classroom to cyberspace while meeting or exceeding the technology integration best practices resides within the educator; however, the final impact will be on the learners.

### **Summary**

The focus on blended learning is increasing and the research in this area continues to grow. The goal of this research study, then, was to gain further theoretical knowledge

in this area, specifically in the higher education arena with a focus on comparing faculty and student perceptions of factors that may contribute to course effectiveness and challenges that may contribute to a decrease in course effectiveness. A secondary goal was to use the gathered data to identify possible best practices and ways to purposefully and strategically address the challenges of a blended modality as perceived by faculty and students to promote quality instruction and learner success. Knowledge gained through this study could enable institutions of higher learning to purposely and strategically incorporate teaching and learning success factors in the blended environment as a key to quality instruction and learner success.

## Chapter 3: Research Method

### Research Method and Design

The study used a quantitative methodology approach to explore and evaluate both the perspective and attitudes of the faculty teaching in the blended environment at the participating college and their students' awareness, attitudes, and perspective of course effective factors. The study was non-experimental, descriptive, with a focus on a naturalistic approach that assumed that the perspectives of the participants involved construct social reality. The focus of the study was on the process, understanding that change is ongoing (Creswell, 2004; Yin, 2004). The conceptual and theoretical framework of the study was derived from gaps in literature and from both the students' and faculty's perspective of effective blended learning factors and strategies leading to quality, successfully blended learning in a higher education environment.

The focus of applied research was on addressing real-life issues with (a) a purpose to create a better solution based on the knowledge gained through the study, (b) a context wherein the investigation and process begin to solve a problem utilizing quantitative and open-ended questions, (c) an emphasis on external validation associated with solving issues, and (d) analysis of a problem from multiple perspectives (Gaber, 2010). The following table illustrates Gaber's (2010) guidelines as applied to this proposed study.

Table 4

*Gaber's Applied Research Illustration for the Study*

Guidelines	Components
Purpose	Identify key course effectiveness factors, best practices, and a strategic approach in developing blended courses that promote quality higher education instruction and learner success as perceived by both the students and the faculty
Context	Use quantitative and open-ended question formats through web questionnaires to obtain data from blended learning faculty and students at the participating educational institution
Validity	Utilize findings from literature review and survey instruments to develop ways to address the blended learning issues (emphasis on external validity)
Design	Analyze the problem from multiple perspectives including existing research and the perceptions of faculty and students in a blended learning environment

Gaber, J. (2010). Applied research.

For this study, the goal was to determine perceived factors that may increase course effectiveness and perceived challenges that may decrease course effectiveness and that may lead to identifying best practices for blended learning for the college studied. These best practices included (a) the purpose of blended learning, (b) strategies used or planned, (c) quality guidelines, and (e) identifying and meeting course effectiveness factors.

As the data collected and analyzed in this study included both the student and faculty perspectives, students may also benefit from the study as the gathered information

may influence faculty and administration to meet the student needs more effectively, thereby promoting learner success (Baker, 2007).

The objectives for this exploratory and evaluative study included: (a) reviewing and exploring existing blended learning models through a literature review to gain further theoretical knowledge in this area; (b) adding to the existing literature collection and scholarly research in the area of blended learning and its effect on teaching and learning; (c) conducting surveys of faculty and students in blended classes at a two-year community college; (d) compiling, analyzing, and evaluating data from the study using a quantitative research method; (e) identifying and comparing the course effectiveness factors from the perspectives of faculty and students in blended classes; (f) compiling a list of best practices for strategic implementation for blended learning from the summarized findings; (g) identifying and reporting to faculty ways to incorporate the identified success factors purposefully and strategically to enhance student learning; and (h) identifying any gaps between the students' perspectives, faculty assumptions, and current literature about the purpose, strategies, and characteristics of quality instruction leading to blended learner success.

### **Population**

Gaining entry to the culture in this type of setting can be difficult. However, in this case, as a full-time, residential faculty member in the Business and Information Systems Department of a large, diverse community college in the Southwestern United States, access to the participants in this study was available. The stakeholders interested in or affected by the results of the study included: (a) current and future blended learning

students, (b) faculty teaching blended classes at the proposed site, and (c) other faculty, colleges, and universities.

The researcher used theoretical frameworks as a guide to structure the study, an exploratory, non-experimental, study of effective blended learning characteristics and strategies with an emphasis on discovery, not statistical inference. The category was survey research because quantitative and open-ended questions result in the most information gathered from participants. Although the focus was on one large, diverse, community college in the Southwest, the findings should assist with solving blended learning issues in other institutions of higher learning.

For this purposeful sample study, the participants were limited to faculty members who taught blended classes and their adult students at the specific community college. Both residential (full-time) and adjunct faculty who taught blended classes and students who took blended classes at the target college during the Spring 2014 and Fall 2014 classes were invited to participate in the study.

The overall faculty profile of the participating college for the Fall 2013 semester indicated a total of 343 full time faculty and 940 adjunct faculty, 88 whom taught at least one blended classes during that study (MCC Hybrid, 2014).semester. Although 294 blended classes were taught during the 2013-2014 academic year (MCC Hybrid, 2014), the projected population size included approximately 270 courses with three credits or more (to maintain consistency of the findings), with approximately 120 unduplicated faculty teaching blended classes during this time period. The number of faculty who actually taught at least one blended class with three or more credits during the Spring 2014 and Fall 2014 semesters was 143, including the researcher and one MCCD IRB

member who were unable to participate (MCC Hybrid Classes, 2014). The data provided did not indicate whether faculty were full-time or adjunct.

Student enrollment for the Fall 2013 semester, including blended, traditional, and online class modalities, was 23,678, with over 1,700 attending at least one blended class (MCC Fast Facts, 2014, MCC Hybrid, 2014). Although the anticipated average class size was 25, students may have taken more than one blended class during the time period being studied so the number of possible unduplicated students able to join the study was not able to be determined before receiving the actual student data from MCC's Office of Institutional Effectiveness. The *MCC Hybrid Class Overview, AY2011-2014* data (2014) indicated a total of 4,579 unduplicated students taking blended classes for the combined Fall 2013 and Spring 2014 semesters, for an average of 15.57 students per class. This number included all sections, even those with fewer than three credits. Using the 15.57 average unduplicated students times the estimated 270 classes of three or more credits, the anticipated unduplicated student population taking blended classes was estimated to be 4,200. The number of students who actually took at least one blended class with three or more credits during the Spring 2014 and Fall 2014 semesters was 4,339 (MCC Hybrid Classes, 2014).

Due to the focus of the study, the target population for this survey was only those faculty who taught blended classes and students who took blended classes during the Spring 2014 and Fall 2014 semesters. Invitations to participate in the study were sent to each of 141 identified unduplicated faculty who taught blended classes over three credits and to each of the 4,339 identified unduplicated students who took blended classes during the Spring 2014 or Fall 2014 semesters.

## Sample

For this purposeful sample study, the participants were limited to faculty members who taught blended classes and their adult students at the specific community college. Faculty members from the college who taught blended classes and the students enrolled in those specific classes were invited to participate in this study. The sampling was purposive to help build the theoretical framework (Young, 2002). The theoretical construct for the proposed study was that students will benefit from faculty incorporating identified course effectiveness characteristics in the blended learning environment, by strategic planning.

Both residential (full-time) and adjunct faculty who taught blended classes and students who took blended classes at the target college during the Spring 2014 and Fall 2014 classes were invited to join the study. Although more blended classes were taught during this time period (MCC, 2014), the population size included 313 courses with three credits or more (to maintain consistency), with 143 unduplicated faculty teaching blended classes. Although the class size ranged from 8 to 38 and the combined average number of students per class was 18, some students took more than one blended class during the time period being studied so the number of unduplicated students was 4,339 (2014, MCC Hybrid). The *MCC Hybrid Class Overview, AY2011-2014* data (2014) indicated a total of 4,579 unduplicated students taking blended classes for the combined Fall 2013 and Spring 2014 semesters, for an average of 15.57 students per class. This number included all sections, even those with fewer than three credits. Using the 15.57 average unduplicated students times the estimated 270 classes of three or more credits, the anticipated unduplicated student population taking blended classes had been estimated to



be 4,200. The G-Power analysis tool was used for determining minimum samples for the results to be significant a-priori t-tests. Using an effect size of 0.524, with an error probability of 0.05 and a power of 0.7746, the recommended sample size for faculty teaching blended classes was 32 and the recommended sample size for students taking blended classes was 176 (De Winter, 2013).

The study addressed ethical considerations for research involving humans including using the appropriate consent forms and receiving approval from both the Institutional Review Boards of Northcentral University and the participating college. The survey introduction informed faculty and students that they could leave the study at any time and asked that students under the age of 18 opt out of the study.

### **Materials/Instruments**

A Web questionnaire was distributed to the blended learning faculty within the college at the site of the study. A second, similar but more succinct, Web questionnaire was distributed to the students of the same blended learning faculty. The faculty survey was anticipated to take 15 to 20 minutes to complete; the student survey was anticipated to take ten minutes to complete. The modified HCEQ faculty questionnaire included nine demographic questions, 35 Likert-type items utilizing a four-point Likert-scale; and ten open-ended questions to collect descriptive answers to provide supplemental data. The student questionnaire included nine demographic questions, 19 Likert-type items utilizing a four-point Likert-scale; and five open-ended questions to collect descriptive answers to provide supplemental data. Based on a recommendation by Alreck and Settle (2004), the organization of the questionnaire was by topic to align with the research questions. Dr. Diana Gonzalez-Castillo provided written permission to use and modify her 2008 *Hybrid*

*Course Effectiveness Questionnaire* (see Appendices A and B). For the study, the investigator modified the previous instrument to create the two research instruments, *Hybrid Course Effectiveness Questionnaire: Faculty Perspective* (see Appendix E) and *Hybrid Course Effectiveness Questionnaire: Student Perspective* (see Appendix F).

Based on the recommendation of the participating college's E-Learning Director, the study used the Google Forms web survey instrument to gather data without additional fees (Held, 2009; Tabar-Gaul, 2008). The study used a Web questionnaire format, as it was easy to distribute, was interactive, with higher response rates.

Upon Institutional Research Board approval, two lists of email addresses were requested through the participating college's Office of Institutional Effectiveness, one each for faculty and students who participated in blended classes during the Spring 2014 and Fall 2014 semesters. Potential participants were sent an email and a follow-up reminder email to their Maricopa Community College District emails using the researcher's Maricopa Community College District's email address. In addition, faculty teaching blended classes during the survey time period were asked to provide a link within their online course component to assist with the distribution of the survey, with the goal to increase response rates.

Four research questions were addressed through this study.

**Q1** asked, What are attitudes of faculty and students towards factors that may increase course effectiveness of blended classes?

**Q2** asked, Is there a difference in the attitudes of faculty and students regarding factors that may increase course effectiveness for students of blended classes? Data collection and analysis addressed **H1<sub>0</sub>**. There was no significant difference between

faculty and students' attitudes of the factors that may increase course effectiveness for students of blended learning classes and **H1a**. There was a significant difference between faculty and students' attitudes of the factors that may increase course effectiveness for students of blended learning courses.

**Q3** asked, What are attitudes of faculty and students towards challenges that may decrease course effectiveness in a blended classroom environment?

**Q4** asked, Is there a difference in attitudes of faculty and students regarding challenges that may decrease course effectiveness for students of blended classes? Data collection and analysis addressed **H2o**. There was no significant difference between faculty and students' attitudes of the challenges that may decrease course effectiveness for students of blended learning classes and **H2a**. There was a significant difference between faculty and students' attitudes of the challenges that may decrease course effectiveness for students of blended learning classes.

The study used an exploratory and evaluative literature review to attempt to provide general answers in current literature. Data collection procedures were derived from quantitative and open-ended questions in two modified HCEQ (Gonzalez-Castillo, 2008) Web questionnaires. The responses given by faculty and students through the non-experimental survey instruments were analyzed and compared to attempt to answer the questions.

Quantitative questions can be a good fit for educational research (Creswell, 2004). This educational study covered two semesters (Spring 2014 and Fall 2014), which overlapped academic years. Using open-ended questions, surveys gathered information from a specific group of people with the objective to investigate practices and develop a

better process or solve a particular problem. Citing Farber, Held (2009) reaffirmed that researchers interact with the participants to gain a comprehensive, complete perspective of collections of people, programs, or environments studied. Those conducting qualitative research and using open-ended questions in quantitative studies should understand individual values are a part of the experience with potential biases affecting reporting.

This study used a naturalist inquiry research methodology for the open-ended questions; the focus on a discovery approach enabled a researcher to study a phenomenon with minimal manipulation of the phenomenon itself (Patton, 2002). Using both quantitative and open-ended question formats, the applied research study offered flexibility to obtain in-depth data that examined the perceptions and attitudes of faculty and learners concerning blended learning course effectiveness factors and possible best practices and implementation strategies (Gaber, 2010; Patton, 2002).

In addition to the primary research questions, the surveys also included questions to gather data from faculty concerning (a) course effectiveness factors for faculty; (b) challenges for faculty; and (c) possible implementation strategies to address student and faculty challenges and concerns with the purpose to increase course effectiveness and learner success.

Data was collected from blended faculty and students who participated in the Spring 2014 and Fall 2014 semesters, then the findings were recorded.

For faculty, the results were delineated by: (a) gender, (b) ethnicity, (c) age group, (d) years of teaching experience, (e) teaching area, (f) faculty status, (g) total number of blended classes taught, (h) percentage of blended class taught per semester, and (i) training concerning developing and/or teaching blended classes. . For

students, the results were delineated by: (a) gender, (b) ethnicity, (c) age group, (d) college education, (e) program area, (f) enrollment status, (g) number of blended classes taken, (h) percentage of blended classes taken per semester, and (i) training concerning taking hybrid or online classes

Quantitative data collected for each of the four research questions was evaluated using descriptive and inferential statistics and was presented using the Likert-type level of measurement. The Likert-type level of measurement allowed for higher order statistical analyses. Thirty-five Likert-type items in the modified HCEQ for faculty utilized a four-point Likert-scale with responses ranging from 1 – 4. A rating of 4 indicated *strongly agree*, a rating of 3 signified *agree*, a rating of 2 indicated *disagree*, and a rating of 1 indicated *strongly disagree*. In addition to this, nine questions collected demographic data and additional ten open-ended questions collected descriptive answers to provide supplemental data. Nineteen Likert-type items in the modified HCEQ for students utilized a four-point Likert-scale with responses ranging from 1 – 4. A rating of 4 indicated *strongly agree*, a rating of 3 signified *agree*, a rating of 2 indicated *disagree*, and a rating of 1 indicated *strongly disagree*. In addition to this, nine questions collected demographic data and additional five open-ended questions collected descriptive answers to provide supplemental data.

The *t* test independent two-sample assuming unequal variances was used to acquire inferential statistical data. The *t* test used distribution of sample means to determine if significant differences existed between mean scores (De Winter, 2013).

Quantitative data analysis included obtaining numerical ratings obtained from Likert-type scales used in sections B, C, D, E and F for faculty and sections B, C, and D

for students. All quantitative information was exported into an Excel worksheet from the survey tool. The data was reviewed to ascertain if it conformed to desired standards for statistical analysis. Excel was used to enter and analyze data.

Descriptive statistics were based upon the participants' self-reported data from each survey. Statistical analysis was used to test the research questions.

Additional data was collected from faculty and student responses to open-ended questions. The data was analyzed for trends and patterns as they applied to faculty teaching and students taking hybrid classes at the target community college.

The summary results were shared with faculty participants at the end of the study. Organizational strategies and implementation plans were shared with the applicable department chair, dean, or college department.

Two modified versions of Dr. Gonzales-Castillo's web survey Hybrid Course Effectiveness Questionnaire (2008) were administered. Faculty and students were identified separately and sent separate surveys, one for faculty and one for students. For the purpose of this study there were two nominal role groupings; faculty and students, serving as the independent variable: role (faculty, student). The faculty's responses were correlated with 35 possible Likert-type items. The students' responses were correlated with 19 Likert-type items. First the operational definitions were presented for the independent variables followed by the possible covariables.

The survey for the faculty role's demographic profile included questions whereby participants identified themselves according to nine areas: gender, ethnicity, age group, years of teaching experience, teaching area, faculty status, and total number of blended

classes taught, percentage of blended class taught per semester, and training concerning developing and/or teaching blended classes.

The survey for the student role's demographic profile included questions whereby participants identified themselves according to nine areas: gender, ethnicity, age group, college education, program area, enrollment status, and total number of blended classes taken, percentage of blended classes taken per semester, and training concerning taking hybrid or online classes.

**Operational Definitions of Dependent Variables.** Course effectiveness factors and challenges were considered dependent variables in this study and included, but were not limited to: increased flexibility that allows adult learners to juggle personal, work-related, and educational objectives compared to a lecture course; enhanced critical thinking and problem solving skills; enhanced time management skills; enhanced computer skills; greater access to the instructor compared to an online course; that students manage and monitor their own course progress and become more responsible learners; the varied and interactive learning materials that accommodate various learning styles; greater course participation for timid students; access to pre-recorded lectures and course materials for review if needed or missed by the student; greater opportunities to present ideas within the privacy of their homes; optimized face-to-face class time with faculty and other students to focus on challenging course modules; and greater student success as measured by decreased withdrawal rates (Gonzalez-Castillo, 2008).

*Faculty.* Thirty-five Likert-type items in the modified HCEQ for faculty utilized a four-point Likert-scale with responses ranging from 1 – 4. A rating of 4 indicated

*strongly agree*, a rating of 3 signified *agree*, a rating of 2 indicated *disagree*, and a rating of 1 indicated *strongly disagree*.

Nineteen Likert-type items in the modified HCEQ for students utilized a four-point Likert-scale with responses ranging from 1 – 4. A rating of 4 indicated *strongly agree*, a rating of 3 signified *agree*, a rating of 2 indicated *disagree*, and a rating of 1 indicated *strongly disagree*.

The faculty participant data was correlated with 35 Likert-type items included in four sections, B, C, D, E, and F. Each section represented a dependent variable designed to answer two of the research questions and provide additional data for supplementary analysis. Section B1 consisted of 12 scaled items which addressed research question one by identifying the attitudes of faculty towards factors that may increase course effectiveness for students of blended classes. Section B2 consisted of four scaled items that addressed research question two by identifying the attitudes of faculty towards challenges that may decrease course effectiveness for students of blended classes. Section C1 consisted of five scaled items that provided information to identify the attitudes of faculty towards factors that may increase course effectiveness for faculty. Section C2 consisted of five scaled items that provided information to identify the attitudes of faculty towards challenges that may decrease course effectiveness for faculty. Section D consisted of eight scaled items which provided information about how teaching hybrid courses had affected faculty teaching practices. A final section (E) included open-ended questions to provide additional data concerning the previous questions and possible strategies for implementation of best practices in a blended classroom.



*Students.* The student variable data was correlated with 19 Likert-type items included in three sections, B, C, and D. Each section represented a dependent variable designed to answer two of the research questions and provide additional data for supplementary analysis. Section B1 consisted of 12 scaled items which addressed research question three by identifying the attitudes of students towards factors that may increase course effectiveness for students of blended classes. Section B2 consisted of four scaled items that addressed research question four by identifying the attitudes of students towards challenges that may decrease course effectiveness for students of blended classes. Section C consisted of three scaled items that provided information to identify the students' perceived changes in learning practice because of hybrid classes. Section D included open-ended questions to provide additional data concerning the previous questions.

**Operational Definitions of Independent Variable.** The independent variable was the role of the participant; faculty or student, and was determined when the participants were identified. Faculty received a slightly different version of the HCEQ instrument with appropriate respective demographic questions versus the student version.

**Operational Definitions of Possible Co-variants.**

**Gender (Faculty).** Gender was identified on a nominal scale by faculty and students, "What is your gender?" (1 = Female, 2 = Male).

**Ethnicity (Faculty).** Ethnicity was identified on a nominal scale by faculty and students, "What is your ethnicity? (1 = African American, 2 = Asian, 3 = Caucasian, 4 = Hispanic, 5 = Other).

**Age range (Faculty).** Age range was identified on an ordinal scale by asking faculty and students, “What is your age group?” (1 = Under 25, 2 = 26-35, 3 = 36-45, 4 = 46-55, 5 = 56-65, 6 = Over 65).

**Teaching Experience (Faculty).** Teaching experience was identified on an ordinal scale by asking faculty, “What is your teaching experience (including this semester)?” (1 = 5 years or less, 2 = 6-10 years, 3 = 11-15 years, 4 = 16-20 years, 5 = 21-30 years, 6 = More than 30 years).

**Teaching Area (Faculty).** Teaching area was identified on a nominal scale by asking faculty, “What is your teaching area?” (1 = Academic, 2 = Occupational, 3 = Other).

**Faculty Status (Faculty).** Faculty status was identified on a nominal scale by asking faculty, “What is your faculty status?” (1 = Full-time, 2 = Adjunct).

**Number of Hybrid/Blended Classes (Faculty).** Number of Hybrid classes was identified on an ordinal scale by asking faculty, “How many hybrid/blended classes have you taught (including this semester)?” (1 = 1-5, 2 = 6-10, 3 = 11-15, 4 = 16-20, 5 = More than 20 classes).

**Percentage of Hybrid/Blended Classes (Faculty).** Percentage of Hybrid classes was identified on an ordinal scale by asking faculty, “What is the average percentage of hybrid classes you teach per semester?” (1 = 0-25%, 2 = 26-50%, 3 = 51-75%, 4 = 76-100%).

**Training Concerning Blended Class Development and/or Teaching (Faculty).** Training was identified on a nominal scale by asking faculty, “Have you completed training concerning developing and/or teaching hybrid classes?” (1 = No, 2 = Yes,

through MCCCDC Workshops, 3 = Yes, through graduate/post-graduate classes, 4 = Yes, through non-MCCCD workshops, 5 = Other ). Multiple answers were permitted.

**Gender (Students).** Gender was identified on a nominal scale by faculty and students, “What is your gender?” (1 = Female, 2 = Male).

**Ethnicity (Students).** Ethnicity was identified on a nominal scale by faculty and students, “What is your ethnicity? (1 = African American, 2 = Asian, 3 = Caucasian, 4 = Hispanic, 5 = Other).

**Age range (Students).** Age range was identified on an ordinal scale by asking faculty and students, “What is your age group?” (1 = Under 25, 2 = 26-35, 3 = 36-45, 4 = 46-55, 5 = 56-65, 6 = Over 65).

**College Education (Students).** College education was identified on an ordinal scale by asking students, “What is your College Education (including this semester)?” (1 = 1-12 credits, 2 = 13-24 credits; 3 = 25-36 credits, 4 = 37-48 credits, 5 = More than 48 credits).

**Program Area (Students).** Program area was identified on a nominal scale by asking students, “What is your program area?” (1 = Academic, 2 = Occupational, 3 = Other ).

**Enrollment Status (Students).** Enrollment status was identified on a nominal scale by asking students, “What is your enrollment status?” (1 = Full-time (12 or more credits per semester), 2 = Part-time (Less than 12 credits per semester).

**Number of Hybrid/Blended Classes (Students).** Number of Hybrid classes was identified on an ordinal scale by asking students, “How many hybrid/blended classes

have you taken (including this semester)?" (1 = 1-5, 2 = 6-10, 3 = 11-15, 4 = 16-20, 5 = More than 20 classes).

**Percentage of Hybrid/Blended Classes (Students).** Percentage of Hybrid classes was identified on an ordinal scale by asking students, "What is the average percentage of hybrid classes you take per semester?" (1 = 0-25%, 2 = 26-50%, 3 = 51-75%, 4 = 76-100%).

**Orientation Concerning Blended or Online Classes (Students).** Orientation was identified on a nominal scale by asking students, "Have you completed an orientation or training concerning taking hybrid or online classes?" (1 = No, 2 = Yes).

### **Data Collection, Processing, and Analysis**

The proposed study was designed as descriptive and exploratory research. Dr. Gonzalez-Castillo's study of faculty attitudes concerning student course effectiveness factors for blended classes in an urban community college was the catalyst for this proposed study (2008). This study was planned to expand to include a comparison of student and faculty perceptions of factors contributing to course effectiveness as well as perceived challenges that may result in decreased course effectiveness at a large, diverse, community college in the Southwestern United States. The quantitative method study was limited to faculty teaching blended classes and students who participated in blended classes during the Spring 2014 and Fall 2014 semesters at the participating college.

Four research questions guided the development of the study.

1. What were the attitudes of faculty and students towards factors that may increase course effectiveness in a blended classroom environment?

2. Was there a difference in the attitudes of faculty and students regarding factors that may increase course effectiveness for students of blended classes?
3. What were the attitudes of faculty and students towards challenges that may decrease course effectiveness in a blended classroom environment?
4. Was there a difference in attitudes of faculty and students regarding challenges that may decrease course effectiveness for students of blended classes?.

The study used a quantitative methodology approach to explore and evaluate both the students' awareness, attitudes, and perspective of course effective factors and the perspective and attitudes of the faculty teaching in the blended environment at the participating college. The study was non-experimental, descriptive, with a focus on a naturalistic approach that assumed that the perspectives of the participants involved construct social reality.

Dr. Gonzalez-Castillo's gave permission to use and modify her 2008 faculty questionnaire (see Appendix A). Demographic questions were adapted as needed to better provide information concerning the participating college faculty targeted to complete this survey. Three additional demographic questions were added to the study's faculty survey to clarify training and experience in teaching blended classes. Questions concerning the benefits that may contribute to course effectiveness were further delineated and questions were added concerning challenges that may possibly decrease course effectiveness. Additional open-ended questions were included to gather faculty perceptions of possible blended learning best practices and to help identify potential strategic implementation options for best practices in the blended classroom (see Appendix E).

A second, similar questionnaire was developed for students to take, based upon the revised faculty survey, including demographic questions concerning the students' experience with blended classes. The expanded questions were also included in the students' survey to enable a comparison of the data (see Appendix F).

The two surveys were based upon a proven questionnaire (Gonzalez-Castillo, 2008), with information gathered from a similar sample. The quantitative data collected was evaluated using descriptive and inferential statistics and was presented in tables using the Likert-type level of measurement. All questions and possible answers in the questionnaire were coded with unique identifiers to support analysis.

Quantitative data collected for each of the four research questions was evaluated using descriptive and inferential statistics and was presented using the Likert-type level of measurement. The Likert-type level of measurement allowed for higher order statistical analyses. Thirty-five Likert-type items in the modified HCEQ for faculty utilized a four-point Likert-scale with responses ranging from 1 – 4. A rating of 4 will indicated *strongly agree*, a rating of 3 signified *agree*, a rating of 2 indicated *disagree*, and a rating of 1 indicated *strongly disagree*. In addition to this, nine questions collected demographic data and ten additional open-ended questions collected descriptive answers to provide supplemental data. Nineteen Likert-type items in the modified HCEQ for students utilized a four-point Likert-scale with responses ranging from 1 – 4. A rating of 4 indicated *strongly agree*, a rating of 3 signified *agree*, a rating of 2 indicated *disagree*, and a rating of 1 indicated *strongly disagree*. In addition to this, nine questions collected demographic data and additional open-ended questions collected descriptive answers to provide supplemental data.

The  $t$  test two-sample assuming unequal variances was used to acquire inferential statistical data. The  $t$  test used distribution of sample means to determine if significant differences existed between mean scores.

Quantitative data analysis included obtaining numerical ratings obtained from Likert-type scales used in sections B, C, D, E and F for faculty and sections B, C, and D for students. All quantitative information was exported into an Excel worksheet from the survey tool. The data was reviewed to ascertain if it conformed to desired standards for statistical analysis. Excel was used to enter and analyze data.

Descriptive statistics were based upon the participants' self-reported data from each survey. Statistical analysis was used to test the research questions.

Additional data was collected from faculty and student responses to open-ended questions. The data was analyzed for trends and patterns as they applied to faculty teaching and students taking hybrid classes at the target community college.

The summary results were shared with faculty participants at the end of the study. Possible organizational strategies and implementation plans were shared with the applicable department chair, dean, or college department.

### **Assumptions**

Assumptions were present in this study: (a) The faculty population for this study was representative of the general population of community college faculty teaching blended classes in an urban area; (b) The student population for this study was representative of the general population of community college students taking blended classes in an urban area; (c) Participating faculty had taught blended classes and were comfortable with the necessary technology; (d) Data generated from the modified Hybrid

Course Effectiveness Questionnaire (HCEQ) would accurately measure faculty and student attitudes and perceptions regarding hybrid course effectiveness by examining factors and challenges; (e) The methods of data collection and analysis used in the study produced reliable information.

### **Limitations**

The focus of this quantitative study was the perceptions of both the students and the faculty at one large community college in the Southwestern United States. The small purposive samples limited the scope of students, but the size of the college, the diversity of the faculty and student respondents contributed to the generalizability of the study's findings to other community colleges.

### **Delimitations**

The delimitations of this study were determined by a desire to identify perceptions of faculty and students participating specifically in blended classes. This decision was made to address gaps in literature and to meet needs of faculty developing courses at the participating community college. A purposive sample of faculty who had teaching experience in a blended class format and students who had experience taking blended classes was chosen. Due to the size of the participating college and number of hybrid classes offered, the sample size was determined to be sufficient.

### **Ethical Assurances**

The study addressed ethical considerations for research involving humans including using the appropriate consent forms and received approval from both the Institutional Review Boards of Northcentral University and the participating college before data was collected (see Appendix C). After the required IRB approvals were



received, the surveys were distributed via the web using the Maricopa Community College email addresses to the faculty and students who were involved in blended learning classes during Spring 2014 and Fall 2014 semesters. The survey introduction email informed faculty and students that they could leave the study at any time and asked that students under the age of 18 opt out of the study (see Appendix D).

Google forms, the instrument recommended by the participating college's E-Learning Director automatically compiled all data in two separate electronic spreadsheets (one for each survey), and the results were then downloaded into Microsoft Excel 2013 and SPSS and were analyzed.

### **Summary**

The study used a quantitative methodology approach to explore and evaluate both the students' awareness, attitudes, and perspective of course effective factors and the perspective and attitudes of the faculty teaching in the blended environment at the participating college. Two web questionnaires were used to gather data in the study which was non-experimental, descriptive, with a focus on a naturalistic approach that assumed that the perspectives of the participants involved constructed social reality. The research explored relationships using textual instead of numerical data for the additional open-ended questions (Tabar-Gaul, 2008). The focus of the study was on the process, understanding that change is ongoing (Creswell, 2004; Yin, 2004). The conceptual and theoretical framework of the study was derived from gaps in literature and from both the students' and faculty's perspective of effective blended learning factors and strategies leading to quality, successfully blended learning in a higher education environment.

The objectives for this quantitative, exploratory and evaluative study included: (a) reviewing and exploring existing blended learning models through a literature review to gain further theoretical knowledge in this area; (b) adding to the existing literature collection and scholarly research in the area of blended learning and its effect on teaching and learning; (c) conducting surveys of faculty and students in blended classes at a two-year community college; (d) compiling, analyzing, and evaluating data from the study using a quantitative research method; (e) identifying and comparing the course effectiveness factors from the perspectives of faculty and students in blended classes; (f) compiling a list of best practices for strategic implementation for blended learning from the summarized findings; (g) identifying and reporting to faculty ways to incorporate the identified success factors purposefully and strategically to enhance student learning; and (h) identifying any gaps between the students' perspectives, faculty assumptions, and current literature about the purpose, strategies, and characteristics of quality instruction leading to blended learner success.

The researcher used theoretical frameworks as a guide to structure the study, an exploratory, non-experimental, study of effective blended learning characteristics and strategies with an emphasis on discovery, not statistical inference. The category was survey research because quantitative and open-ended questions resulted in the most information gathered from participants. Although the focus was on one large, diverse, community college in the Southwest, the findings should assist with solving blended learning issues in other institutions of higher learning.

## Chapter 4: Findings

The purpose of this quantitative methodology research study was to examine attitudes of faculty and students regarding factors that may increase course effectiveness and challenges that may decrease course effectiveness. Secondly, there was the opportunity to identify best practices and a strategic approach in developing blended courses that promote quality higher education instruction and learner success as perceived by both the students and the faculty at a large community college in the Southwestern United States.

To accomplish this, two web surveys were administered, one for faculty and one for students regarding course effectiveness factors to gather data through quantitative and open-ended questions to obtain data relevant to fulfilling the purpose of this study. The quantitative data obtained from each of the surveys was analyzed through descriptive and inferential statistics. The respective demographic data was gathered for either faculty and student participants in Section A of both web surveys.

The  $t$  test independent two-sample assuming unequal variances was used for Section B to acquire inferential statistical data. The  $t$  test used distribution of sample means to determine if significant differences existed between mean scores (De Winter, 2013). The  $t$  test was selected because the hypotheses required a determination whether significant differences existed between the faculty and student responses. Since no prior research was available, it was assumed that the dependent variables and questions were not correlated since no previous studies were available to ascertain if they would be correlated.

For educators to make decisions about the strategic design of blended learning, they need to understand the characteristics and factors contributing to learners' success in order to develop necessary implementation strategies. The study answered the following four research questions through surveys of faculty and students at the participating college.

**Q1.** What were the attitudes of faculty and students towards factors that may increase course effectiveness in a blended classroom environment?

Faculty and students responded to twelve statements regarding levels of agreement concerning the benefits of hybrid courses for students that would contribute to an increase in course effectiveness for students in Section B1 of both web surveys. Additional data was gathered through open-ended questions in Section E in the faculty survey and Section D in the student survey, asking the participants to share any additional examples of hybrid course benefits as course effectiveness factors that were not included in the survey.

**Q2.** Is there a difference in the attitudes of faculty and students regarding factors that may increase course effectiveness for students of blended classes?

Data collection and analysis addressed **H1<sub>0</sub>**. There was no significant difference between faculty and students' attitudes of the factors that may increase course effectiveness for students of blended learning classes and **H1<sub>a</sub>**. There was a significant difference between faculty and students' attitudes of the factors that may increase course effectiveness for students of blended learning courses.

Twelve independent *t* tests were conducted comparing faculty and student levels of agreement regarding the benefits of hybrid courses for students that would contribute to an increase in course effectiveness for students.

**Q3.** What are attitudes of faculty and students towards challenges that may decrease course effectiveness in a blended classroom environment?

Faculty and students responded to four statements regarding levels of agreement concerning the challenges of hybrid courses for students that would contribute to a decrease in course effectiveness for students in Section B2 of both web surveys. Additional data was gathered through open-ended questions in Section E in the faculty survey and Section D in the student survey, asking the participants to share any additional examples of possible hybrid course challenges that could decrease course effectiveness factors that were not included in the survey.

**Q4.** Is there a difference in attitudes of faculty and students regarding challenges that may decrease course effectiveness for students of blended classes? Data collection and analysis addressed **H2<sub>0</sub>**. There was no significant difference between faculty and students' attitudes of the challenges that may decrease course effectiveness for students of blended learning classes and **H2<sub>a</sub>**. There was a significant difference between faculty and students' attitudes of the challenges that may decrease course effectiveness for students of blended learning classes. Four independent *t* tests were conducted comparing faculty and student levels of agreement regarding the challenges of hybrid courses for students that would contribute to a decrease in course effectiveness for students.

Additional data obtained from the open-ended questions in Section E for faculty and Section D for students were analyzed for trends as they applied to community college

faculty teaching blended classes and students taking blended classes. This chapter presents the results of the data analysis for the four research questions and addresses the hypotheses for quantitative questions two and four.

## **Results**

*Descriptive statistics: faculty.* The purposive sample used for this study consisted of 31 faculty members from one large Southwest community college who taught blended classes during the Spring 2014 and Fall 2014 semesters. Descriptive data were reported for nine demographic variables: gender, ethnicity, age, teaching experience, teaching area, faculty status (full-time and adjunct), number of college hybrid/blended classes taught, percentage of hybrid classes taught per semester, and hybrid training completion.

The gender distribution for the faculty sample mirrored national demographic data of community college in that faculty members are predominately female (Phillippe & Sullivan, 2005). Of the 31 participants, 24 (77%) were female, and 7 (23%) were male (See Table 5)

Table 5 represented the ethnic distribution available for 30 faculty (one opted out of responding). Of the 30 faculty responding none were African American, 1 (3%) was Asian, 26 (87%) were Caucasian, 1 (3%) was Hispanic, and 2 (7%) listed their ethnicity as Other.

As indicated in Table 5, all of the 31 faculty responding were over the age of 25, and the largest number (39%) faculty were in the 46-55 age group.

Table 5

*Faculty Participant Characteristics: Gender, Ethnicity, and Age*

Characteristic	Frequency	Percent
<b>Gender</b>		
Female	24	77
Male	7	23
<b>Ethnicity*</b>		
African American	0	0
Asian	1	3
Caucasian	26	87
Hispanic	1	3
Other	2	7
<b>Age Group</b>		
Under 25	0	0
25-35	2	6
36-45	9	29
46-55	12	39
56-65	6	19
Over 65	2	6

*Note: n = 31*

*\*n = 30*

The teaching experience distribution for faculty (see Table 6) indicated 16% of the faculty had been teaching 10 years or less, a combined 61% had taught for 11 to 20 years, and 22% had over 20 years of teaching experience.

Fifteen (48%) of the participating faculty taught in the academic teaching area, 12 (39%) taught in occupational areas, while 4 (13%) taught in other, non-identified areas (see Table 6).

As indicated in Table 6, of the 31 participating faculty, 24 (77%) were full-time and 7 (23%) were adjunct (part-time).

Table 6

*Faculty Participants by Teaching Experience, Teaching Area, and Faculty Status*

Characteristic	Frequency	Percent
<b>Teaching Experience</b>		
5 years or less	3	10
6-10 years	2	6
11-15 years	9	29
16-20 years	10	32
21-30 years	5	16
More than 30 years	2	6
<b>Teaching Area</b>		
Academic	15	48
Occupational	12	39
Other	4	13
<b>Faculty Status</b>		
Full-time	24	77
Adjunct	7	23

*Note: n = 31*

Thirty-one faculty participated in the study. Including classes taught the Fall 2014 semester, most of the participating faculty (45%), were newer to teaching blended classes and had taught a total of 1 to 5 college hybrid/blended classes, 22% had taught 6 to 15 classes, and 32% had taught more than 15 classes (see Table 7).

As indicated in Table 7, 45% of the 31 faculty participants taught an average of 25% or less hybrid classes taught per semester, 13% taught an average of 26% to 50%



classes per semester, 10% taught an average of 51 to 75%, and 23% taught an average of 76% or more per semester.

Table 7

*Faculty Participants: Number and Percentage Hybrid/Blended Classes Taught and Training Completed*

Characteristic	Frequency	Percent
<b>Blended Classes Taught</b>		
1-5	14	45
6-10	6	19
11-15	1	3
16-20	4	13
More than 20 classes	6	19
<b>Average No. of Blended Classes Taught per Semester</b>		
0-25%	17	45
26-50%	4	13
51-75%	3	10
76-100%	7	23

*Note: n = 31*

Faculty participants were asked to indicate whether they had received training on developing and/or teaching hybrid classes. All but 7 (25%) of the 31 participating faculty had completed some type of training in this area. The 24 (75%) faculty who completed training were able to indicate multiple types of training completed. Twenty-two (69%)

faculty completed Maricopa Community College District (MCCD) workshops, 7 (22%) received training through graduate and/or post-graduate classes, 9 (28%) took non-MCCD classes for their training and 2 (6%) completed training somewhere else.

*Descriptive statistics: students.* The purposive sample used for this study consisted of 170 students from one large Southwest community college who attended blended classes during the Spring 2014 and Fall 2014 semesters. Descriptive data were reported for nine demographic variables: gender, ethnicity, age, college education, program area, enrollment status (full-time and part-time), number of college hybrid/blended classes taken, percentage of hybrid classes taken per semester, and orientation training completion.

Of the 170 student participants, gender distribution indicated that 66% were female, and 34% were male (see Table 8).

As indicated in Table 8, the ethnic distribution was available for 169 students (one opted out of responding). Of the 169 students responding 7% were African American, 7% were Asian, 63% were Caucasian, 12% were Hispanic, and 11% listed their ethnicity as Other.

Students under the age of 18 were asked to opt out of taking the survey. Almost half of the students (48%) of the 170 students responding were under the age of 25, 29% students were between the ages of 25 and 35, and the remainder were split (11% each) between in the 36-45 and 46-55 age groups. No students indicated they were over 55 (see Table 8).

Table 8

*Student Participant Characteristics: Gender, Ethnicity, and Age*

Characteristic	Frequency	Percent
<b>Gender</b>		
Female	113	66
Male	57	34
<b>Ethnicity*</b>		
African American	11	7
Asian	12	7
Caucasian	107	63
Hispanic	20	12
Other	19	11
<b>Age Group</b>		
Under 25	82	48
25-35	50	29
36-45	19	11
46-55	19	11
56-65	0	0
Over 65	0	0

*Note: n = 170*

*\*n = 169*

The number of college credits completed through the Fall 2014 semester was illustrated in Table 9. It indicated a fairly-even division among most of the students in 12-credit increments (1-12 through 37-48) of 16% or 19%, with the exception of 32% of the participating students having taken more than 48 credits at that point in their education.

As illustrated in Table 9, the majority, or 116 (69%), of the participating students were enrolled in an academic program, 46 (27%) were enrolled in an occupational program, while 7 (4%) were enrolled in other, non-identified areas.

The majority (71%) of the participating students were full-time students and 29% were enrolled part-time (see Table 9).

Table 9

*Student Participants by College Education, Program Area, and Student Status*

Characteristic	Frequency	Percent
<b>Number of College Credits</b>		
1-12 credits	28	16
13-24 credits	33	19
25-36 credits	27	16
37-48 credits	28	16
More than 48 credits	54	32
<b>Program Area*</b>		
Academic	116	69
Occupational	46	27
Other	7	4
<b>Student Status</b>		
Full-time	120	71
Part-time	50	29

*Note: n = 170*

*\*n = 169*

As illustrated by Table 10, the majority (87%) of the 170 participating students were new to blended learning and had attended a total of 1 to 5 college hybrid/blended classes. Ten percent of the students had attended 6 to 10 classes, and the remaining (4%) had taken more than 10 blended learning classes.

As indicated in Table 10, 61% of the 170 student participants took an average of 25% or less hybrid classes per semester, 19% took an average of 26% to 50% classes per semester, and the remaining were split between taking an average 51% to 75% and 76% or more hybrid classes per semester (9% and 11% respectively).

Ninety-three (55%) of the 170 participating students did not complete a hybrid/blended orientation offered by the college, although 45% of the students did attend the orientation (see Table 10).

Table 10

*Student Participants: Number and Percentage Hybrid/Blended Classes Taken and Training Completed*

Characteristic	Frequency	Percent
<b>Blended Classes Taken**</b>		
1-5	148	87
6-10	17	10
11-15	3	2
16-20	1	1
More than 20 classes	1	1
<b>Average No. of Blended Classes Taken per Semester</b>		
0-25%	103	61
26-50%	33	19
51-75%	15	9
76-100%	19	11
<b>Training Received</b>		
No	93	55
Yes	77	45

*Note: n = 170*

*\*\* Total percent more than 100 due to rounding of the last two items*

## Evaluation of Findings

The  $t$  test independent two-sample assuming unequal variances was used to acquire inferential statistical data for Section B. The  $t$  test used distribution of sample means to determine if significant differences existed between mean scores (De Winter, 2013). The  $t$  test was selected because the hypotheses required a determination whether significant differences existed between the faculty and student responses.

There were 16 independent  $t$  tests conducted comparing faculty and student levels of agreement for Section B: Hybrid Course Benefits and Challenges Affecting Course Effectiveness for Students. Twelve of the  $t$  tests were regarding the benefits of hybrid courses for students that would contribute to an increase in course effectiveness for students. Four of the  $t$  tests were regarding the challenges of hybrid courses for students that would contribute to a decrease in course effectiveness for students.

***Faculty and student perceptions of benefits.*** Each statement for both faculty and students began with the following: “B1. Please indicate the degree of your agreement with each of the following statements regarding the benefit of hybrid courses for students that would contribute to course effectiveness for students. (One choice for each statement)

*B1A. Increased flexibility that allows the adult learner to juggle personal, work-related, and educational objectives compared to a lecture course.* As indicated by Tables 11 and 12, there was a significant difference in the results for faculty ( $M=3.6$ ,  $SD=0.49$ ) and students ( $M=3.3$ ,  $SD=0.91$ ) conditions;  $t(75)=3.46$ ,  $p=0.001$ . For the factor of increased flexibility (B1A) the null hypothesis is rejected. At a 0.05 level of significance,

there is evidence to conclude that there is a statistically significant difference in the Mean perception of increased flexibility between students and faculty.

Table 11 B1A

*Increased Flexibility Group***Group Statistics**

Role/B1A	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Increased flexibility	31	3.645	.4864	.0874
Student: Increased flexibility	170	3.259	.9056	.0695

Table 12 B1A

*Increased Flexibility Independent Samples***t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B1A. Increased flexibility	Equal variances assumed	7.353	.007	2.312	199	.022	.3863	.1671
	Equal variances not assumed			3.462	74.631	.001	.3863	.1116

*Note: p= 0.05*

*B1B. Enhanced critical thinking and problem solving skills.* As indicated by Tables 13 and 14, the t-test two sample assuming equal variances for factor B1B: Critical Thinking and Problem Solving shows there was no significant difference in the results for

faculty (M=3.1, SD=0.75) and students (M=3.0, SD=0.77) conditions;  $t(199)=0.77$ ,  $p=0.443$ .

For the factor of critical thinking and problem solving (B1B) there is not sufficient evidence to reject the null hypothesis. At a 0.05 level of significance, there is not substantial evidence to conclude that there is a statistically significant difference in the Mean perception of critical thinking and problem solving between students and faculty.

Table 13 B1B

*Critical Thinking and Problem Solving Skills Group*

**Group Statistics**

Role/B1B	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Critical thinking and problem solving skills	31	3.097	.7463	.1340
Student: : Critical thinking and problem solving skills	170	2.982	.7652	.0587

Table 14 B1B

*Critical Thinking and Problem Solving Skills Independent Samples*

**t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B1B. Critical thinking	Equal variances assumed	.734	.393	.769	199	.443	.1144	.1489



**t-Test: Two-Samples**

	Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
and problem solving skills	Equal variances not assumed			.782	42.327	.439	.1144	.1463

*Note: p= 0.05*

*B1C. Enhanced time management skills.* As indicated by Tables 15 and 16, the t-test two sample assuming equal variances for factor B1C Enhanced shows there was no significant difference in the results for faculty (M=3.1, SD=0.56) and students (M=3.4, SD=0.79) conditions;  $t(198)=1.90$ ,  $p=0.059$ . For the factor of enhanced time management skills (B1C) the null hypothesis is rejected. At a 0.05 level of significance, there is evidence to conclude that there is a statistically significant difference in the Mean perception of increase flexibility between students and faculty.

Table 15 B1C

*Enhanced Time Management Skills Group***Group Statistics**

Role/B1C	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Enhanced time management skills	31	3.419	.5642	.1013
Student: Enhanced time management skills	169	3.136	.7938	.0611

Table 16 B1C

*Enhanced Time Management Skills Independent Samples***t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B1B. Critical thinking and problem solving skills	Equal variances assumed	.233	.630	1.899	198	.059	.2833	.1492
	Equal variances not assumed			2.394	54.465	.020	.2833	.1183
<i>Note: p= 0.05</i>								

*B1D. Enhanced computer skills.* As indicated by Tables 17 and 18, the t-test two sample assuming equal variances for factor B1D: Enhanced Computer Skills shows there was no significant difference in the results for faculty (M=3.2, SD=0.65) and students (M=3.1, SD=0.78) conditions;  $t(197)=0.34$ ,  $p=0.733$ .

For the factor of enhanced computer skills (B1D) there is not sufficient evidence to reject the null hypothesis. At a 0.05 level of significance, there is no evidence to conclude that there is a statistically significant difference in the Mean perception of enhanced computer skills between students and faculty.

Table 17 B1D

*Enhanced Computer Skills Group***Group Statistics**

Role/B1D	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Enhanced computer skills	31	3.194	.6542	.1175
Student: : Enhanced computer skills	168	3.143	.7760	.0599

Table 18 B1D

*Enhanced Computer Skills Independent Samples***t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B1D. Enhanced computer skills	Equal variances assumed	.269	.605	.342	197	.733	.0507	.1483
	Equal variances not assumed			.384	47.033	.702	.0507	.1319
<i>Note: p= 0.05</i>								

*B1E. Greater access to the instructor compared to an online course.* As indicated by Tables 19 and 20, the t-test two sample assuming equal variances for factor B1E: Greater Instructor Access there was no significant difference in the results for faculty (M=3.6, SD=0.56) and students (M=3.1, SD=0.89) conditions;  $t(199)=2.82$ ,  $p=0.005$ .

For the factor of greater instructor access (B1E) the null hypothesis is rejected. At a 0.05 level of significance, there is evidence to conclude that there is a statistically significant difference in the Mean perception of greater instructor access between students and faculty.

Table 19 B1E

*Greater Instructor Access Group***Group Statistics**

Role/B1E	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Greater instructor access	31	3.581	.5642	.1013
Student: Greater instructor access	170	3.112	.8934	.0685

Table 20 B1E

*Greater Instructor Access Independent Samples***t-Test: Two-Samples**

	Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B1D. Enhanced computer skills	Equal variances assumed	2.463	.118	2.818	199	.005	.4689	.1664
	Equal variances not assumed			3.833	61.427	.000	.4689	.1223

*Note: p= 0.05*

*B1F. Students can manage and monitor their own course progress and become more responsible learners.* As indicated by Tables 21 and 22, the t-test two sample assuming equal variances for factor B1F: Students Manage and Monitor Their Progress shows there was no significant difference in the results for faculty (M=3.2, SD=0.56) and students (M=3.2, SD=0.78) conditions;  $t(199)=0.22$ ,  $p=0.829$ .

For the factor of students can manage and monitor their progress (B1F) there is not sufficient evidence to reject the null hypothesis. At a 0.05 level of significance, there is not substantial evidence to conclude that there is a statistically significant difference in the Mean perception of students managing and monitoring their progress between students and faculty.

Table 21 B1F

*Students Manage and Monitor Their Progress Group*

<b>Group Statistics</b>				
Role/B1F	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Students manage and monitor their progress	31	3.226	.5603	.1006
Student: Students manage and monitor their progress	170	3.194	.7791	.0598

Table 22 B1F

*Students Manage and Monitor Their Progress Independent Samples*

**t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B1F. Students manage and monitor their progress	Equal variances assumed	2.526	.114	.216	199	.829	.0317	.1465
	Equal variances not assumed			.271	53.699	.788	.0317	.1170
<i>Note: p= 0.05</i>								

*B1G. Varied and interactive learning materials that accommodate various learning styles.* As indicated by Tables 23 and 24, the t-test two sample assuming equal variances for factor B1G: Interactive Learning Materials that Accommodate Learning Styles shows there was no significant difference in the results for faculty (M=3.3, SD=0.65) and students (M=3.0, SD=0.85) conditions;  $t(199)=1.96$ ,  $p=0.051$ .

For the factor of interactive learning materials that accommodate learning styles (B1G) the null hypothesis is rejected. At a 0.05 level of significance, there is evidence to conclude there is a statistically significant difference in the Mean perception of the availability of interactive learning materials that accommodate learning styles between students and faculty.

Table 23 B1G

*Interactive Learning Materials that Accommodate Learning Styles Group*

**Group Statistics**

Role/B1G	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Interactive learning materials that accommodate learning styles	31	3.323	.6525	.1172
Student: Interactive learning materials that accommodate learning styles	170	3.006	.8531	.0654

Table 24 B1G

*Interactive Learning Materials that Accommodate Learning Styles Independent Samples*

**t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B1G. : Interactive learning materials that accommodate learning styles	Equal variances assumed	.002	.966	1.963	199	.051	.3167	.1613
	Equal variances not assumed			2.359	50.740	.022	.3167	.1342
<i>Note: p = 0.05</i>								

*B1H. Greater course participation for timid students.* As indicated by Tables 25 and 26, the t-test two sample assuming unequal variances for factor B1H: Timid Students' Course Participation shows there was a significant difference in the results for

faculty (M=3.0, SD=0.60) and students (M=2.9, SD=0.91) conditions;  $t(58)=0.94$ ,  $p=0.352$ .

For the factor of timid students' course participation (B1H) there is not sufficient evidence to reject the null hypothesis. At a 0.05 level of significance, there is not substantial evidence to conclude that there is a statistically significant difference between students and faculty in the Mean perception of greater course participation for timid students.

Table 25 B1H

*Timid Students' Course Participation Group*

**Group Statistics**

Role/B1A	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Timid Students' Course Participation	31	3.032	.6046	.1086
Student: Timid Students' Course Participation	169	2.911	.9052	.0696

Table 26 B1H

*Timid Students' Course Participation Independent Samples*

**t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B1A. Increased flexibility	Equal variances assumed	8.421	.004	.715	198	.476	.1210	.1693
	Equal variances not assumed			.938	57.990	.352	.1210	.1290



<i>Note: p= 0.05</i>
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*B1I. Access to pre-recorded lectures and course materials for review if needed or missed by the student.* As indicated by Tables 27 and 28, the t-test two sample assuming equal variances for factor B1I: Student Access to Pre-Recorded Materials shows there was no significant difference in the results for faculty (M=3.2, SD=0.62) and students (M=3.0, SD=0.90) conditions;  $t(198)=1.10, p=0.273$ .

For the factor of student access to pre-recorded materials (B1I) there is not sufficient evidence to reject the null hypothesis. At a 0.05 level of significance, there is not substantial evidence to conclude that there is a statistically significant difference in the Mean perception of student access to pre-recorded materials between students and faculty.

Table 27 B1I

*Student Access to Pre-Recorded Materials Group*

**Group Statistics**

Role/B1I	N	Mean	Std. Deviation	Std. Error Mean
Faculty: : Student access to pre-recorded materials	31	3.226	.6170	.1108
Student: : Student access to pre-recorded materials	169	3.041	.8955	.0689

Table 28 B1I

*Student Access to Pre-Recorded Materials Independent Samples***t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B1I. Student Access to Pre-Recorded Materials	Equal variances assumed	2.386	.124	1.099	198	.273	.1844	.1679
	Equal variances not assumed			1.413	56.166	.163	.1844	.1305
<i>Note: p= 0.05</i>								

*B1J. Greater opportunities to present ideas within the privacy of their homes.* As indicated by Tables 29 and 30, the t-test two sample assuming equal variances for factor B1J: Present Ideas within the Privacy of Their Homes shows there was no significant difference in the results for faculty (M=3.0, SD=0.68) and students (M=3.0, SD=0.78) conditions;  $t(198)=-0.36$ ,  $p=0.723$ .

For the factor of the opportunities to present ideas within the privacy of their homes (B1J) there is not sufficient evidence to reject the null hypothesis. At a 0.05 level of significance, there is not substantial evidence to conclude that there is a statistically significant difference in the Mean perception of the opportunities to present ideas within the privacy of their homes between students and faculty.

Table 29 B1J

*B1J. Present Ideas within the Privacy of Their Homes Group*

**Group Statistics**

Role/B1J	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Present ideas within the privacy of their homes	31	3.000	.6831	.1227
Student: Present ideas within the privacy of their homes	169	3.053	.7812	.0601

Table 30 B1J

*Present Ideas within the Privacy of Their Homes Independent Samples*

**t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B1J. : Present ideas within the privacy of their homes	Equal variances assumed	.460	.498	-.355	198	.723	-.0533	.1499
	Equal variances not assumed			-.390	45.649	.698	-.0533	.1366

*Note: p= 0.05*

*B1K. Optimized face-to-face class time with faculty and other students to focus on challenging course modules.* As indicated by Tables 31 and 32, the t-test two sample assuming equal variances for factor B1K: Optimized Face-To-Face Class Time shows

there was no significant difference in the results for faculty ( $M=3.4$ ,  $SD=0.66$ ) and students ( $M=3.1$ ,  $SD=0.87$ ) conditions;  $t(198)=1.87$ ,  $p=0.063$ .

For the factor of optimized face-to-face class time (B1K) the null hypothesis is rejected.

Table 31 B1K

*Optimized Face-To-Face Class Time Group*

**Group Statistics**

Role/B1K	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Optimized face-to-face class time	31	3.355	.6607	.1187
Student: Optimized face-to-face class time	169	3.047	.8716	.0670

Table 32 B1K

*Optimized Face-To-Face Class Time Independent Samples*

**t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B1K. Optimized Face-To-Face Class Time	Equal variances assumed	.195	.659	1.867	198	.063	.3075	.1647
	Equal variances not assumed			2.256	51.275	.028	.3075	.1363

*Note: p= 0.05*

*B1L. Greater student success as measured by decreased withdrawal rates. As*

indicated by Tables 33 and 34, the t-test two sample assuming equal variances for factor

B1L: Student Success Measured by Withdrawal Rates shows there was no significant difference in the results for faculty (M=2.6, SD=0.93) and students (M=2.9, SD=0.90) conditions;  $t(199)=0.77$ ,  $p=0.443$ .

For the factor of student success measured by withdrawal rates (B1L) the null hypothesis is rejected. At a 0.05 level of significance, there is evidence to conclude that there is a statistically significant difference in the Mean perception of student success measured by withdrawal rates between students and faculty.

Table 33 B1L

*Student Success Measured by Withdrawal Rates Group*

**Group Statistics**

Role/B1L	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Student success measured by withdrawal rates	30	2.633	.9279	.1694
Student: Student success measured by withdrawal rates	169	2.888	.8960	.0689

Table 34 B1L

*Student Success Measured by Withdrawal Rates Independent Samples*

**t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B1L. Student success	Equal variances assumed	1.514	.220	1.425	197	.156	-.2542	.1785

**t-Test: Two-Samples**

	Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
measured by withdrawal rates	Equal variances not assumed			1.390	39.209	.172	-.2542	.1829
<i>Note: p= 0.05</i>								

There were 12 independent *t* tests conducted that compared faculty and student levels of agreement regarding the benefits of hybrid courses for students that would contribute to an increase in course effectiveness for students. The results for research question two, that addressed this comparison of factors, were split depending on the course effectiveness factor being addressed. Data collection and analysis addressed research question two, H1<sub>0</sub>. There was no significant difference between faculty and students' attitudes of the factors that may increase course effectiveness for students of blended learning classes.

The null hypothesis was rejected for six factors, which meant there was a difference in faculty and student responses. Although the majority of both faculty and students agreed or strongly agreed that five of the factors could increase course effectiveness (B1A: Increased Flexibility, B1C: Enhanced Time Management, B1E: Greater Instructor Access, B1G: Interactive Learning Materials that Accommodate Learning Styles, and B1K: Optimized Face-To-Face Class Time), up to 20 percent of the students either disagreed or strongly disagreed that these factors would increase course

effectiveness. Faculty disagreeing or strongly disagreeing with the effect of these five factors was minimal. For factor B1L: Student Success Measured by Withdrawal Rates, faculty were split evenly as to whether the factor would increase course effectiveness; however, the majority of the students agreed or strongly agreed that this factor would increase course effectiveness rates.

The null hypothesis was not rejected for the other six factors, which meant that there was no significant difference in faculty and student responses. The majority of participating faculty and students agreed or strongly agreed that the factors of B1B: Critical Thinking and Problem Solving Skills, B1D: Enhanced Computer Skills, B1F: Students Manage and Monitor Their Progress, B1H: Timid Students' Course Participation, B1I: Student Access to Pre-Recorded Materials, and B1J: Present Ideas within the Privacy of Their Homes, would increase course effectiveness. A higher percentage of students disagreed or strongly disagreed that B1H: Student Access to Pre-Recorded Materials and B1J: Present Ideas within the Privacy of Their Homes would increase course effectiveness.

*Faculty and student perceptions of challenges.* Each statement for both faculty and students began with the following: “B2. Please indicate the degree of your agreement with each of the following statements regarding the challenge of hybrid courses for students that would contribute to a decrease in course effectiveness for students. (One choice for each statement.)”

*B2A. Reduced access to the instructor compared to a face-to-face course.* As indicated by Tables 35 and 36, the t-test two sample assuming unequal variances for factor B2A: Reduced Access to the Instructor shows there was a significant difference in

the results for faculty ( $M=2.3$ ,  $SD=0.68$ ) and students ( $M=3.5$ ,  $SD=0.93$ ) conditions;  $t(53)=-1.87$ ,  $p=0.066$ .

For the factor of reduced access to the instructor (B2A) there is not sufficient evidence to reject the null hypothesis. At a 0.05 level of significance, there is not substantial evidence to conclude that there is a statistically significant difference in the Mean perception of reduced access to the instructor between students and faculty.

Table 35 B2A

*Reduced Access to the Instructor Group*

**Group Statistics**

Role/B2A	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Reduced access to the instructor	31	2.258	.6816	.1224
Student: Reduced access to the instructor	166	2.524	.9257	.0719

Table 36 B2A

*Reduced Access to the Instructor Independent Samples*

**t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B2A. Reduced Access to the Instructor	Equal variances assumed	6.613	.011	1.523	195	.129	-.2660	.1746
	Equal variances not assumed			1.874	53.087	.066	-.2660	.1419

*Note: p= 0.05*



*B2B. Increased need for student technology skills.* As indicated by Tables 37 and 38, the t-test two sample assuming equal variances for factor B2B: Increased Need for Student Technology Skills shows there was no significant difference in the results for faculty (M=3.1 SD=0.67) and students (M=2.9, SD=0.984) conditions;  $t(194)=1.53$ ,  $p=0.127$ .

For the factor of increased need for student technology skills (B2B) there is not sufficient evidence to reject the null hypothesis. At a 0.05 level of significance, there is not substantial evidence to conclude that there is a statistically significant difference in the Mean perception of increased need for student technology skills between students and faculty.

Table 37 B2B

*Increased Need for Student Technology Skills Group*

**Group Statistics**

Role/B2B	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Increased need for student technology skills	31	3.129	.6704	.1204
Student: Increased need for student technology skills	165	2.885	.8367	.0651

Table 38 B2B

*Increased Need for Student Technology Skills Independent Samples*

**t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B2B. Increased need for	Equal variances assumed	1.334	.250	1.534	194	.127	.2442	.1592

**t-Test: Two-Samples**

	Levene's Test for Equality of Variances		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
student technology skills	Equal variances not assumed			1.784	49.354	.081	.2442	.1369
<i>Note: p= 0.05</i>								

*B2C. A greater disconnect with on-campus services and activities.* As indicated by Tables 39 and 40, the t-test two sample assuming equal variances for factor B2C: Greater Campus Service and Activities Disconnect shows there was no significant difference in the results for faculty (M=2.6, SD=0.77) and students (M=2.44, SD=0.92) conditions;  $t(193)=0.62$ ,  $p=0.535$ .

For the factor of greater campus service and activities disconnect (B2C there is not sufficient evidence to reject the null hypothesis. At a 0.05 level of significance, there is not substantial evidence to conclude that there is a statistically significant difference in the Mean perception of greater campus service and activities disconnect between students and faculty.

Table 39 B2C

*Greater Campus Service and Activities Disconnect Group***Group Statistics**

Role/B2C	N	Mean	Std. Deviation	Std. Error Mean
Faculty Greater campus service and activities disconnect	31	2.548	.7676	.1379

Student: Greater campus service and activities disconnect	164	2.439	.9214	.0720
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Table 40 B2C

*Greater Campus Service and Activities Disconnect Independent Samples***t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B2C. Greater campus service and activities disconnect	Equal variances assumed	2.151	.144	.621	193	.535	.1094	.1761
	Equal variances not assumed			.703	47.913	.485	.1094	.1555
<i>Note: p= 0.05</i>								

*B2D. Ineffective communication prior to enrollment concerning definitions and expectations of hybrid modality.* As indicated by Tables 41 and 42, the t-test two sample assuming equal variances for factor B2D: Ineffective Communication Prior to Enrollment shows there was no significant difference in the results for faculty (M=3.1, SD=0.85) and students (M=2.4 SD=0.94) conditions;  $t(194)=3.57$ ,  $p=0.00$ .

For the factor of ineffective communication prior to enrollment (B2D) the null hypothesis is rejected. At a 0.05 level of significance, there is evidence to conclude that there is a statistically significant difference in the Mean perception of ineffective communication prior to enrollment between students and faculty.

Table 41 B2D

*Ineffective Communication Prior to Enrollment Group***Group Statistics**

Role/B2D	N	Mean	Std. Deviation	Std. Error Mean
Faculty: Ineffective communication prior to enrollment	31	3.065	.8538	.1534
Student: Ineffective communication prior to enrollment	165	2.418	.9375	.0730

Table 42 B2D

*Ineffective Communication Prior to Enrollment Independent Samples***t-Test: Two-Samples**

	Levene's Test for Equality of Variances			t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
B2D. Ineffective communication prior to enrollment	Equal variances assumed	2.342	.128	3.569	194	.000	.6463	.1811
	Equal variances not assumed			3.806	44.710	.000	.6463	.1698
<i>Note: p= 0.05</i>								

Four independent *t* tests were conducted comparing faculty and student levels of agreement regarding the challenges of hybrid courses for students that would contribute to a decrease in course effectiveness for students. The results for research question four, which asked if there was a difference between faculty and student attitudes of the

challenges that may decrease course effectiveness, were split depending on the course effective factor being addressed. Data collection and analysis addressed research question four. H1<sub>0</sub>. There was no significant difference between faculty and students' attitudes of the factors that may decrease course effectiveness for students of blended learning classes.

The null hypothesis was rejected for one factor, B2A: Reduced Access to the Instructor, which meant there was a difference in faculty and student responses. The majority of the faculty disagreed or strongly disagreed that the factor of reduced access to the instructor compared to a face-to-face class would be a challenge that may decrease course effectiveness. However, the responses of the participating students were split, with more agreeing or strongly agreeing that reduced access to an instructor compared to a face-to-face class would be a challenge that may decrease course effectiveness.

The null hypothesis was not rejected for the remaining three factors, B2B: Increased Need for Student Technology Skills, B2C: Greater Campus Service and Activities Disconnect, and B2D: Ineffective Communication Prior to Enrollment, which mean that there was not a significant difference in the responses of faculty and student concerning their perception of the factors. The majority of the faculty and students agreed or strongly agreed that factors B2B: Increased Need or Student Technology Skills and B2D: Ineffective Communication Prior to Enrollment were challenges that would decrease course effectiveness for students. Most of the faculty and students disagreed and strongly disagreed that factor B2C: Greater Campus Service and Activities Disconnect would be a challenge that would decrease course effectiveness for students, but the percentages for disagreement were higher from the student perspective.

*Percentage distributions for faculty sections C and D and student section C.* A percentage distribution of faculty responses was calculated for each question in Sections C: Hybrid Course Benefits and Challenges Affecting Course Effectiveness for Faculty (see Figures 2 and 3) and D: Faculty Changes in Teaching Practices (see Figure 4) from the faculty survey. The results of each of figures 2 through 4, are shown in bar chart Likert scale rating form consisting of “4 – Strongly Agree”, “3-Agree”, 2-Disagree”, and “1-Strongly Disagree”. The percentage distribution of the same Likert scale rating was also calculated and illustrated as a pie chart of student responses for each question in Section C: Student Changes in Learning Practices in the student survey (see Figures, 5, 6 and 7).

Figure 2 represents the percent distribution of faculty responses for survey questions (C1A – C1H) symbolized on the table as (FC1A – FC1H with the “F” included to denote faculty respondents).

*Faculty C1A (Withdrawal). Greater student success measured by decreased withdrawal rates.* Findings indicated there was only a 6% gap between the 45% of faculty respondents that agreed with the statement compared to 39% that disagreed, with only 10% or less strongly disagreeing or disagreeing. The findings showed that faculty only slightly perceived that greater students’ success could be contributed to decreased student withdrawal rates.

*Faculty C1B (Multi-modal). Self-paced and flexible instruction permits faculty to provide learning opportunities to a greater, diversified student body.* Findings indicated that a large percentage (91%) either agreed or strongly agreed to this statement compared to only 9% that either strongly agreed or disagreed. These results illustrated that faculty

perceived that self-paced and flexible instructions provided learning benefits to a larger and more diverse student body.

*Faculty CIC (Tech Skills). Acquisition of technological skills enhances faculty teaching techniques for both online and face-to-face course, which then helps foster a varied learning experience for their students.* A hefty 97% agreed or strongly agreed to this statement with only 3% disagreeing. This result overwhelming indicated that faculty perception about instructors' acquired technological skills do improve their teaching techniques, which helps them to foster a varied learning experience for their students.

*Faculty CID (Interaction). Increase interactions and contact with students compared to an online courses.* Responses indicated that 100% agreed or strongly agreed to this statement with the largest percentage portion (60%) strongly agreeing. These results clearly indicated that faculty perceived that hybrid courses permit more interaction and contact than online courses and contribute to course effectiveness.

*Faculty CIE (Timid). Increased access for timid students, because those students are more likely to participate with the online portion of the class.* Findings revealed that 84% agreed or strongly agreed to this statement with 16% disagreeing. These results indicated that faculty believed that hybrid courses do allow timid students to participate more in a hybrid course than an online course.

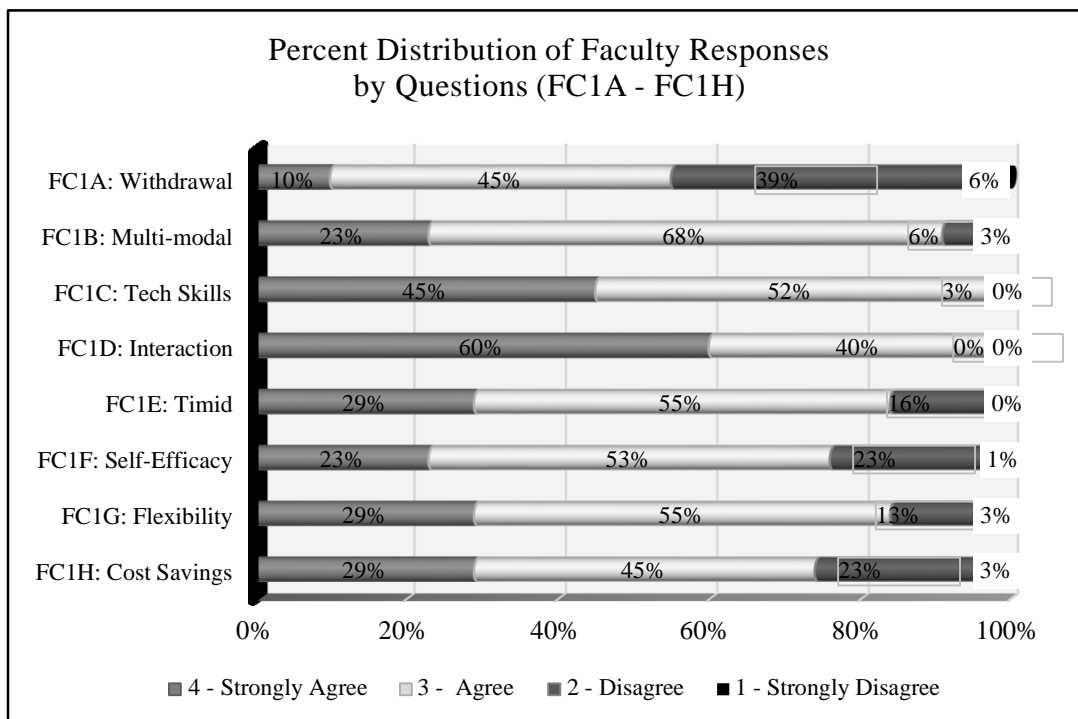
*Faculty CIF (Self-efficacy). Teaching students who are engaged, committed, and motivated to achieving course objectives.* Findings indicated that 76% of faculty agreed or strongly agreed to this statement with only 24% disagreeing or strongly disagreeing. These results indicated that a majority of faculty perceived that hybrid courses do contain

students that are engaged, committed, and motivated to achieving course objectives, which equates to contributing to course effectiveness.

*Faculty CIG (Flexibility). Increased flexibility for faculty, which enables them then to be able to juggle personal, educational, and work-related objectives compared to a lecture course.* Responses indicated that 84% of faculty agreed or strongly agreed to this statement with 16% disagreeing or strongly disagreeing. These results indicated that a majority of faculty perceived that hybrid courses do enable faculty more flexibility than lecture course for juggling personal, educational, and work-related objectives.

*Faculty CIH (Cost Savings). Decreased cost of resources and allows for efficient classroom scheduling.* Findings showed that 74% of faculty agreed or strongly agreed to this statement with 23% disagreeing, and 3% strongly disagreeing. These results indicated that a majority of faculty perceived that hybrid courses do decrease resources cost and help with efficient classroom scheduling.





*Figure 2. Percent Distribution of Faculty Responses by Question (FC1A-FC1H): Hybrid Course Benefits Affecting Course Effectiveness for Faculty.*

Figure 3 represents the percent distribution of faculty responses for survey questions (C2a – C2e) regarding challenges of hybrid courses for faculty that would contribute to a decrease in course effectiveness are symbolized on the table as FC2A – FC2E with the “F” included denoting faculty respondents.

*Faculty C2A (Reduced Access). Reduced access to students compared to a face-to-face class.* Findings indicated 45% of faculty agreed or strongly agreed to this statement with 55% disagreeing or strongly disagreeing. These results indicated that faculty are closely divided on whether hybrid courses do reduce access to students in comparison to face-to-face courses. Between the agree responses of 39% and disagreed responses of 45% there was only a 6% difference favoring disagreement to this question.

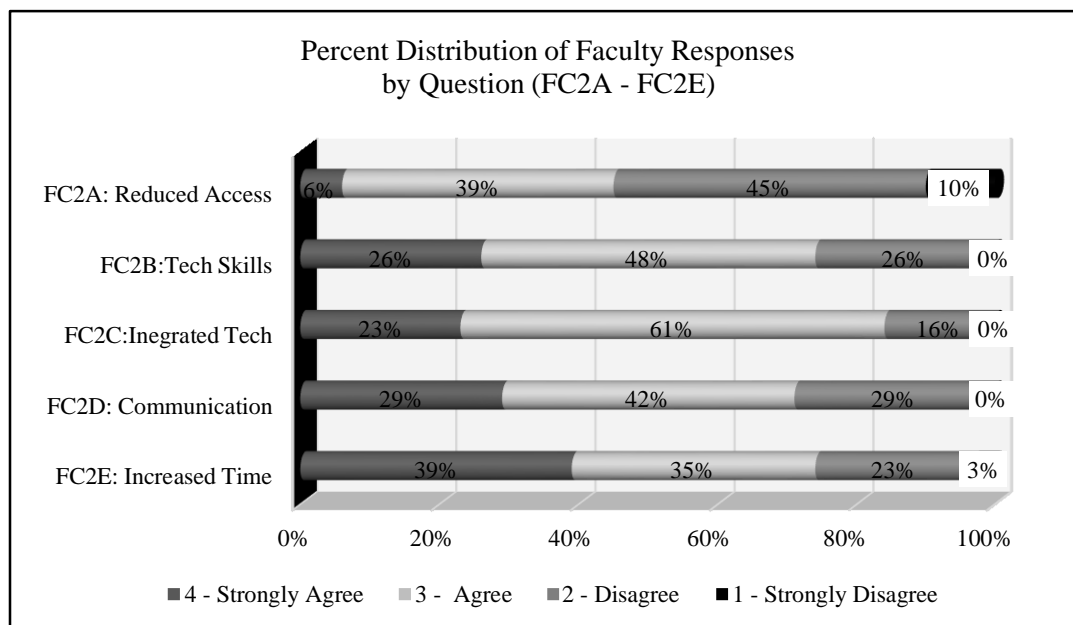
*Faculty C2B (Tech Skills). Increased for faculty technology skills.* Findings indicated that 74% of faculty agreed or strongly agreed to this statement with 26%

disagreeing. These results showed that faculty perceived a need to increase their technological skills to not decrease course effectiveness.

*Faculty C2C (Integrated Tech). Determining which technologies should be integrated into classes.* Results reflected that 84% of faculty agreed or strongly agreed to this statement with 16% disagreeing. These results indicated that faculty perceived that determining which technologies should be integrated into classes was necessary in order to maintain or increase course effectiveness.

*Faculty C2D (Communication). Ineffective communications prior to student enrollment into hybrid courses regarding definitions and expectation of hybrid modality.* Findings showed that 71% of faculty agreed or strongly agreed to this statement with 29% disagreeing. These results indicated that faculty perceived that ineffective communications prior to student enrollment into hybrid courses regarding definitions and expectation did decrease course effectiveness.

*Faculty C2E (Increased Time). Increased time for course development and activity synchronization.* Findings indicated that 74% of faculty agreed or strongly agreed to this statement with 23% disagreeing and 3% strongly disagreeing. These results showed that faculty perceived that increased time for course development and activity synchronization was needed in order to maintain or increase course effectiveness.



*Figure 3. Percent Distribution of Faculty Responses by Question (FC2A-FC2E): Hybrid Course Challenges Affecting Course Effectiveness for Faculty*

Figure 4 represents the percent distribution of faculty responses for survey questions (D1a – D1f) regarding faculty changes in teaching practices are symbolized on the table as FD1A – FD1F with the “F” included denoting faculty respondents.

*Faculty D1A (Organization). Better organized and instructionally proactive.*

Findings indicated that 84% of faculty agreed or strongly agreed to this statement and only 16% disagreed. These results reflected that faculty perceived that becoming more organized and instructionally proactive was a teaching practice they have needed to teach in a hybrid modality.

*Faculty D1B (Increased Tech). Increased time spent in acquiring new*

*technological skills so that they may be able to bridge content with technology.*

Responses indicated that 84% of faculty agreed or strongly agreed to this statement with 13% disagreeing and (3%) strongly disagreeing. These results showed that faculty

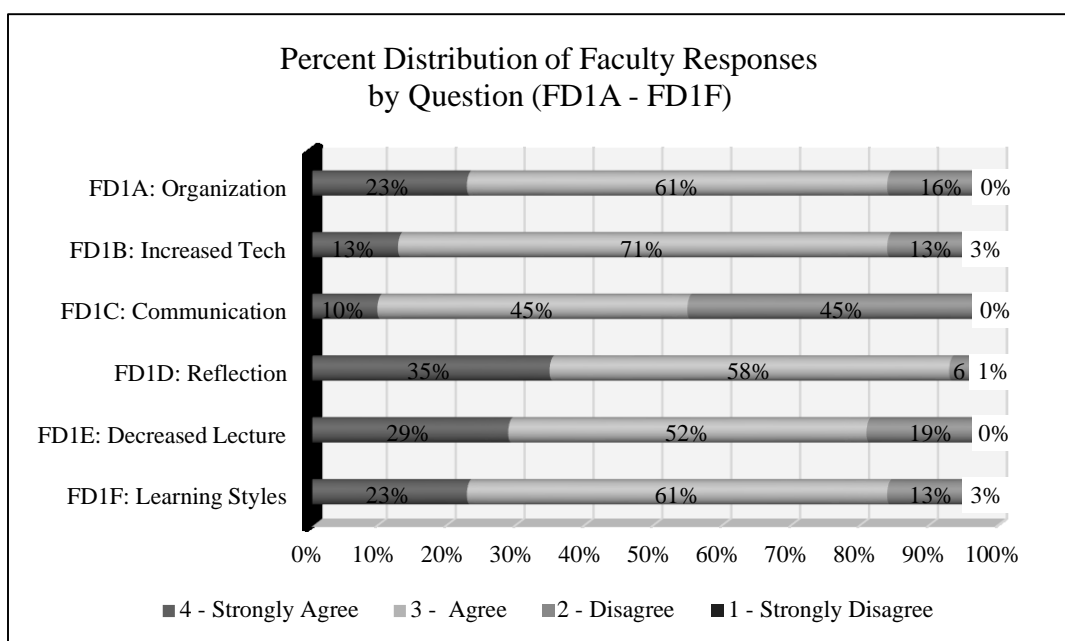
perceived a need to acquire new technological skills into their teaching practices in order to be able to bridge content with technology.

*Faculty DIC (Communication). Spend more time listening, communication, and interacting with students.* Findings indicated that 55% of faculty agreed or strongly agreed to this statement with 45% of the faculty disagreeing or strongly disagreeing to this question. These results showed that faculty perception is somewhat divided on whether hybrid classes required more time interacting and communicating with students than online classes.

*Faculty DID (Reflection). More reflection on activities and techniques faculty will need to incorporate when teaching students face-to-face and online.* Responses indicated that 93% of faculty agreed or strongly agreed to this statement. These results revealed that faculty believe overwhelming that hybrid courses have made them reflect more on the activities and techniques they incorporated when teaching a hybrid course.

*Faculty DIE (Decreased Lecture). Less lecture which allowed more time to coach and facilitate student learning.* Findings indicate that 81% of faculty agreed or strongly agreed to this statement with 19% disagreeing. These results showed that faculty perceived they saved time with less lecture preparation that they could then devote to the learner.

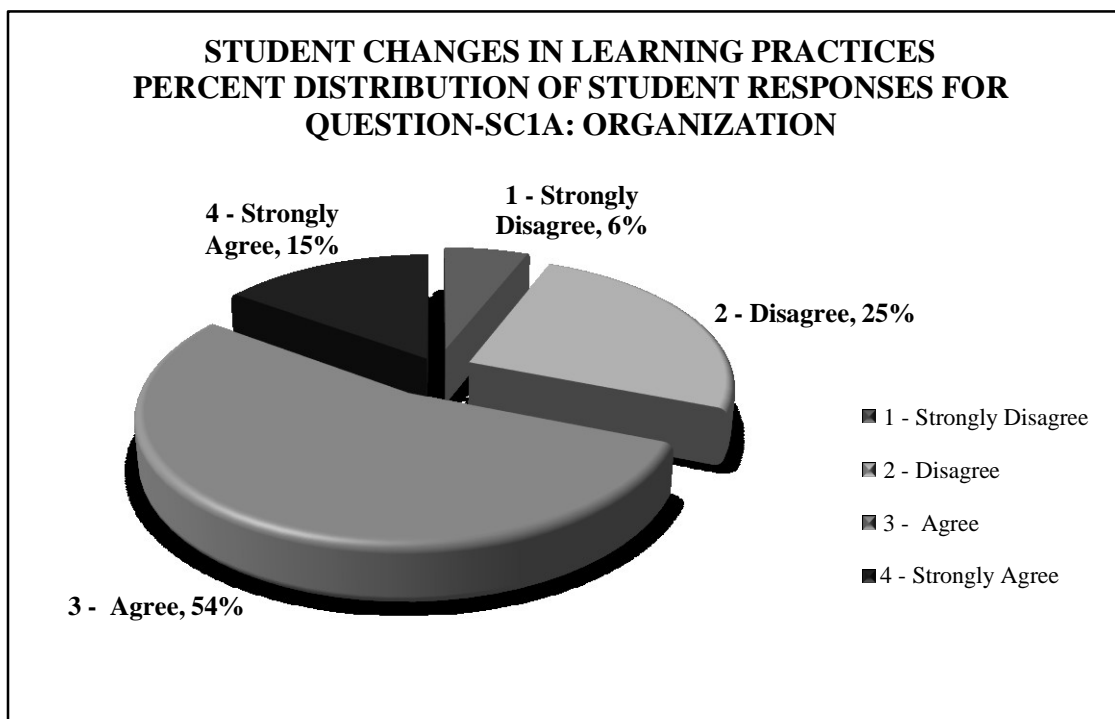
*Faculty DIF (Learning Styles). Continuously looked for ways to accommodate the various learning styles of students.* Findings indicated that 84% of faculty agreed or strongly agreed to this statement with 13% disagreeing and 3% strongly disagreeing. These results reflected that faculty perceived that they looked for ways to accommodate different learning styles.



*Figure 4.* Percent Distribution of Faculty Responses by Question (FD1A-FC1F): Changes in Teaching Practice

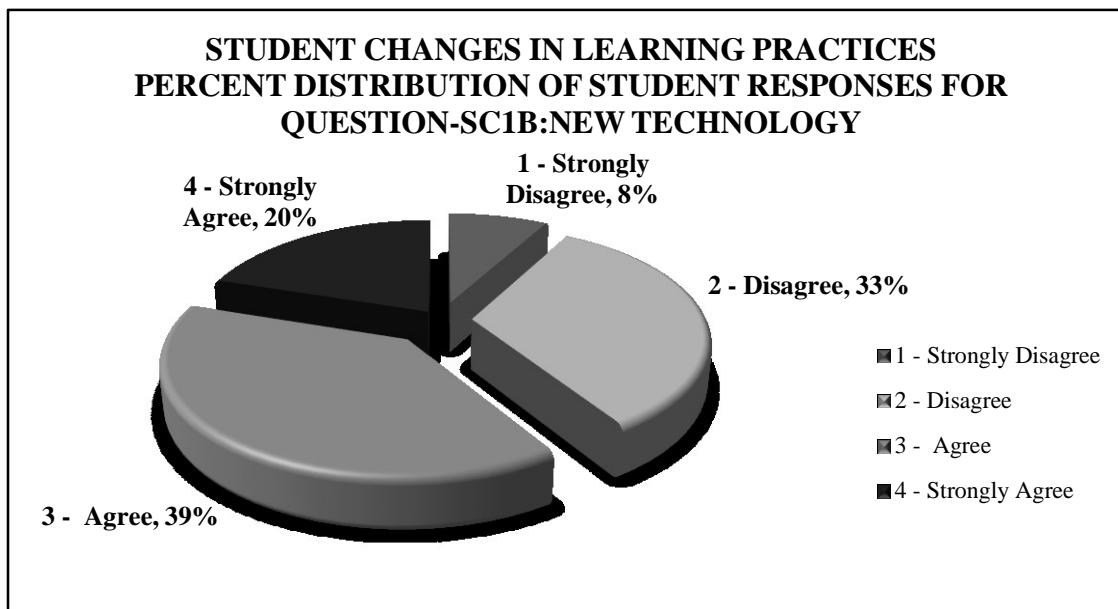
Figures 5 through 7 represent the percent distribution of student responses for survey questions SC1A – SC1C regarding student changes in learning practices are symbolized on the pie charts as SC1A – SC1C with the “S” included to denote student respondents. The results of these figures are shown in pie chart Likert scale format rating consisting of “4 – Strongly Agree”, “3-Agree”, 2-Disagree”, and “1-Strongly Disagree.

*Students CIA (Organization). Become better organized.* Findings indicated that 69% of the students agreed or strongly agreed to this statement and 31% disagreed. These results showed that almost 70% of students perceived that hybrid course have required them to becoming more organized.



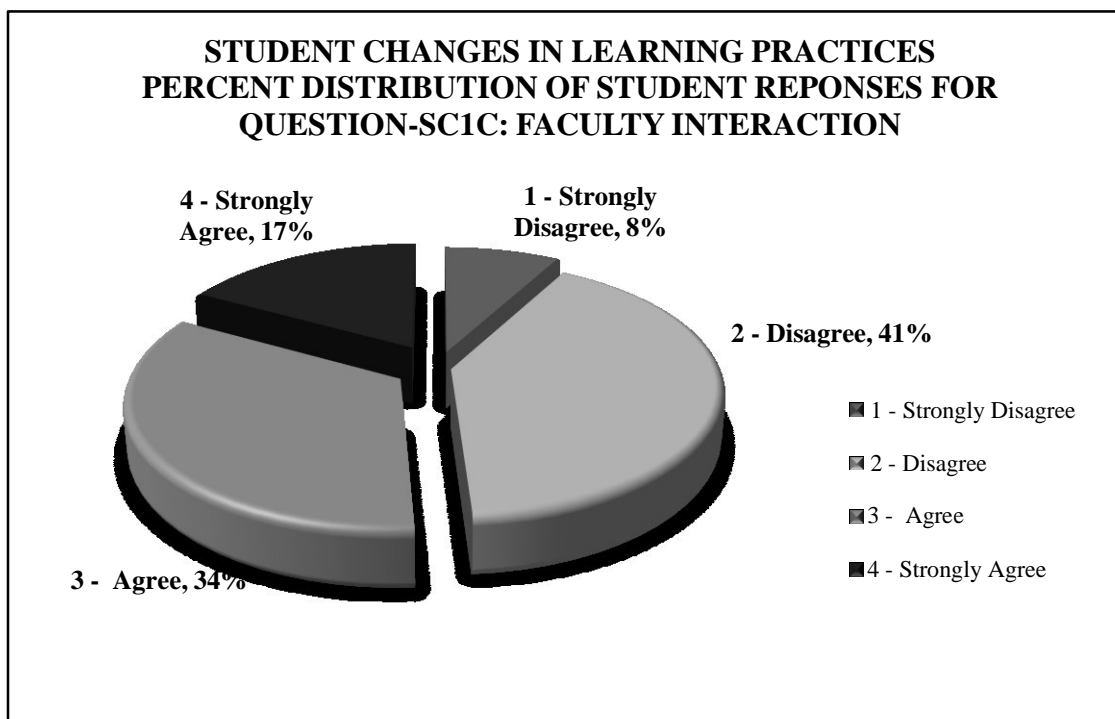
*Figure 5. Percent Distribution of Student Responses for Student Changes in Learning Practices Question SC1A: Organization*

*Students C1B (New Technology). Spent time acquiring new technical skills that allow them to access content.* Findings indicated that 59% of the students agreed or strongly agreed to this statement with 42% disagreeing or strongly disagreeing. These results reflected that students generally agreed that hybrid course changed their learning practices regarding spending time acquiring new technical skills so as to be able to access course content.



*Figure 6.* Percent Distribution of Student Responses for Student Changes in Learning Practices Question SC1B: New Technology

*Students CIC (Faculty Interaction). Spent more time listening, communicating, and interacting with faculty.* Findings showed that 51% of the students agreed or strongly agreed to this statement while 49% disagreed or strongly disagreed. These results indicated that students were almost equally divided regarding whether their learning practices required them to spend more time listening, communicating, and interacting with faculty.



*Figure 7.* Percent Distribution of Student Responses for Student Changes in Learning Practices Question SC1C: Faculty Interaction

*Faculty Section E and Student Section D: Open Ended Questions.* The open-ended questions in Sections E (Faculty) and Section D (Students) addressed a number of different topics. Trends and themes were identified for each question (see Appendices I and J) and comparisons made between faculty and students for corresponding questions.

The trends/themes identified for the faculty and student responses to the question concerning what term “blended or hybrid learning” meant (Faculty E1/Student D1) were flexibility, “best of both worlds,” multi-modal class options, and a disconnect or challenge.

The identified trends/themes for reasons for the decision to teach (faculty) or take (students) a hybrid class (Faculty E2/Student D2) were flexibility, multi-modal (expanded class options), promote student learning, scheduling and availability of



classes, and unknown modality (students didn't realize the class was hybrid until the first day). Primary responses were flexibility and availability.

Additional examples of benefits as course effectiveness factor trends/themes (Faculty E3/Student D2) included some repetition and clarification from quantitative responses and included flexibility, problem solving, access to materials, financial, multi-modality choice, online student service availability, increased student engagement, and student learning.

The trends/themes for possible challenges to students taking hybrid courses that were identified (Faculty E5/Student D5) included class acceleration, communication issues, disability services, financial, scheduling, need for self-efficacy, student engagement, student learning, subject matter, technology, time management, unknown modality, and unrealistic expectations. It was notable that some of these factors can be perceived by faculty and students as both a benefit and a challenge, i.e. flexibility, student engagement, and student learning.

Faculty were asked to share additional examples of hybrid course benefits as course effectiveness factors for faculty that were not included in the survey (Faculty E4). Trends that emerged were accessible information, "best of both worlds," flexibility, student engagement, and updated technology. Trends for examples of hybrid course challenges as course effectiveness factors for faculty (Faculty E6) included administrative support, defining activities, scheduling,, student expectations, technical support, technology, time constraints and training.

Trends/themes identified for how teaching hybrid classes has influenced faculty teaching practice (Faculty E7) included better time management, use of more technology, better organization, responsiveness to students, and time management.

Top factors leading to learner success identified by faculty (Faculty E8) were found in the trend/themes of attendance, multi-modalities, student efficacy, student engagement, time management, and understanding.

Best practices identified by faculty for course effectiveness when teaching blended classes (Faculty E9) were listed in priority order in Appendix J. The top practices included required attendance for the on-campus portion of the course, organization, effective use and maximization of class time, subject knowledge, training, flexibility, clarity of student expectations, deadlines, regular communication, and engaging in-class activities.

Faculty identified recommendations for strategic implementation of best practices for course effectiveness when teaching in a blended classroom (Faculty E10).

Organization. Preparation, student support, training flexible assignment schedule, technology knowledge for students, required course orientation module, faculty support, and clearly stated objectives before students enroll were among the recommendations.

Students were asked to share examples of how taking hybrid courses influenced their learning practices (Student D6). Trends/themes that emerged from their responses were critical thinking, flexibility, change in learning style, modality choices, increased organization skills, increased self-efficacy, more or differing student engagement, increased student learning, and increased technology and time management skills.

## Summary

Chapter Four included the analysis of attitudes of faculty and students regarding factors that may increase course effectiveness and challenges that may decrease course effectiveness. The quantitative data obtained from two web surveys, one for faculty, and one for students regarding course effectiveness factors were analyzed through descriptive and inferential statistics. The  $t$  test independent two-sample assuming unequal variances was used for Section B: Hybrid Course Benefits and Challenges affecting Course Effectiveness for Students to acquire inferential statistical data. The  $t$  test used distribution of sample means to determine if significant differences existed between mean scores (De Winter, 2013).

Data collection and analysis addressed the hypothesis: There is a significant difference between faculty and students' attitudes of the factors that may increase course effectiveness for students of blended learning classes. Twelve independent  $t$  tests were conducted comparing faculty and student levels of agreement regarding the benefits of hybrid courses for students that would contribute to an increase in course effectiveness for students.

The null hypothesis was rejected for six factors, which meant there was a difference in faculty and student responses. Although the majority of both faculty and students agreed or strongly agreed that five of the factors could increase course effectiveness (B1A: Increased Flexibility, B1C: Enhanced Time Management, B1E: Greater Instructor Access, B1G: Interactive Learning Materials that Accommodate Learning Styles, and B1K: Optimized Face-To-Face Class Time), up to 20 percent of the students either disagreed or strongly disagreed that these factors would increase course

effectiveness. Faculty disagreeing or strongly disagreeing with the effect of these five factors was minimal. For factor B1L: Student Success Measured by Withdrawal Rates, faculty were split evenly as to whether the factor would increase course effectiveness; however, the majority of the students agreed or strongly agreed that this factor would increase course effectiveness rates.

The null hypothesis was not rejected for the other six factors, which meant that there was no significant difference in faculty and student responses. The majority of participating faculty and students agreed or strongly agreed that the factors of B1B: Critical Thinking and Problem Solving Skills, B1D: Enhanced Computer Skills, B1F: Students Manage and Monitor Their Progress, B1H: Timid Students' Course Participation, B1I: Student Access to Pre-Recorded Materials, and B1J: Present Ideas within the Privacy of Their Homes, would increase course effectiveness. A higher percentage of students disagreed or strongly disagreed that B1H: Student Access to Pre-Recorded Materials and B1J: Present Ideas within the Privacy of Their Homes would increase course effectiveness. The null hypothesis was rejected for one factor, B2A: Reduced Access to the Instructor, which meant there was a difference in faculty and student responses. The majority of the faculty disagreed or strongly disagreed that the factor of reduced access to the instructor compared to a face-to-face class would be a challenge that may decrease course effectiveness. However, the responses of the participating students were split, with more agreeing or strongly agreeing that reduced access to an instructor compared to a face-to-face class would be a challenge that may decrease course effectiveness.

The null hypothesis was not rejected for the remaining three factors, B2B: Increased Need for Student Technology Skills, B2C: Greater Campus Service and Activities Disconnect, and B2D: Ineffective Communication Prior to Enrollment, which mean that there was not a significant difference in the responses of faculty and student concerning their perception of the factors. The majority of the faculty and students agreed or strongly agreed that factors B2B: Increased Need or Student Technology Skills and B2D: Ineffective Communication Prior to Enrollment were challenges that would decrease course effectiveness for students. Most of the faculty and students disagreed and strongly disagreed that factor B2C: Greater Campus Service and Activities Disconnect would be a challenge that would decrease course effectiveness for students, but the percentages for disagreement were higher from the student perspective.

Four independent t tests were conducted comparing faculty and student levels of agreement regarding the challenges of hybrid courses for students that would contribute to a decrease in course effectiveness for students. A percentage distribution of faculty responses was calculated for each question in Sections C: Hybrid Course Benefits and Challenges Affecting Course Effectiveness for Faculty (see Figures 2 and 3) and D: Faculty Changes in Teaching Practices (see Figure 4) from the faculty survey. The percentage distribution was also calculated for student responses.

The top benefits affecting course effectiveness for faculty as perceived by faculty was increased interaction with students (Faculty C1D) compared to an online class with 100% of the faculty agreeing or strongly agreeing. Over 90% of the faculty also agreed or strongly agreed that self-paced and flexible instruction (Faculty C1B) and the acquisition of technology skills (Faculty C1C) increase course effectiveness for faculty. The top

challenge for faculty that may decrease their course effectiveness was perceived to be determining technologies to be integrated into the class (Faculty C2C) with 84% agreeing or strongly agreeing. The primary change in Faculty teaching styles for blended classes was that was perceived by faculty with 93% agreeing or strongly agreeing, was becoming more reflective about activities and techniques used in class. The students' perceived change in learning practices from taking blended classes indicated that most agreed or strongly agreed (69%) that they were better organized.

The open-ended questions in Sections E (Faculty) and Section D (Students) addressed a number of different topics and provided additional information not related to the research questions. Trends and themes were identified for each question (see Appendices I and J) and comparisons made between faculty and students for corresponding questions.

Chapter Five includes a summary of the study, a discussion of the findings, implications for faculty and students, recommendations for further research, and conclusions.

## **Chapter 5: Implications, Recommendations, and Conclusions**

The findings and results were presented in Chapter Four. Chapter Five includes a summary of the study, a discussion of the findings, implications for faculty and students, recommendations for further research, and conclusions.

The purpose of this quantitative methodology research study was to examine attitudes of faculty and students regarding factors that may increase course effectiveness and challenges that may decrease course effectiveness. Secondly, there was the opportunity to identify best practices and a strategic approach in developing blended courses that promote quality higher education instruction and learner success as perceived by both the students and the faculty at a large community college in the Southwestern United States.

The problem addressed in this study was that faculty and students' perceived factors for possible increased course effectiveness and their perceived challenges for possible decreased course effectiveness had not been previously identified and then compared and contrasted. Filling this gap with this specific knowledge may allow educators to more purposefully and strategically plan curriculum and increase student success through integrating the combined perceived course effectiveness characteristics and addressing challenges (Baker, 2007; Duckworth, 2010; Gebara, 2007, Gonzalez-Castillo, 2008, Tung, 2007).

The significance of the study was to determine perceptions of faculty and students concerning the relevant factors that may contribute to an increase in course effectiveness and challenges that may contribute to a decrease in course effectiveness in the blended classroom and to determine if there is a significant difference between faculty and

students' perceptions of these factors and challenges. Secondly, the significance was to discover suggested best practices for the college, and to discover potential strategies that can be implemented to increase learner success. There was a comparison of faculty and adult students from the blended class modality. Additional data obtained from the open-ended questions in Section E for faculty and Section D for students were analyzed for trends as they applied to community college faculty teaching blended classes and students taking blended classes.

### **Implications**

The four research questions that were guiding this study are included in this section:

**Research Question 1: What are attitudes of faculty and students towards factors that may increase course effectiveness of blended classes?** Faculty and students responded to twelve statements regarding levels of agreement concerning the benefits of hybrid courses for students that would contribute to an increase in course effectiveness for students in Section B1: Hybrid Course Benefits Affecting Course Effectiveness for Students of both web surveys. Additional data was gathered through open-ended questions in Section E in the faculty survey and Section D in the student survey, asking the participants to share any additional examples of hybrid course benefits as course effectiveness factors that were not included in the survey.

Although the majority of both faculty and students agreed or strongly agreed that five of the factors could increase course effectiveness (Increased Flexibility, Enhanced Time Management, Greater Instructor Access, Interactive Learning Materials that Accommodate Learning Styles, and Optimized Face-To-Face Class Time), up to 20



percent of the students either disagreed or strongly disagreed that these factors would increase course effectiveness. Faculty disagreeing or strongly disagreeing with the effect of these five factors was minimal. For the factor of Student Success Measured by Withdrawal Rates, faculty were split evenly as to whether the factor would increase course effectiveness; however, the majority of the students agreed or strongly agreed that this factor would increase course effectiveness rates.

Faculty and student responses were similar for the other factors that may contribute to course effectiveness for students. The majority of participating faculty and students agreed or strongly agreed that the factors of Critical Thinking and Problem Solving Skills, Enhanced Computer Skills, Students Manage and Monitor Their Progress, Timid Students' Course Participation, Student Access to Pre-Recorded Materials, and Ability to Present Ideas within the Privacy of Their Homes, would increase course effectiveness. A higher percentage of students disagreed or strongly disagreed that Student Access to Pre-Recorded Materials and Present Ideas within the Privacy of Their Homes would increase course effectiveness.

Trends and themes for additional examples of benefits as course effectiveness factors identified in the open-ended questions (Faculty E3/Student D2) included some repetition and clarification from quantitative responses. Responses included flexibility, problem solving, access to materials, financial, multi-modality choice, online student service availability, increased student engagement, and student learning. Of these, flexibility, increased student engagement, and student learning were listed the most often.

Through the literature review, purposeful planning (Tung, 2007) and the need for student engagement were identified (Swiderski, 2009; Weimer, 2009; Young, M., 2010).

Both faculty and student open-ended responses included the benefits of organization and purposeful planning for blended classes. Student-to-student and student-faculty engagement were also identified as important factors to both faculty and students.

Instructional design based on pedagogical needs was emphasized in the literature review, with a focus on multimodalities and the need for critical thinking skills (Campbell, 2010; Picciano, 2009). The effective use of instructional technology for faculty and students was also addressed (Bigatel, P., Ragan, L. Kennan, S., May, J., & Redmond, B., 2012; Dabbagh, 2007; Gebara, 2010; Picciano, 2009; Restine, 2008; Tabar-Gaul, 2008). Student and faculty survey responses agreed with the necessity of addressing these areas and perceived an impact on course effectiveness.

**Research Question 2: Is there a difference in the attitudes of faculty and students regarding factors that may increase course effectiveness for students of blended classes?** Twelve independent *t* tests were conducted comparing faculty and student levels of agreement regarding the benefits of hybrid courses for students that would contribute to an increase in course effectiveness for students for Section B1: Hybrid Course Benefits Affecting Course Effectiveness for Students of both web surveys.

The results for research question two, that addressed this comparison of factors, were split depending on the course effectiveness factor being addressed. Data collection and analysis addressed research question two,  $H_{10}$ . There was no significant difference between faculty and students' attitudes of the factors that may increase course effectiveness for students of blended learning classes.

The null hypothesis was rejected for six factors, which meant there was a difference in faculty and student responses. The factors addressed that could increase

course effectiveness were Increased Flexibility, Enhanced Time Management, Greater Instructor Access, Interactive Learning Materials that Accommodate Learning Styles, Optimized Face-To-Face Class Time, and Student Success Measured by Withdrawal Rates

The null hypothesis was not rejected for the other six factors, which meant that there was no significant difference in faculty and student responses. The majority of participating faculty and students agreed or strongly agreed that the factors of Critical Thinking and Problem Solving Skills, Enhanced Computer Skills, Students Manage and Monitor Their Progress, Timid Students' Course Participation, Student Access to Pre-Recorded Materials, and Present Ideas within the Privacy of Their Homes, would increase course effectiveness. A higher percentage of students disagreed or strongly disagreed that Student Access to Pre-Recorded Materials and Present Ideas within the Privacy of Their Homes would increase course effectiveness.

Blended learning is affecting the way students and faculty interface (Manning, 2010; Sloan-C, 2009; U.S. Department of Education, 2010). Educators must gain a better understanding of the blended learning pedagogy needed to ensure success in this specific environment including the importance of identifying blended learning success factors (Bigatel, P., Ragan, L. Kennan, S., May, J., & Redmond, B., 2012; Campbell, 2010; Churches, 2009; Duckworth, 2010; Gebara, 2010; MLE, 2009; Munson, 2010; Picciano, 2009; Smith, B., 2010). Examining the attitudes of community college faculty members and students regarding blended learning and factors that contribute to course effectiveness can offer insight into best practices for success (Gonzalez-Castillo, 2008).

Dr. Gonzalez' study (2008) examined the attitudes of faculty concerning benefits and factors that may increase course effectiveness, but no studies were found that explored the perceptions of both faculty and students and then compared the results. The results from this study, then, could help contribute to a better understanding of the similarities and differences between faculty and student perceived benefits that may increase course effectiveness.

**Research Question 3: What are attitudes of faculty and students towards challenges that may decrease course effectiveness in a blended classroom environment?** Faculty and students responded to four statements regarding levels of agreement concerning the challenges of hybrid courses for students that would contribute to a decrease in course effectiveness for students in Section B2: Hybrid Course Challenges Affecting Course Effectiveness for Students of both web surveys. Additional data was gathered through open-ended questions in Section E in the faculty survey and Section D in the student survey, asking the participants to share any additional examples of possible hybrid course challenges that could decrease course effectiveness factors that were not included in the survey.

The results were split depending on the course effectiveness factor being addressed. Overall, there was no significant difference between faculty and students' attitudes of the factors that may decrease course effectiveness for students of blended learning classes.

There was a difference in faculty and student responses for one factor, Reduced Access to the Instructor. The majority of the faculty disagreed or strongly disagreed that the factor of reduced access to the instructor compared to a face-to-face class would be a

challenge that may decrease course effectiveness. However, the responses of the participating students were split, with more agreeing or strongly agreeing that reduced access to an instructor compared to a face-to-face class would be a challenge that may decrease course effectiveness.

There was not a significant difference in the responses of faculty and students concerning their perceptions for the remaining three factors, Increased Need for Student Technology Skills, Greater Campus Service and Activities Disconnect, and Ineffective Communication Prior to Enrollment. The majority of the faculty and students agreed or strongly agreed that factors Increased Need or Student Technology Skills and Ineffective Communication Prior to Enrollment were challenges that would decrease course effectiveness for students. Most of the faculty and students disagreed and strongly disagreed that factor Greater Campus Service and Activities Disconnect would be a challenge that would decrease course effectiveness for students, but the percentages for disagreement were higher from the student perspective.

Trends and themes for additional examples of challenges that may decrease course effectiveness identified in the open-ended questions (Faculty E3/Student D2) included some repetition and clarification from quantitative responses. Challenges included class acceleration, communication issues, disability services, financial, scheduling, need for self-efficacy, student engagement, student learning, subject matter, technology, time management, unknown modality, and unrealistic expectations. Of these, the primary perceived challenges were technology, need for student self-efficacy, student engagement, time management, and unrealistic expectations. It was notable that some of

these factors can be perceived by faculty and students as both a benefit and a challenge, i.e. flexibility, student engagement, and student learning.

Technology issues was identified as one of the primary challenges for faculty and students within the survey. Administrators must be proactive in preparing faculty to work effectively with the technology in a virtual environment (Tabar-Gaul, 2008). In addition to allocating resources to build an infrastructure for instructional technologies, she emphasized the need to hire and train faculty to become effective online facilitators. This proactive preparation for technology integration also applies to educators in a blended and traditional classroom environment. For students, it is necessary to educate the entire learning community on the existence and availability of technology support services (Collins, 2007).

The need for increased student-efficacy was another challenge that was identified by both faculty and students. Providing opportunities to help learners gain confidence in decision-making and enable them to demonstrate self-efficacy by following through on those decisions can address this challenge. Theorists believe the *constructivist-learning model* (CLM) to be a successful learning model (Tabar-Gaul, 2008). Following a student-centered model, CLM students are actively engaged in their learning goals, and they acquire knowledge through their active-learning and problem-solving skills; the teacher becomes the coach and mentor (Tabar-Gaul, 2008). The research suggests integrating emerging learner-centered technologies with a focus on increased critical-thinking skills, such as communication, analysis, collaboration, and decision-making as essential to expand learners' worldview and to prepare them to be

tomorrow's leaders (Churches, 2009; Held, 2009; MLE, 2009). Applying these techniques can possibly address many of the challenges identified by faculty and students, thus increasing course effectiveness.

**Research question 4: Is there a difference in attitudes of faculty and students regarding challenges that may decrease course effectiveness for students of blended classes?** Four independent *t* tests were conducted comparing faculty and student levels of agreement regarding the challenges of hybrid courses for students that would contribute to a decrease in course effectiveness for students for Section B2: Hybrid Course Challenges Affecting Course Effectiveness for Students of both web surveys

The results for research question four, that addressed this comparison of factors, were split depending on the course effectiveness factor being addressed. Data collection and analysis addressed H<sub>20</sub>: There was no significant difference between faculty and students' attitudes of the challenges that may decrease course effectiveness for students of blended learning classes.

The null hypothesis was rejected for one factor, Reduced Access to the Instructor, which meant there was a difference in faculty and student responses. The majority of the faculty disagreed or strongly disagreed that the factor of reduced access to the instructor compared to a face-to-face class would be a challenge that may decrease course effectiveness. However, the responses of the participating students were split, with more agreeing or strongly agreeing that reduced access to an instructor compared to a face-to-face class would be a challenge that may decrease course effectiveness.

The null hypothesis was not rejected for the remaining three factors, Increased Need for Student Technology Skills, Greater Campus Service and Activities Disconnect,

and Ineffective Communication Prior to Enrollment, which meant that there was not a significant difference in the responses of faculty and students concerning their perception of the factors. The majority of the faculty and students agreed or strongly agreed that factors Increased Need for Student Technology Skills and Ineffective Communication Prior to Enrollment were challenges that would decrease course effectiveness for students. Most of the faculty and students disagreed and strongly disagreed that factor Greater Campus Service and Activities Disconnect would be a challenge that would decrease course effectiveness for students, but the percentages for disagreement were higher from the student perspective.

Challenges to learning and course effectiveness are inevitable for both faculty and students. Some challenges that were identified through the survey responses and identified through literature to be explored included reduced access to the instructor compared to a face-to-face course, increased need for student technology skills, a greater disconnect with on-campus services and activities, and ineffective communication prior to enrollment concerning definitions and expectations of hybrid modality (Greenberg, 2010). Held (2009) recognized the challenges of teaching in a blended learning environment and recommended further study of the learners' perceptions and general needs for blended learning and related effective teaching practices in higher learning. With the increasing number of blended classes offered at the participating college, a possible opportunity existed to influence the purposeful planning of blended classes to best meet students' needs through identifying both faculty and students' perceived course effectiveness factors and challenges and determining if there is a significant difference in their perceptions (Tung, 2007). Filling this gap with this specific knowledge may allow



educators to more purposefully and strategically plan curriculum and increase student success through integrating the combined perceived course effectiveness characteristics and addressing challenges (Baker, 2007; Duckworth, 2010; Gebara, 2007, Gonzalez-Castillo, 2008, Tung, 2007).

As indicated earlier, faculty and administration must also evaluate the effects, challenges, and outcomes of instructional use when integrating the technology into the curriculum (Johnson, Smith, Willis, Levin, & Hayward, 2011; Picciano, 2006). Jamie McKenzie accurately indicated this same caution in the article, *Stuffing Technology into the Curriculum* (2004). He emphasized the need to find convincing evidence and its associated value for each technology used. In another of his publications, McKenzie provided a list of questions of decision makers and stakeholders to ask before implementing technology to ensure focus on learning objectives, not the tools. The criteria included asking if the integrated activity will be (a) efficient, (b) reliable (c) complete and thorough, (d) coherent, and (e) effective (2003).

Planning and preparation for online learning should incorporate three categories of instructional challenges: (a) integrating technology, (b) retaining well-trained and competent instructors, and (c) achieving organizational effectiveness (Waterhouse, 2005). The mentioned strategy applies to integrating technology into a traditional and blended classroom as well. Ultimately, the decision to overcome the challenges and to strive toward an effective, positive computer culture while meeting or exceeding the technology integration best practices resides within the educator, remembering the final impact will be on the students (Picciano, 2006).

As indicated when reviewing the perceptions of faculty and students concerning benefits that may increase course effectiveness, Dr. Gonzalez' study (2008) examined the attitudes of faculty concerning benefits and factors that may increase course effectiveness. However, no studies were found that explored the perceptions of both faculty and students regarding challenges that may decrease course effectiveness for students then compared the results. The results from this study, then, could help contribute to a better understanding of the similarities and differences between faculty and student perceived challenge that may decrease course effectiveness and suggest ways to address the challenges.

Faculty and student information was gathered to provide data that could be used for additional planning tools. A percentage distribution of faculty responses was calculated for each question in Sections C: Hybrid Course Benefits and Challenges Affecting Course Effectiveness for Faculty and D: Faculty Changes in Teaching Practices from the faculty survey. The survey tool used Likert scale rating form consisting of "4 – Strongly Agree", "3-Agree", "2-Disagree", and "1-Strongly Disagree". The percentage distribution of the same Likert scale rating was also calculated for student responses for each question in Section C: Student Changes in Learning Practices in the student survey.

The top benefits affecting course effectiveness for faculty as perceived by faculty was increased interaction with students compared to an online class with 100% of the faculty agreeing or strongly agreeing. Over 90% of the faculty also agreed or strongly agreed that self-paced and flexible instruction and the acquisition of technology skills increase course effectiveness for faculty. The top challenge for faculty that may decrease their course effectiveness was perceived to be determining technologies to be integrated

into the class with 84% agreeing or strongly agreeing. The primary change in Faculty teaching styles for blended classes was that was perceived by faculty with 93% agreeing or strongly agreeing, was becoming more reflective about activities and techniques used in class. The students' perceived change in learning practices from taking blended classes indicated that most agreed or strongly agreed (69%) that they were better organized.

The open-ended questions in Sections E (Faculty) and Section D (Students) addressed a number of different topics. Trends and themes were identified for each question (see Appendices I and J) and comparisons made between faculty and students for corresponding questions.

The trends/themes identified for the faculty and student responses to the question concerning what term "blended or hybrid learning" meant were flexibility, "best of both worlds," and multi-modal class options. The identified trends/themes for reasons for the decision to teach (faculty) or take (students) a hybrid class were flexibility, multi-modal (expanded class options), promote student learning, scheduling and availability of classes, and unknown modality (students didn't realize the class was hybrid until the first day). Primary responses for both faculty and students were flexibility and availability or scheduling.

Faculty were asked to share additional examples of hybrid course benefits as course effectiveness factors for faculty that were not included in the survey. Trends that emerged were accessible information, "best of both worlds," flexibility, student engagement, and updated technology. Trends for examples of hybrid course challenges as course effectiveness factors for faculty included administrative support, defining

activities, scheduling, student expectations, technical support, technology, time constraints, and training.

Trends/themes identified for how teaching hybrid classes has influenced faculty teaching practice included better time management, use of more technology, better organization, responsiveness to students, and time management. Top factors leading to learner success identified by faculty were found in the trend/themes of attendance, multi-modalities, student efficacy, student engagement, time management, and understanding.

Best practices identified by faculty for course effectiveness when teaching blended classes were listed in priority order in Appendix J. The top practices included required attendance for the on-campus portion of the course, organization, effective use and maximization of class time, subject knowledge, training, flexibility, clarity of student expectations, deadlines, regular communication, and engaging in-class activities. Faculty identified recommendations for strategic implementation of best practices for course effectiveness when teaching in a blended classroom. Organization, preparation, student support, training, flexible assignment schedule, technology knowledge for students, required course orientation module, faculty support, and clearly stated objectives before students enroll were among the recommendations.

Students were asked to share examples of how taking hybrid courses influenced their learning practices. Trends/themes that emerged from their responses were critical thinking, flexibility, change in learning style, modality choices, increased organization skills, increased self-efficacy, more or differing student engagement, increased student learning, and increased technology and time management skills.

As indicated through addressing the research questions, although some data were available in prior research for faculty and student perceptions of possible benefits and challenges and the effect on course effectiveness factors, no study comparing faculty and student perceptions was found. This study, *Blended Learning in Higher Education: Comparison of Faculty and Student Attitudes*, was able to identify, compare and contrast the faculty and student perspectives and assumptions concerning the benefits and factors that may increase and challenges that may decrease course effectiveness. In addition, further possible best practices for blended learning and implementation strategies were identified.

### **Recommendations**

This study was exploratory and evaluative and only began to examine the perceptions of faculty and students concerning the benefits and factors that can increase and challenges that can decrease course effectiveness in the blended modality. With blended course offerings continuing to increase at the participating community college, as well as other colleges in the college's district it is recommended that further studies be completed on a regular basis. Student demographics are changing and students are become more tech savvy, which may impact their future educational needs. Further studies should also take into account the timing of the study and not gather data during the holidays or when faculty and students are preparing for final exams and projects.

The need for student self-efficacy was noted by both faculty and students. Additional resources to aid students in completing cognitive self-evaluations and suggestions for growth should be provided.

Further training and technology support for faculty and students were specific needs that were identified. A recommendation for the participating college is that these factors should be addressed through the E-Learning committee and administration at the college. In addition, an effective communication tool is needed to help students understand when a class is hybrid before the first day, as well as set realistic expectations for students (i.e. not just less time in class).

A more detailed study should also be completed to compare faculty and student responses to their demographic data including blended learning training received, the number and percentage of blended classes taught or taken, as well as general demographics such as gender and age.

Where differences in perceptions between faculty and students do exist, further study including interviews and focus groups should be conducted to better determine the reasons for the variances.

A closer look at benefits that may increase course effectiveness for faculty and challenges that may decrease course effectiveness for faculty should also occur. Further training and technology support were specific needs that were identified. In addition, further studies on the development and implementation of blended class best practices are recommended.

For this specific study, the findings will be shared with the blended learning faculty, the college's center for teaching and learning, and administration.

## Conclusions

Through addressing the research questions, the objectives for this quantitative, exploratory and evaluative study were achieved: (a) reviewing and exploring existing blended learning models through a literature review to gain further theoretical knowledge in this area; (b) adding to the existing literature collection and scholarly research in the area of blended learning and its effect on teaching and learning; (c) conducting surveys of faculty and students in blended classes at a two-year community college; (d) compiling, analyzing, and evaluating data from the study using a quantitative research method; (e) identifying and comparing the course effectiveness factors from the perspectives of faculty and students in blended classes; (f) compiling a list of best practices for strategic implementation for blended learning from the summarized findings; (g) identifying and reporting to faculty ways to incorporate the identified success factors purposefully and strategically to enhance student learning; and (h) identifying any gaps between the students' perspectives, faculty assumptions, and current literature about the purpose, strategies, and characteristics of quality instruction leading to blended learner success.

Blended course offerings are continuing to increase at the participating community college, in the college's district of ten colleges, as well as other institutions of higher learning. There is a pedagogical benefit to identifying, and listening to both faculty and students' perceptions concerning the benefits that can possibly increase course effectiveness and challenges that can possibly decrease course effectiveness.

The current study found significant differences in the importance that faculty and students gave to the following factors that could increase course effectiveness: Increased Flexibility, Enhanced Time Management, Greater Instructor Access, Interactive Learning

Materials that Accommodate Learning Styles, Optimized Face-To-Face Class Time, and Student Success Measured by Withdrawal Rates. Although the majority of both faculty and students agreed or strongly agreed that five of the factors could increase course effectiveness, up to 20 percent of the students either disagreed or strongly disagreed that these factors would increase course effectiveness. Faculty disagreeing or strongly disagreeing with the effect of these five factors was minimal. For the factor of Student Success Measured by Withdrawal Rates, faculty were split evenly as to whether the factor would increase course effectiveness; however, the majority of the students agreed or strongly agreed that this factor would increase course effectiveness rates.

There was also a difference in faculty and student responses for one factor, Reduced Access to the Instructor. The majority of the faculty disagreed or strongly disagreed that the factor of reduced access to the instructor compared to a face-to-face class would be a challenge that may decrease course effectiveness. However, the responses of the participating students were split, with more agreeing or strongly agreeing that reduced access to an instructor compared to a face-to-face class would be a challenge that may decrease course effectiveness.

Although significant differences may not exist between faculty and students for some of the challenges, all challenges included in the quantitative section of the survey should be addressed. They include Increased Need for Student Technology Skills, Greater Campus Service and Activities Disconnect, and Ineffective Communication Prior to Enrollment. In addition, the challenges that were identified in the supplemental open-ended questions should also be addressed, specifically the primary perceived challenges



of technology issues, need for student self-efficacy, student engagement, time management, and unrealistic expectations by students.

Many of the factors identified, if addressed, could increase the course effectiveness, satisfaction, retention and completion, and ultimately, successful student learning in the blended class modality.

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## Appendices

Appendix A: Permission to use Dr. Gonzalez-Castillo's 2008 Online Hybrid Course

Effectiveness Questionnaire

## Request for Permission to use Hybrid Course Effectiveness Questionnaire

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C O MMUNITY  
COL L E G  
S'

Oeh Fells<debdt83701@mesacc.edu>

---

### Request Permission to use your Hybrid Course Effectiveness Questionnaire in my doctoral studies

---

Oeh Fells <deb.fells@mesacc.edu>

Thu, Jan 31, 2013 at 9:26 PM

Reply-To: deb.fells@mesacc.edu

To: dcastillo@houston.rr.com, diana.castillo@hccs.edu

Dr. Castillo

I am currently a doctoral student at Northcentral University in the Education program. I respectfully request permission to use your *Hybrid Course Effectiveness Questionnaire* as part of my doctoral research. I would like to use it to survey the faculty at Mesa Community College (MCC). I would also appreciate permission to adapt your questionnaire to survey students at the same institution to provide a comparison of perspectives. I have been teaching both hybrid and online modalities in the Business and Information Systems Department at MCC for a number of years.

Mesa Community College serves over 40,000 students annually and is one of the largest of ten community colleges in the Maricopa Community College District (<http://www.mesacc.edu/about>). The number of hybrid sections offered at MCC is growing each semester, and I believe the information gathered from the questionnaires would be beneficial in planning for faculty and student success.

I appreciate your consideration of my request for both the use of the current questionnaire for faculty and the adaptation for use with students. I would, of course, ensure you were given proper credit for all materials. If you are interested in my findings, I would be glad to provide them to you.

If you have any questions, please email me or call me at 480-200-1715 (my cell).

I am looking forward to hearing from you soon.

Thank you,

Respectfully submitted,  
Deb Fells

*Deb Fells*, MAO.M., ABO  
Residential Faculty/CIS105 Coordinator  
Business and Information Systems  
Mesa Community College  
1833 W. Southern Ave., BP032  
Mesa, AZ 85202  
p. 480.461.7754 (fall/spring semesters)  
web: <http://www.mesacc.edu/~debdl83701>  
email: [deb.fells@mesacc.edu](mailto:deb.fells@mesacc.edu)  
CIW: <http://www.ciwcertified.com>

## Permission Granted to Use Hybrid Course Effectiveness Questionnaire

IUA ICOP A  
C O MMUNITY  
COLL 'G S'

Oeh Fells<debd83701@mesJcr.edu>

---

### Request Permission to use your Hybrid Course Effectiveness Questionnaire in my doctoral studies

---

diana.castillo <diana.castillo@hccs.edu>  
To: "deb.fells@mesacc.edu" <deb.fells@mesacc.edu>

Wed, Feb 6, 2013 at 11:39 AM

Hello Ms. fells,

I am delighted that you are doing further research. Yes, you may use and modify the questionnaire as needed. I am very much interested in your findings, once you have concluded your study.

Good luck. My personal email is dianablueskies@gmail.com

*Diana*

Diana Castillo, Ed.D.  
College Operations Officer  
Coleman College for Health Sciences  
1900 Pressler  
Hovston, Texas 77030  
713-718-7212, office  
832-567-5386, cell  
*diana.castillo@hccs.edu*

The vision of HCC Coleman College for Health Sciences is to be the preeminent health sciences community college in the Notion, preparing students for today's health science careers and a lifetime of learning. Founded in 2004, Coleman College confers associate degrees and certificates in 19 health science fields in a state-of-the-art academic environment. As the only community college in the Texas Medical Center, HCC Coleman provides its students unparalleled access to world-renowned health science resources, and as a campus of Hovston Community College, offers affordable, rewarding futures. This email may contain confidential and/or privileged information. If you are not the intended recipient (or have received this email in error) please notify the sender immediately and destroy this email. Any unauthorized copying, disclosure or

Appendix B: Gonzalez-Castillo 2008 Hybrid Course Effectiveness Questionnaire

## APPENDIX E (Finley, 2007)

## The Hybrid Course Effectiveness Questionnaire (HCEQ)



The screenshot shows the SurveyMonkey.com interface. At the top left is the SurveyMonkey logo with the tagline "because knowledge is everything". To the right are links for "Privacy", "Contact Us", and "Logout". Below the logo are navigation links: "Home", "My Survey", "My Account", "Help", and "Contact Us". The survey title "Hybrid Course Effectiveness Questionnaire" is visible, along with a "Design Survey" button and a "Preview" button. The date "Sunday, March 04, 2007" is also shown.

**Design Survey** Show All Pages and Questions

To change the look of your survey, select a choice below. Click "Add" to create your own custom theme.

**Theme:** Blue Ice

Hybrid Course Effectiveness Questionnaire

IAO!d-1

Letter to Study Participants

J

Dear Faculty:

As part of my doctoral research, "An Exploratory Study of Faculty Attitudes Regarding Hybrid Course Effectiveness in a Community College," I have developed an instrument for applicability to the area of hybrid instruction. Hybrid courses are those where the instructor combines the elements of online distance learning and traditional instruction by replacing at least half of the face-to-face class sessions with virtual sessions using online forums, and web-based activities.

The 10-minute survey titled "Hybrid Course Effectiveness Questionnaire" has been designed to examine the insights of community college faculty who are experienced in teaching hybrid courses and to collect information regarding the effectiveness of hybrid courses in a community college.

The area of hybrid education is a relatively new area in community colleges so your participation and contribution to this research is very important. Your perspectives will assist community college faculty receive the support they need in order to keep up with future trends in instructional development.

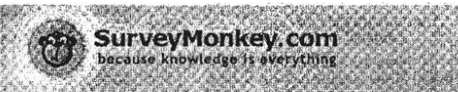
I am confident that your combined experiences, lessons and future expectations will improve teaching and learning for all students. Completing and submitting this survey is your agreement to participate in this study, but you may withdraw your consent to participate at any time. Information gathered from this study will remain confidential and protected by law.

I would like to thank you in advance for your kind consideration and support of this research. On a very personal level please know that I could not have come this far without your leadership and guidance.

You will now be directed to an electronic survey link to complete the

From Finley, R. (2007). SurveyMonkey.com. Reproduced with permission.




[Privacy](#) [Contact Us](#) [Logout](#)

[Home](#) [New Survey](#) [My Surveys](#) [List Management](#) [My Account](#) [Help Center](#)

Thu, 8 March 2007

### Design Survey 2. Instructions

[<< Back](#) [Preview](#)

To change the look of your survey, select a choice below. Click 'Add' to create your own custom theme.

Theme: Blue lee

### Hybrid Course Effectiveness Questionnaire

\_ Instructions

## tj itll # lifl

Following are 7 demographic questions, and 22 scaled statements about teaching hybrid courses. Please indicate your personal opinion about each statement by clicking the appropriate response. You will also have an opportunity at the end of the survey to provide additional comments to 6 open-ended questions.

Completing and submitting this survey is your agreement to participate in this study. Your responses will remain confidential, and no individual or school will be named in the report of this study. Your cooperation is greatly appreciated.

Please be certain to respond to all items on the survey. Click the NEXT button to begin the survey.

[Add Question](#) [Add Page](#)

SurveyMonkey is Hiring!  [Join Us](#)

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 No portion of this site may be copied without the express written consent of SurveyMonkey.com.

questionnaire. If you have additional questions about this investigation or need additional information regarding this study please contact me directly by telephone at (832) 347-8235 or by e-mail at dcastillo@houston.rr.com. You may also contact my dissertation chair, Dr. Fred Lunenburg. Professor Lunenburg can be reached at 936/294-1124 or at Edu\_fcl@shsu.edu.

Once again, thank you for your participation.

Sincerely,

Diana Castillo



#### Instructions

Following are 7 demographic questions, and 22 scaled statements about teaching hybrid courses. Please indicate your personal opinion about each statement by clicking the appropriate response. You will also have an opportunity at the end of the survey to provide additional comments to 6 open-ended questions.

Completing and submitting this survey is your agreement to participate in this study. Your responses will remain confidential, and no individual or school will be named in the report of this study. Your cooperation is greatly appreciated.

Please be certain to respond to all items on the survey. Click the NEXT button to begin the survey.



#### A. DEMOGRAPHIC DATA

Please select one choice for each question.

1

Gender

Female  
 Male

---

2

Ethnicity

African American  
 Asian  
 Caucasian

- 1..) Hispanic  
 ..) Other (please specify)

[Add Question](#) [Add Page](#)

3. What is your age group?

- ..) Under25  
 ..) 25-35  
 ..) 36-45  
 ..) 46-55  
 ..) 56-65  
 ..) Over65

[Add Question](#) [Add Page](#)

4. Teaching Experience

- ..) 5 years or less  
 ..) 6-10 years  
 ..) 11-15 years  
 ..) 16-20 years  
 ..) 21-30 years  
 ..) More than 30 years

[Add Question](#) [Add Page](#)

5. What is your teaching division?

- ..) Academic  
 ..) Health Sciences  
 ..) Workforce

[Add Question](#) [Add Page](#)

6. What is your faculty-status?

- ..) Full-time  
 ..) Part-time

[Add Question](#) [Add Page](#)

7. Please indicate your primary teaching location?

- ..) Central  
 ..) Coleman for Health Sciences  
 ..) Northeast

Northwest  
 ..) Southeast  
 -' Southwest

Add Question Add Page

ts. Hybrid Course Benefits for Students

p

Please indicate the degree of your agreement with the each of the following statements regarding the benefits of hybrid courses for students. (One choice for each statement)

Add Question Add Page

1. The greatest benefit of hybrid courses for students would be...	Strongly Disagree	Disagree	Agree	Strongly Agree
a. increased flexibility that allows adult learners to juggle personal, work-related and educational objectives compared to a lecture course.			@ 1	1 1 1
b. enhanced critical thinking, problem-solving, time management and computer skills.		1	J	
c. greater access to the instructor compared to a lecture course.		[\$]	[\$]	1s
d. that students manage and monitor their own course progress and become more responsible learners.		[@]	[0]	[@]
e. the varied and interactive learning materials that accommodate various learning styles.	@]			0]
f. greater course participation for timid students.	@]	@]	[\$]	
g. access to pre-recorded lectures and course materials for review if needed or missed by the student.		[@]	[\$]	[\$]
h. greater opportunities to present ideas within the privacy	[\$]	[@]	[0]	[@]

of their homes._			
i. optimized face-to-face class time with faculty and other students to focus on challenging course modules.	1[§1 I::J		
j.greater student success as measured by decreased withdrawal rates.	- [EJ] -- [x] I::J	[§] --	

Add Question Add Page

➤ C. Hybrid Course Benefits for Faculty

Please indicate the degree of your agreement with each of the following statements regarding the benefits of teaching hybrid courses for faculty. (One choice for each statement)

Add Question Add Page				
Edit Delete Copy/Move				
2.The greatest benefit of teaching hybrid courses for faculty would be...				
	Strongly Disagree	Disagree	Agree	Strongly Agree
a.increased student retention as measured by decreasing withdrawals._	[_@]	[@]	[_@]	[_@]
b. self-paced and flexible instruction enables faculty to provide learning opportunities to a much larger and diversified student body._				
c.the acquisition of technology skills that helps faculty to improve their teaching techniques so that both the face-to-face and online course components foster varied learning experiences for students._				
d. increased interaction and contact with students compared to a lecture course._		[@]		[x]
e. increased access to timid students as they are more likely to participate with the online components of the class._				[x]

f. teaching students who are engaged, motivated, and committed to achieving course objectives.

[Add Question](#) [Add Page](#)

**D. Faculty Changes in Teaching**

Please Indicate the degree of your agreement regarding the effect of hybrid courses on your teaching practices. (One choice for each statement)

[Add Question](#) [Add Page](#)

3- Teaching hybrid courses has affected my teaching practices in that...	Strongly Disagree	Disagree	Agree	Strongly Agree
a. I have become better organized to be instructionally proactive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I spend a lot of time acquiring new technical skills that allow me to bridge content with technology.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I spend more time listening, communicating, and interacting with students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I reflect more about which activities and interactive techniques will be used when teaching students face-to-face and online.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. I lecture less which has allowed me to coach and facilitate student learning more.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. I have to continuously look for ways to accommodate the various learning styles of students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Add Question](#) [Add Page](#)

**E. Open-ended Questions** [Edit Page](#) [Delete Page](#) [Copy/Move](#) [Add Logic](#)

Please answer the following questions as honestly as possible.

[Add Question](#) [Add Page](#)

[Edit](#) [Delete](#) [Copy/Move](#)

1. Please share any additional examples of hybrid course benefits for students that were not included in the survey.

L t  
-----  
3333

[Add Question](#) [Add Page](#)

Please share any additional examples that were not mentioned in the survey regarding the benefits of teaching hybrid courses for faculty.

J  
-----

[Add Question](#) [Add Page](#)

3. Please share any additional examples how the teaching hybrid courses has influenced your teaching.

[Add Question](#) [Add Page](#)

4. Please share one important reason why you decided to teach hybrid courses.

J  
-----  
L t

5. Please share any disadvantages of hybrid courses for students and/or faculty that was not mentioned in the survey?

[Add Question](#) [Add Page](#)

6. Please share any other information regarding the teaching of hybrid courses that may be helpful to this study.

[Add Question](#) [Add Page](#)

Thank You.

The topic of hybrid courses is relatively new in community colleges. I am confident that your responses and experiences will help colleges to improve teaching for faculty and learning for students.

I would like to personally thank you for your time and participation in this study. If you have any questions or concerns about this survey, please contact me directly at dcastillo@houston.rr.com or you may also reach me by cell at 832-347-8235.

[Add Question](#) [Add Page](#)

[Back](#) [Preview](#)



Appendix C: Institutional Review Board (IRB) Approvals (NCU and MCCD)

## IRB Approval – NCU

Student's name: Debra LaVergne  
School of Education  
Date: October 9, 2014

Dear Debra,

Thank you for your submission of your IRB application and supporting documents to IRB. Please review the feedback provided to you regarding your responses to the IRB application and other supporting documents.

This is an exempt IRB review.

**Purpose and Significance section**

No comments

**Participation Population and Recruitment section**

No comments

**Research Procedure section**

No comments

**Risks and Benefits section**

No comments

**Informed Consent (and Assent) section**

No comments

**Anonymity or Confidentiality section**

No comments

**Audio/Video Taping section**

No comments

**Compensation section**

No comments

**Deception section**

No comments

**Debriefing section** No  
comments **Supporting**

**Documents**

\*\*Permission letter has been obtained.

\*\*Consent form

--No comments

**Decision Status:** Approve

Good luck with data collection. Be sure to keep in close communication with your mentor and dissertation committee. Keep in mind that if there are any changes to the research procedures, you must notify the IRB.

Sincerely,

A handwritten signature in cursive script, reading "Alice Yick", is centered within a light gray rectangular box.

Alice Yick, Ph.D.  
NCU, Associate Director of IRB and IRB Reviewer

## IRB Approval –MCCD



Moricopa County Community College District  
 2411 West 14th Street  
 Tempe, AZ, 85281  
 TEL: (480) 731-8701  
 FAX: (480) 731-8282

DATE: November 06, 2014  
 TO: Dippold, Linisey, Education  
 FROM: La: wigre, DE: ba, Comp. I: W' h U O t m a. t i o n S y s t e m s  
 PROTOCOL TITLE: MCCCJ Institutional Review Board  
 FUNDING SOURCE: Blended Learning in Higher Education: Comparison of Faculty and Student Attitudes Regarding Course Effectiveness  
 PROTOCOL NUMBER: NONE  
 APPROVAL PERIOD: 2014-07-366  
 FORM TYPE: Approval Date: November 06, 2014  
 REVIEW TYPE: NEW  
 EXPEDITED  
 Exp. Date: October 31, 2015

Dear Principal Vestigab, Jr.,

The MCCD IRB reviewed your proposal and determined the activities outlined do not require IRB review under the Code of Federal Regulations, Title 45, Part 46.

The exemption is based on your protocol's status as an exempt review type.

Your project is:

If your protocol has been ruled as *exempt*, it is not necessary to submit it for review. If you decide to *modify* any part of your project design which might result in the loss of your exempt status, you must seek IRB approval prior to continuing by submitting a modification form.

If your protocol has been determined to be *expedited or full board review*, you must submit a modification form for review prior to the expiration date shown above. If you make any changes to your project design, please submit a modification form prior to continuing.

We appreciate your cooperation in complying with the federal guidelines that protect human research subjects. We wish you success in your project.

Cordially,  
 MCCDIRB

Appendix D: Email Invitations: Blended Learning Faculty and Students

## Faculty Invitation Email

Please complete a brief survey for my dissertation study: *Blended Learning in Higher Education: Comparison of Faculty and Student Attitudes Regarding Course Effectiveness*

Dear Hybrid/Blended Learning Faculty,

You are invited to participate in a research study being conducted for a dissertation at Northcentral University, Prescott, Arizona.

The study is: *Blended Learning in Higher Education: Comparison of Faculty and Student Attitudes Regarding Course Effectiveness*. The purpose of the study is to gain both the students' and the faculty's perspectives of course factors and how they impact hybrid/blended classes.

The estimated time to complete the faculty survey is approximately 15 to 20 minutes. Your participation in the questionnaire is voluntary, but very much appreciated. I would appreciate it if you would complete it by November 28.

The link to the faculty questionnaire is: <http://goo.gl/forms/6pww2jJ4eK>.

The study complies with and has been approved by Institutional Review Board of Maricopa County Community College District and Northcentral University. Before completing the Web questionnaire, you will be presented with an Informed Consent. Faculty participation in the questionnaire is voluntary, confidential, and anonymous.

Faculty participants who respond are given the option to provide an email address to receive a summary of the study's findings. Your email address will not be shared with any other sources, not be associated by your questionnaire responses, and will be deleted once the findings have been emailed to you.

You can opt out of the questionnaire by closing the survey link before completing it. If you choose to continue and complete the questionnaire, you are giving your consent to participate in the survey.

I would also appreciate if you would include a link in Canvas for students in your current **hybrid** classes, asking them to participate. Student participants who respond are given the option to provide an email address to be entered into a drawing to win one of two \$25 Target cards once the study is complete. Your students' email addresses will not be shared with any other sources, not be associated by their questionnaire responses, and will be deleted once the winner

has been selected and notified. The **student** survey link is: <http://goo.gl/forms/b4QphtqsCs>

The following are involved in this research study and may be contacted at any time:

Debra LaVergne, [deb.lavergne@mesacc.edu](mailto:deb.lavergne@mesacc.edu) or [480-461-7754](tel:480-461-7754);  
Dr. Lindsey Kathryn Dippold, [ldippold@ncu.edu](mailto:ldippold@ncu.edu) or [850-728-8477](tel:850-728-8477); and  
Lori Thorpe, IRB Coordinator, Maricopa County Community College District, [lori.thorpe@domain.maricopa.edu](mailto:lori.thorpe@domain.maricopa.edu) or [\(480\) 731-8701](tel:480-731-8701).

Thank you for your assistance with my study.  
Deb LaVergne

*Deb LaVergne*, M.A.O.M., ABD  
Residential Faculty Serving as CIS Occupational Program Director: Web Technology/Programming  
Business and Information Systems  
Mesa Community College  
1833 W. Southern Ave., BP035  
Mesa, AZ 85202  
p. 480.461.7754 (fall/spring semesters)  
web: <http://www.mesacc.edu/~debdt83701>  
email: [Deb.LaVergne@mesacc.edu](mailto:Deb.LaVergne@mesacc.edu)  
CIW: <http://www.ciwcertified.com>

### Student Invitation Email

Option to enter a drawing to win one of two \$25 Target gift cards: Please complete a brief survey for my dissertation study on Hybrid/Blended Learning. Thanks.

Dear Hybrid/Blended Learning Student,

You are invited to participate in a research study being conducted for a dissertation at Northcentral University, Prescott, Arizona.

The study is: *Blended Learning in Higher Education: Comparison of Faculty and Student Attitudes Regarding Course Effectiveness*. The purpose of the study is to gain the students' perspectives of course factors and how they impact hybrid/blended classes.

The estimated time to complete this survey is approximately 10 to 15 minutes. Your participation in the questionnaire is voluntary, but very much appreciated. Please complete the survey by Friday, November 28.

The link to the questionnaire is: <http://goo.gl/forms/b4QphtqsCs>

The study complies with and has been approved by Institutional Review Board of Maricopa County Community College District and Northcentral University. Before completing the Web questionnaire, you will be presented with an Informed Consent. Student participation in the questionnaire is voluntary, confidential, and anonymous. Students who are less than 18 years of age are required to opt out of the survey.

**Participants who respond are given the option to provide an email address to be entered into a drawing to win one of two \$25 Target gift cards once the study is completed.** You will be notified by email should your email address be chosen. Your email address will not be shared with any other sources, not be associated by your questionnaire responses, and will be deleted once the winners have been selected and notified.

You can opt out of the questionnaire by closing the survey link before completing it. If you choose to continue and complete the questionnaire, you are giving your consent to participate in the survey.

The following are involved in this research study and may be contacted at any time:

Debra LaVergne, [deb.lavergne@mesacc.edu](mailto:deb.lavergne@mesacc.edu) or [480-461-7754](tel:480-461-7754);  
Dr. Lindsey Kathryn Dippold, [ldippold@ncu.edu](mailto:ldippold@ncu.edu) or [850-728-8477](tel:850-728-8477); and  
Lori Thorpe, IRB Coordinator, Maricopa County Community College District, [lori.thorpe@domail.maricopa.edu](mailto:lori.thorpe@domail.maricopa.edu) or [\(480\) 731-8701](tel:480-731-8701).



Thank you for your assistance with my study

Deb LaVergne

***Deb LaVergne***, M.A.O.M., ABD

Residential Faculty Serving as CIS Occupational Program Director: Web  
Technology/Programming

Business and Information Systems

Mesa Community College

1833 W. Southern Ave., BP035

Mesa, AZ 85202

p. 480.461.7754 (fall/spring semesters)

web: <http://www.mesacc.edu/~debd83701>

email: [Deb.LaVergne@mesacc.edu](mailto:Deb.LaVergne@mesacc.edu)

CIW: <http://www.ciwcertified.com>

Appendix E: Hybrid Course Effectiveness Questionnaire: Faculty Perspective

# Hybrid Course Effectiveness Questionnaire: Faculty Perspective

## Informed Consent Form

Blended Learning in Higher Education: Comparison of Faculty and Student Attitudes Regarding Course Effectiveness

What is the study about?

You are invited to participate in a research study being conducted for a dissertation at Northcentral University in Prescott, Arizona. The study is interested in your thoughts and opinions about how you view factors that may possibly have an impact on your effectiveness/success in a hybrid/blended class. You were selected because you have taught or are currently teaching a hybrid course at Mesa Community College. There is no deception in this study.

What will be asked of me?

You will be asked to answer some questions where you check off rating scales about how you view factors that may possibly have an impact on both your students' and your effectiveness/success in a hybrid/blended class. There are also 10 open-ended, short-answer questions that will enable you to provide additional comments about your views. It is estimated it will take approximately 15 to 20 minutes for you to fill out the survey.

Who is involved?

The following people are involved in this research project and may be contacted at any time: Deb LaVergne, [deb.lave@mesa.cc.edu](mailto:deb.lave@mesa.cc.edu) or call 480-461-7754. You may also contact my dissertation chair, Dr. Lindsey Kathryn Dippold. She can be reached at [ldipold@ncu.edu](mailto:ldipold@ncu.edu) or 850-728-8477.

Are there any risks?

There are no known risks in this study. You may stop the study at any time. You can also choose not to answer any question that you feel uncomfortable answering.

What are some benefits?

There are no direct benefits or incentives to you participating in this research. The results will have scientific interest that may eventually have benefits for students and faculty participating in hybrid/blended classes. Once you have completed the survey, you will have the option to provide your email address for a summary of the results. The email information you submit will be kept separate from the survey and not be shared with anyone.

Is the study anonymous/confidential?

The data collected in this study are confidential. Your name or personal information is not linked to data.

Only the researchers in this study will see the data.

Can I stop participating the study?

You have the right to withdraw from the study at any time without penalty. You can skip any questions on any questionnaires if you do not want to answer them.

What if I have questions about my rights as a research participant or complaints?

If you have questions about your rights as a research participant, any complaints about your participation in the research study, or any problems that occurred in the study, please contact the researchers identified in the consent form. Or if you prefer to talk to someone outside the study team, you can contact Northcentral University's Institutional Review Board at [irb@ncu.edu](mailto:irb@ncu.edu) or 1-888-327-2877 ex 8014.

We would be happy to answer any question that may arise about the study. Please direct your questions or comments to: Deb LaVergne, [deb.lavergne@mesacc.edu](mailto:deb.lavergne@mesacc.edu) or call (480) 461-7754. You may also contact my dissertation chair, Dr. Lindsey Kathryn Dippold. She can be reached at [ldippold@ncu.edu](mailto:ldippold@ncu.edu) or (850) 728-8477. In addition, you may contact Lori Thorpe, IRB Coordinator, Maricopa County Community College District, [lori.thowe@domail.maricopajc.edu](mailto:lori.thowe@domail.maricopajc.edu) or (480) 731-8701.

Signature

I have read the above description for the Blended Learning in Higher Education: Comparison of Faculty and Student Attitudes Regarding Course Effectiveness study. I understand what the study is about and what is being asked of me. My continuing to answer the questions in this survey indicates that I am 18 years or older and that I agree to participate in the study.

Once again, thank you for your participation.

Sincerely, Deb  
LaVergne

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# Hybrid Course Effectiveness Questionnaire: Faculty Perspective

## Hybrid Course Effectiveness Questionnaire: Faculty Perspective

Your response to all items on the 15-20 minute survey would be appreciated. If you are teaching multiple hybrid/blended classes, please complete only one questionnaire. Please do not complete multiple questionnaires as this may affect the results. Thank you.

Following are 9 demographic questions, 16 scaled statements about course effectiveness of hybrid classes for students, 13 scaled statements about course effectiveness of hybrid classes for faculty, and 6 scaled statements about teaching practices. Please indicate your personal opinion about each statement by clicking the appropriate response. You will also have an opportunity at the end of the survey to provide additional comments to 10 open-ended questions.

Completing and submitting this survey is your agreement to participate in this study and that you are 18 years old or older. (If you are under 18, please do not participate in this survey.) Your responses will remain confidential, and no individual will be named in the report of this study. Your cooperation is greatly appreciated.

OPTIONAL: If you would like to receive a copy of the findings from this study, please provide your Maricopa email on the page following the survey.

If you have additional questions about this investigation or need additional information regarding this study please contact me directly by e-mail at [deb.lave'llie@mesacc.edu](mailto:deb.lave'llie@mesacc.edu) or call (480) 461-7754. You may also contact my dissertation chair, Dr. Lindsey Kathryn Dippold. She can be reached at [ldippold@go1.edu](mailto:ldippold@go1.edu) or (850) 728-8477. In addition, you may contact Lori Thorpe, IRB Coordinator, Maricopa County Community College District, [lori.thorpe@domail.maricopa.edu](mailto:lori.thorpe@domail.maricopa.edu) or (480) 731-8701.

Once again, thank you for your participation.

Sincerely, Deb  
LaVergne

## A. Demographic Information

Please select one choice for each question.

### A1. Gender

- Female
- Male

### A2. Ethnicity

- African American
- Asian
- Caucasian
- Hispanic
- Other:

### A3. What is your age g=up?

- Under 25
- 25-35
- 36-45
- 46-55
- 56-65
- Over65

### A4. What is your Teaching Experience (including tl is semester)?

- 5 years or less
- 6-10 years
- 11-15 years
- 16-20 years
- 21-30 years
- More than 30 years

### A5. What is your teaching area?

- Academic
- Occupational
- Other:

A6. What is your faculty status?

- Full-time
- Adjunct

A7. How many college hybrid/blended classes have you taught (including this semester)

- 1-5
- 6-10
- 11-15
- 16-20
- More than 20 classes

A8. What is the average percentage of hybrid classes you teach each per semester?

- 0-25%
- 26-50%
- 51-75%
- 76-100%

A9. Have you completed training concerning developing and/or teaching hybrid classes?

Please check all that apply.

- No
- Yes, through MCCC workshops.
- Yes, through graduate/post-graduate classes.
- Yes, through non-MCCC workshops
- Other:

## **B. Hybrid Course Benefits and Challenges Affecting Course Effectiveness for Students**

Please indicate the degree of your agreement with each of the following statements regarding the course success factors of hybrid courses for students. (One choice for each statement)

B1. Please indicate the degree of your agreement with each of the following statements regarding the benefit of hybrid courses for students that would contribute to course effectiveness for students.

(One choice for each statement.)

	1 Strongly Disagree	2 Disagree	3 Agree	4 Strongly Agree
B1a. Increased flexibility that allows the adult learner to juggle personal, work related, and educational objectives compared to a <b>lecture course</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B1b. Enhanced critical thinking and problem solving skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B1c. Enhanced <b>time management</b> skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B1d. Enhanced computer skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B1e. Greater access to the <b>instructor</b> compared to an <b>online course</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B1f. Students can manage and <b>monitor their own course progress</b> and become more responsible <b>learners</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B1g. Varied and <b>interactive learning</b> materials that <b>accommodate</b> various learning styles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B1h. Greater <b>course</b> participation for timid students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B1i. Access to ore-				



recorded lectures and course materials for review if needed or missed by the student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B1j. Greater opportunities to present ideas with the privacy of their homes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B1k. Optimized face-to-face class time with faculty and other students to focus on challenging course modules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B1l. Greater student success as measured by decreased withdrawal rates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B2. Please indicate the degree of your agreement with each of the following statements regarding the challenge of hybrid courses for students that would contribute to a decrease in course effectiveness for students. (One choice for each statement.)

	1 Strongly Disagree	2 Disagree	3 Agree	4 Strongly Agree
B2a. Reduced access to the instructor compared to a face-to-face course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B2b. Increased need for student technology skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B2c. A greater disconnect with on-campus services and activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B2d. Ineffective communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

prior to  
enrollment

concerning  
definitions and  
expectations of  
hybrid modality

## C. Hybrid Course Benefits and Challenges Affecting Course Effectiveness for Faculty

Please indicate the degree of your agreement with each of the following statements regarding the course success factors of hybrid courses for faculty. (One choice for each statement)

C1. Please indicate the degree of your agreement with each of the following statements regarding the benefit of hybrid courses for faculty that would contribute to course effectiveness for faculty. (One choice for each statement.)

	1 Strongly Disagree	2 Disagree	3 Agree	4 Strongly Agree
C1a. Greater student success as measured by decreased withdrawal rates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C1b. Self-paced and flexible instruction enables faculty to provide learning opportunities to a much larger and diversified student body	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C1c. The acquisition of technology skills that helps faculty to improve their teaching techniques so that both the face-to-face and online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

course components foster varied learning experiences for students

C1d. Increased interaction and contact with students compared to an online course

C1e. Increased access to online students as they are more likely to participate with the online components of the class

C1f. Teaching students who are engaged, motivated, and committed to achieving course objectives

C1g. Increased flexibility that allows faculty member to juggle personal, work-related, and educational objectives compared to a lecture course.

C1h. Decreased cost of resources (classroom prep, printed materials) and efficient classroom scheduling

C2. Please indicate the degree of your agreement with each of the following statements regarding

the challenge of hybrid courses for faculty that would contribute to a decrease in course effectiveness for faculty. (One choice for each statement.)

	1 Strongly Disagree	2 Disagree	3 Agree	4 Strongly Agree
C2a. Reduced access to the students compared to an face to face class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C2b. Increased need for faculty technology skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C2c. Determining which technologies should be integrated into classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C2d. Ineffective communication prior to enrollment concerning definitions and expectations of hybrid modality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C2e. Increased time for course development and activity synchronuzation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## D. Faculty Changes in Teaching Practices

Please indicate the degree of your agreement regarding the effect of hybrid courses on your teaching practices. (One choice for each statement.)

D1. Teaching hybrid courses has affected my teaching practices in that...

	1 Strongly Disagree	2 Disagree	3 Agree	4 Strongly Agree
D1a. I have become better				

organized to be      
 instructional

**proactive,**

D1b. I spend a lot      
 of time acquiring  
 new technical skills  
 that allow me to  
 bridge content  
 with technology.

D1c. I spend more      
 time listening,  
 communicating,  
 and interacting  
 with students.

D1d. I reflect      
 more about which  
 activities and  
 techniques will be  
 used when  
 teaching students  
 face to face and  
 online.

D1e. I lecture less      
 which has allowed  
 me to coach and  
 facilitate student  
 learning more.

D1f. I have to      
 continuously look  
 for ways to  
 accommodate the  
 various learning  
 styles of students.

## E. Open-ended Questions

Please answer the following questions as honestly as possible.

E1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

E2. Please share one important reason why you decided to teach hybrid classes.

E3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.

E4. Please share any additional examples of hybrid course benefits as course effectiveness factors for faculty that were not included in the survey.

E5. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.

E6. Please share examples of possible challenges to faculty teaching hybrid courses that were not included in the survey.

E7. Please share any additional examples of how teaching hybrid courses has influenced your **teaching practices**.

E8. What do you believe are the top factors leading to learner success for students in a **blended learning classroom**? How is this different or similar to learner success in a **face-to-face or online classroom**?

E9. Please list your top three recommended "best practices" for course effectiveness when teaching in a blended classroom.

E10. Please list three recommendations for strategic implementation options of "best practices" for course effectiveness when teaching in a blended classroom.

## Thank You!

The topic of hybrid courses is relatively new in community colleges. I am confident that your responses and experiences will help colleges to improve teaching for faculty and learning for students. I would like to personally thank you for your time and participation in this study. If you have any questions or concerns about this survey, please contact me directly at [deb.lavergne@mesacc.edu](mailto:deb.lavergne@mesacc.edu) or you may also reach me at 480-461-7754.

OPTIONAL: If you would like to receive a copy of the findings from this study, please provide your Maricopa email on the following page. If not, once again, thank you for participating in this survey.

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# Hybrid Course Effectiveness Questionnaire: Faculty Perspective

## OPTIONAL

OPTIONAL: If you would like to receive a copy of the findings from this study, please provide your Maricopa email on the following page. If not, once again, thank you for participating in this survey.

OPTIONAL: Please type in your Maricopa email below if you would like to receive a copy of the findings of this study.

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## Appendix F: Hybrid Course Effectiveness Questionnaire: Student Perspective

# Hybrid Course Effectiveness Questionnaire: Student Perspective

### Informed Consent Form

Blended Learning in Higher Education: Comparison of Faculty and Student Attitudes Regarding Course Effectiveness

What is the study about?

You are invited to participate in a research study being conducted for a dissertation at Northcentral University in Prescott, Arizona. The study is interested in your thoughts and opinions about how you view factors that may possibly have an impact on your effectiveness/success in a hybrid/blended class. You were selected because you have taken or are currently enrolled in a hybrid course at Mesa Community College. There is no deception in this study.

What will be asked of me?

You will be asked to answer some questions where you check off rating scales about how you view factors that may possibly have an impact on your effectiveness/success in a hybrid/blended class. There are also five open-ended, short-answer questions that will enable you to provide additional comments about your views. It is estimated it will take approximately 10 to 15 minutes for you to fill out the survey.

Who is involved?

The following people are involved in this research project and may be contacted at any time: Deb LaVergne, [deb.laverne@mesacc.edu](mailto:deb.laverne@mesacc.edu) or call (480) 461-7754. You may also contact my dissertation chair, De Lindsey Kathryn Dippold. She can be reached at [ldi0jold@ncu.edu](mailto:ldi0jold@ncu.edu) or (850) 728-8477. In addition, you may contact Lori Thorpe, IRB Coordinator, Maricopa County Community College District, [lori.thowe@domail.maricopa.edu](mailto:lori.thowe@domail.maricopa.edu) or (480) 731-8701.

Are there any risks?

There are no known risks in this study. You may stop the study at any time. You can also choose not to answer any question that you feel uncomfortable answering.

What are some benefits?

There are no direct benefits to you participating in this research. No incentives related to coursework, course grades, or extra credit will be provided. No monetary incentives will be given. Minimal incentives may be offered such as an optional entrance into a drawing for a gift card. The results will have scientific interest that may eventually have benefits for students and faculty participating in hybrid/blended classes. Once you have completed the survey, you will have the option to provide your email address for a chance to win one of two \$25 Target gift certificates. The email information you submit will kept separate from the survey and not be shared with anyone.

Is the study anonymous/confidential?

The data collected in this study are confidential. Your name or personal information is not linked to data. Only the researchers in this study will see the data.

Can I stop participating the study?

You have the right to withdraw from the study at any time without penalty. You can skip any questions on **any questionnaires if you do not want to answer them.**

What if I have questions about my rights as a research participant or complaints?

If you have questions about your rights as a research participant, any complaints about your participation in the research study, or any problems that occurred in the study, please contact the researchers identified in the consent form. Or if you prefer to talk to someone outside the study team, you can contact

Northcentral University's Institutional Review Board at [irb@ncu.edu](mailto:irb@ncu.edu) or 1-888-327-2877 ex 8014.

We would be happy to answer any question that may arise about the study. Please direct your questions or comments to: Deb LaVergne, [deb.laverne@mesocc.edu](mailto:deb.laverne@mesocc.edu) or call (480) 461-7754. You may also contact my dissertation chair, Dr. Lindsey Kathryn Dippold. She can be reached at [ldippold@ncu.edu](mailto:ldippold@ncu.edu) or (850) 728-

8477. In addition, you may contact Lori Thorpe, IRB Coordinator, Maricopa County Community College District, [lorithorpe@maricopa.edu](mailto:lorithorpe@maricopa.edu) or (480) 731-8701.

Signature

I have read the above description for the Blended Learning in Higher Education: Comparison of Faculty and Student Attitudes Regarding Course Effectiveness study. I understand what the study is about and what is being asked of me. My continuing to answer the questions in this survey indicates that I am 18 years or older and that I agree to participate in the study.

Once again, thank you for your participation.

Sincerely, Deb

LaVergne

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# Hybrid Course Effectiveness Questionnaire: Student Perspective

## Hybrid Course Effectiveness Questionnaire: Student Perspective

Your response to all items on the 10 minute survey would be appreciated. If you are enrolled in multiple hybrid/blended classes, please complete only one questionnaire. Please do not complete multiple questionnaires as this may affect the results. Thank you.

Following are 9 demographic questions, and 19 scaled statements about taking hybrid courses. Please indicate your personal opinion about each statement by clicking the appropriate response. You will also have an opportunity at the end of the survey to provide additional comments to 5 open-ended questions.

Completing and submitting this survey is your agreement to participate in this study and that you are 18 years old or older. (If you are under 18, please do not participate in this survey) Your responses will remain confidential, and no individual will be named in the report of this study. Your cooperation is greatly appreciated.

**OPTIONAL DRAWING:** If you would like to be included in the drawing for a \$25 Target Gift Card, please provide your email on the page following the survey.

If you have additional questions about this investigation or need additional information regarding this study please contact me directly by e-mail at [deb.h.v.ve.une@mesacc.edu](mailto:deb.h.v.ve.une@mesacc.edu) or call (480) 461-7754. You may also contact my dissertation chair, Dr. Lindsey Kathryn Dippold. She can be reached at [ldippold@neu.edu](mailto:ldippold@neu.edu) or (850) 725.8477. In addition, you may contact Lori Thorpe, IRB Coordinator, Maricopa County Community College District, [lori.thorpe@domail.maricopa.edu](mailto:lori.thorpe@domail.maricopa.edu) or (480) 731-8701.

Once again, thank you for your participation.

Sincerely, Deb  
LaVergne

## A. Demographic Information

Please select one choice for each question.

A1 Gender

- Female
- Male

A2 Ethnicity

- African American
- Asian
- Caucasian
- Hispanic
- Other:

A3 What is your age group?

- Under 25
- 25-35
- 36-45
- 46-55
- 56-65
- Over 65

A4 What is your College Education (including this semester)?

- 1-12 credits
- 13-24 credits
- 25-36 credits
- 37-48 credits
- More than 48 credits

A5 What is your program area?

- Academic
- Occupational
- Other:

A6 What is your enrollment status this semester?

- Full-time (12 or more credits per semester)
- Part-time (less than 12 credits per semester)

A7 How many college hybrid /blended classes have you taken (including this semester)

- 1-5
- 6-10
- 11-15
- 16-20
- More than 20 classes

A8 What is the average percentage of hybrid classes you take each per semester?

- 0-25%
- 26-50%
- 51-75%
- 76-100%

A9 Have you completed an orientation or training concerning taking hybrid or online classes?

- No
- Yes

## B. Hybrid Course Benefits and Challenges Affecting Course Effectiveness for Students

Please indicate the degree of your agreement with each of the following statements regarding the course success factors of hybrid courses for students. (One choice for each statement)

B1. Please indicate the degree of your agreement with each of the following statements regarding the benefit of hybrid courses for students that would contribute to course effectiveness for students. (One choice for each statement)

1 Strongly Disagree    2 Disagree    3 Agree    4 Strongly Agree

B1a. Increased flexibility that allows the adult learner to utilize

personal, work-related, and educational objectives	0	0	0	0
<b>compared to a lecture course</b>				
B1b. Enhanced critical thinking and problem solving skills	0	0	0	0
B1c. Enhanced time management skills	0	0	0	0
B1d. Enhanced computer skills	0	0	0	0
B1e. Greater access to the instructor	0	0	0	0
<b>compared to an online course</b>				
B1f. Students can manage and monitor their own course progress and become more responsible learners	0	0	0	0
B1g. Varied and interactive learning materials that accommodate various learning styles	0	0	0	0
B1h. Greater course participation for timid students	0	0	0	0
B1i. Access to pre-recorded lectures and course materials for review if needed or missed by the student	0	0	0	0
B1i. Greater				

opportunities to present ideas within the privacy of their homes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blk. Optimized face to face class time with faculty and other students to focus on challengmg course modules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BlI. Greater student success as measured by decreased wthdrawal rates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**B2. Please indicate dle degree of your agreement with each of the following statements regarding the challenge of hybrid courses for students that would contribute to a decrease in course effectiveness for students. (One choice for each statetent.)**

	1 Strongly Disagree	2 Disagree	3 Agree	4 Strongly Agree
B2a. Reduced access to the tnstructor compared to a face to face course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B2b. Increased need for student technology skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B2c.A greater dtsconnect with on campus services and activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B2d. Ineffective communtcatt on prior to enrollment concemmg defimt:tons and expectations of hybod modality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## C. Student Changes in Learning Practices

Please indicate the degree of your agreement regarding the effect of hybrid courses on your learning practices. (One choice for each statement.)

C1. Taking hybrid courses has affected my learning practices in that...

	1 Strongly Disagree	2 Disagree	3 Agree	4 Strongly Agree
C1a. I have become better organized.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C1b. I spend a lot of time acquiring new technical skills that allow me to access content.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C1c. I spend more time listening, communicating, and interacting with faculty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## D. Open-ended Questions

Please answer the following questions as honestly as possible.

D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

D2. Please share one important reason why you decided to take hybrid classes.

OPTIONAL DRAWING: If you would like to be included in the drawing for a \$25 Target Gift Card, please provide your Maricopa email on the following page. If not, once again, thank you for participating In this survey.

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**D3-D4**

# Hybrid Course Effectiveness Questionnaire: Student Perspective

## OPTIONAL DRAWING

OPTIONAL DRAWING: If you would like to be included in the drawing for a \$25 Target Gift Card, please provide your valid email on the following page. If not, once again, thank you for participating In this survey.

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## Appendix G: Percent of Distribution of Faculty Responses by Questions

Table G1:

*Percent Distribution of Faculty Responses By Question*

Response	FC1A	FC1B	FC1C	FC1D	FC1E	FC1F	FC1G	FC1H
4 Strongly Agree	10%	23%	45%	60%	29%	23%	29%	29%
3 Agree	45%	68%	52%	40%	55%	53%	55%	45%
2 Disagree	39%	6%	3%	0%	16%	23%	13%	23%
1 Strongly Disagree	6%	3%	0%	0%	0%	0%	3%	3%
	100%	100%	100%	100%	100%	99%	100%	100%
	FC2A	FC2B	FC2C	FC2D	FC2E			
4 Strongly Agree	6%	26%	23%	29%	39%			
3 Agree	39%	48%	61%	42%	35%			
2 Disagree	45%	26%	16%	29%	23%			
1 Strongly Disagree	10%	0%	0%	0%	3%			
	100%	100%	100%	100%	100%			
	FD1A	FD1B	FD1C	FD1D	FD1E	FD1F		
4 Strongly Agree	23%	13%	10%	35%	29%	23%		
3 Agree	61%	71%	45%	58%	52%	61%		
2 Disagree	16%	13%	45%	6%	19%	13%		
1 Strongly Disagree	0%	3%	0%	0%	0%	3%		
	100%	100%	100%	100%	100%	100%		

*Note: Percentages may not equal 100% due to rounding*

The distribution of faculty responses to questions from Section C: Hybrid Course Benefits Affecting Course Effectiveness for Faculty illustrated in Table G1 included FC1A: greater student success as measured by decreased withdrawal rates; FC1B: self-paced and flexible instruction, FC1C: the acquisition of technology skills, FC1D: increased interaction with students, FC1E: increased access to timid students, FC1F:

teaching students who are engaged, motivated, and committed to achieving course objectives, FC1G: increased flexibility, and FC1H: decrease cost of resources.

The distribution of faculty responses to questions from Section C: Hybrid Course Challenges Affecting Course Effectiveness for Faculty illustrated in Table G1 included FC2A: reduced access to students; FC2B: increased need for faculty technology skills, FC3C: determining technologies to be integrated, FC2D: ineffective communication prior to enrollment, and FC2E: increased time for course development.

The distribution of faculty responses to questions from Section D: Faculty Changes in Teaching Practices illustrated in Table G1 included FD1A: better organization; FD1B: acquired technology skills, FD1C: more time interacting with students, FD1D: reflective about activities and techniques used, FD1E: less lecturing, and FD1F: addressing learning styles.

## Appendix H: Percent of Distribution of Student Responses by Questions

Table H1:

### Percent Distribution of Student Responses By Question

Response	SC1A	SC1B	SC1C
4 Strongly Agree	15%	20%	17%
3 Agree	54%	39%	34%
2 Disagree	25%	33%	41%
1 Strongly Disagree	6%	8%	8%
	100%	100%	100%

Percent Distribution of Student Responses for Student Changes in Learning Practices  
 Questions SC1A: Organization, SC1B: New Technology, and SC1C: Faculty Interaction

Appendix I: Themed Faculty and Student Responses

Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
<i>Multi-Modal (Expanded Class Options)</i>	<ul style="list-style-type: none"> <li>• Moving away from brick and mortar instruction</li> <li>• Multiple modes of teaching (faculty) and learning (students).</li> <li>• A way to reach more students</li> <li>• I think in terms of a course that combines computer or online learning with classroom instruction and the opportunities it presents to me as an instructor to try to reach students in many different ways.</li> <li>• I think of a class that mixes some online with some face-to-face. More responsibility is placed on the students.</li> <li>• We must continue to do this. All education will convert to hybrid or all online learning</li> <li>• I think of a course that is 50% online (Canvas class) and 50% face to face.</li> <li>• I think the term means that it is a combination of web-based learning along with face-to-face learning.</li> <li>• I think a combination of online and face-to-face classroom attendance OR a shortened course, like an 8 week course.</li> </ul>	<ul style="list-style-type: none"> <li>• A mixture of both online forms of understanding the course's material and in person lectures.</li> <li>• I think of a class that is taught at an accelerated rate. Making the class more interesting to me because the teacher doesn't dwell on topics that the rest of the class aren't quite grasping</li> <li>• Online mixed with face time.</li> <li>• An opportunity to learn from home, but still have interaction and face time with classmates and instructors.</li> <li>• on line and in person</li> <li>• Half lecture, half online class</li> <li>• Hard but makes you understand more</li> <li>• I will get instruction in class and finish coursework at home.</li> <li>• That the class will be part time online work and part time in class work.</li> </ul>

Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
	<ul style="list-style-type: none"> <li>• Courses that are designed to incorporate both face-to-face instruction/classroom time as well as self-paced work that students do outside of the class (most commonly online).</li> </ul>	<ul style="list-style-type: none"> <li>• Online and in class</li> </ul>
	<ul style="list-style-type: none"> <li>• Independent student-learners.</li> </ul>	<ul style="list-style-type: none"> <li>• Less time on campus, more time remotely.</li> </ul>
	<ul style="list-style-type: none"> <li>• The term reflects a combination of instructional methods with some being traditional and some being online.</li> </ul>	<ul style="list-style-type: none"> <li>• I think of a class that allows you to learn in a classroom from a professor but also gives you an opportunity to teach yourself as well.</li> </ul>
	<ul style="list-style-type: none"> <li>• Face-to-face time is traded for on-line activities to be completed at home by students on days when a class does not meet.</li> </ul>	<ul style="list-style-type: none"> <li>• A combination of classroom and online learning.</li> </ul>
	<ul style="list-style-type: none"> <li>• A mixture of online and in class activities. The online portion of the class helps reinforce and add to what is covered in class and vice versa.</li> </ul>	<ul style="list-style-type: none"> <li>• Learning in the class room and learning outside the class room</li> </ul>
	<ul style="list-style-type: none"> <li>• Face-to-face instruction with an online component.</li> </ul>	<ul style="list-style-type: none"> <li>• Mix of online and in class structure</li> </ul>
		<ul style="list-style-type: none"> <li>• half online, half lecture.</li> </ul>
		<ul style="list-style-type: none"> <li>• reduced class time requires more online learning.</li> </ul>
		<ul style="list-style-type: none"> <li>• I think of a class that is partially online but still meets face to face at some point in the semester.</li> </ul>
		<ul style="list-style-type: none"> <li>• online and lecture</li> </ul>



Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
		<ul style="list-style-type: none"> <li>I don't have any negative thoughts towards those terms. While I feel that hybrid or blended classes are not for everyone, I've done rather well in the classes that I've completed.</li> </ul>
		<ul style="list-style-type: none"> <li>A fast pace class, with much more harder work and takes more time</li> </ul>
		<ul style="list-style-type: none"> <li>two into one. I thought at first that I might have to learn two different teaching styles.</li> </ul>
		<ul style="list-style-type: none"> <li>I enjoy having access to all material, grades, and instruction available to me online.</li> </ul>
		<ul style="list-style-type: none"> <li>Online courses or classes that also do a lot of online work like discussions.</li> </ul>
		<ul style="list-style-type: none"> <li>I think of "blended" as half online half in person.</li> </ul>
		<ul style="list-style-type: none"> <li>A more "modern" day idea of learning.</li> </ul>
		<ul style="list-style-type: none"> <li>I think of half online and half in class learning. I have heard the term before entering the class and for personal reasons always decided to do full online. When I finally signed I liked the fact that I only had to meet in class once a week, so it doesn't conflict with my busy schedule too much and I can still work at home any time during the week.</li> </ul>
		<ul style="list-style-type: none"> <li>i think of having classes in class and online. where assignments are completed and submitted in both the classroom and the computer.</li> </ul>

Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
		<ul style="list-style-type: none"> <li>When I hear the term blended or hybrid, I think that it means that it will be both on the internet and face to face.</li> </ul>
		<ul style="list-style-type: none"> <li>I think that it would be a combination class where there would be online courses and face to face courses.</li> </ul>
		<ul style="list-style-type: none"> <li>It means in-school class and half at home or online.</li> </ul>
		<ul style="list-style-type: none"> <li>I think of "blended or hybrid" learning as a tool especially in our technology society.</li> </ul>
		<ul style="list-style-type: none"> <li>I think of two learning styles to help educate the student, sitting in class everyday doesn't work for a lot of people.</li> </ul>
		<ul style="list-style-type: none"> <li>What comes to my mind is that that course is fast tract and also has both in class activities and outside class activities</li> </ul>
		<ul style="list-style-type: none"> <li>I think of hybrid as meeting in class once a week and doing the core of the work online.</li> </ul>
		<ul style="list-style-type: none"> <li>a combination of learning or a new/fast way of learning.</li> </ul>
		<ul style="list-style-type: none"> <li>Two Parts of the same class.</li> </ul>
		<ul style="list-style-type: none"> <li>I think of a different style of learning.</li> </ul>
		<ul style="list-style-type: none"> <li>I hear for the word blended is "integrated" or "combination", and when I hear hybrid I hear "advanced."</li> </ul>

Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
		<ul style="list-style-type: none"> <li>I think of a class that should be just as much online as it should be in class. If more of it is online than in class than it doesn't fit the term of being properly blended.</li> </ul>
		<ul style="list-style-type: none"> <li>When I hear the term "blended" or "hybrid" I think of a class that is both online and in person.</li> </ul>
		<ul style="list-style-type: none"> <li>I personally think of less hour spent on campus or a compilation between multi classes.</li> </ul>
		<ul style="list-style-type: none"> <li>I think of a class that is lecture and online based.</li> </ul>
		<ul style="list-style-type: none"> <li>A combination of online &amp; face to face interaction with the instructor &amp; other students.</li> </ul>
		<ul style="list-style-type: none"> <li>I think of how students are provided with multiple ways to complete a class, earn credits, and learn new skills, but also limited accessibility to the instructor (sometimes).</li> </ul>
		<ul style="list-style-type: none"> <li>That I will access to additional learning and lecture material in one repository. I will also have several links to sites provided by the instructor to even more information if I find that I have more difficulty learning a certain topic in class than others.</li> </ul>
		<ul style="list-style-type: none"> <li>Hybrid- structured online information combined with in person lecture and exams</li> </ul>
		<ul style="list-style-type: none"> <li>Hybrid- structured online information combined with in person lecture and exams</li> </ul>

Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
		<ul style="list-style-type: none"> <li>Modified instruction in which information is disseminated through classroom instruction and online collaboration.</li> </ul>
		<ul style="list-style-type: none"> <li>Some time is spent in the classroom, with assignments being done online.</li> </ul>
		<ul style="list-style-type: none"> <li>A mix between online and on campus learning</li> <li>Classes that you go to once a week the next time online.</li> </ul>
		<ul style="list-style-type: none"> <li>The class is part lecture or instruction by attending the course and part online homework completion online.</li> </ul>
		<ul style="list-style-type: none"> <li>Before taking the classes I did not know what to expect because it was never explained. Now that I have taken the classes I think of homework online and less time in class</li> </ul>
		<ul style="list-style-type: none"> <li>Just that, a course with varied teaching models to accommodate each student enrolled.</li> </ul>
		<ul style="list-style-type: none"> <li>Blended in my mind mashes two classes together. While it is technically one class, in my experience of hybrid classes I felt it was like two classes where I learned a lot in both classes.</li> </ul>
		<ul style="list-style-type: none"> <li>I think of online content and the instructor is there to help you marinate what didn't make sense.</li> <li></li> </ul>

Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
<i>Flexibility</i>	<ul style="list-style-type: none"> <li>Blended or hybrid learning suggests that there is a reduction in traditional, classroom (face-to-face) time with students, and at least some portion of the class that is adapted to self-study, or online learning. That can be in the format for a "flipped classroom" or can literally mean that you only meet with students 50% (or less) of the time.</li> <li>I teach a lecture/lab hybrid. They only come to campus for lab where we need to use campus equipment, etc. It is flexible and a good use of classroom space.</li> <li>Less classroom time, more online interaction.</li> </ul>	<ul style="list-style-type: none"> <li>i think all the good qualities of both in class learning and home computer class learning. i think i hear the future of education as a whole.</li> <li>Assignment on line and more class time used to focus on the main goal</li> <li>Two ways combined to educate people</li> <li>it reminds me of a class mixed with both online and in class work.</li> <li>Less time in the classroom to allow for more flexibility. Also when there is a test it gives you as much time as you need to complete it and at your leisure.</li> <li>increased flexibility for those that have jobs and responsibilities outside of school.</li> <li>"Maybe I can balance my work schedule after all!"</li> <li>Its half in a class room setting, half on your own time which allows students the flexibility to complete assignments at their own pace.</li> </ul>

Table II: Faculty E1/Student D1

**Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?**

Trend/Theme	Faculty Response (E1)	Student Response (D1)
		<ul style="list-style-type: none"> <li>• More time to balance classes and work life and more flexible.</li> </ul>
		<ul style="list-style-type: none"> <li>• More efficient resources available regarding homework material. More flexibility with work/personal schedule for large credit classes without sacrificing much time with face to face teacher time.</li> </ul>
		<ul style="list-style-type: none"> <li>• In my opinion, I feel those words relate to a less stressful class that full-time students would feel most comfortable. Of course, there are some people who prefer just online classes or in-person classes, but hybrid classes feel like the neutral side and is suitable for anyone who wants to be more organized in time scheduling and flexibility.</li> </ul>
		<ul style="list-style-type: none"> <li>• freedom to take classes</li> </ul>
		<ul style="list-style-type: none"> <li>• Having the ability to have both face to face interaction in studies as well as having the ability to work independently at home online.</li> </ul>
		<ul style="list-style-type: none"> <li>• I think options and flexibility.</li> </ul>
		<ul style="list-style-type: none"> <li>• More freedom and time management</li> </ul>
		<ul style="list-style-type: none"> <li>• Allowing more flexibility in the class schedule</li> </ul>
		<ul style="list-style-type: none"> <li>• that it will require less in class time</li> </ul>
		<ul style="list-style-type: none"> <li>• Provides flexibility</li> </ul>

Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
<i>"Best" of both modalities</i>	<ul style="list-style-type: none"> <li>Combining, or blending, the best of both modalities (online and f2f) to provide flexibility and increase access to learning.</li> <li>A combination of the best of online and FtF classes.</li> <li>Opportunity for interaction both in face to face and online</li> <li>A perfect fit for active student learning!</li> </ul>	<ul style="list-style-type: none"> <li>Hearing the term "hybrid" when enrolling in a course for school the idea of flexibility comes to mind. Greater opportunity to be a successful full time student and maintain a full time job.</li> <li>It makes me think that more opportunities and different ways of learning are provided and combined for students to learn.</li> <li>More flexibility better for me</li> <li>Less time in class.</li> <li>I think of a more comprehensive course that allows more flexibility in how I approach learning.</li> <li>Hybrid classes can be a great way to get a highly valued education with less expenses and a more flexible week.</li> <li>I think of the word simultaneously. In a sense that you not only have a face to face instructor, but at the same time you can focus on all of your online material. I find it both</li> <li>blended or hybrid learning is important for education that can expand our sights for study.it 's a good idea for students.</li> <li>It makes me more interested in taking that course.</li> <li>The best of both worlds. Halfsies. Not having to leave my bed as much.</li> </ul>

Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
	<ul style="list-style-type: none"> <li>the best of both worlds.</li> </ul>	<ul style="list-style-type: none"> <li>I think it's a great idea because with completely online classes you don't get any real face to face interaction with other students and the professor so this provides a good balanced option.</li> </ul>
	<ul style="list-style-type: none"> <li>I think of a well balanced "best of both worlds" situation. I do occasionally feel the wave of overwhelm at the thought that the "hybrid" nature makes students feel they can get me 24-7. The minute you include a technology component they think you are open for the business of education at all hours.</li> </ul>	<ul style="list-style-type: none"> <li>Take advantage of the best features of both face-to-face and online learning.</li> </ul>
	<ul style="list-style-type: none"> <li>We need to work hard lot as we have very less interaction with the instructor, and we learn more things on our own without the support of faculty. It is a easy way to adopt skills from home. It provides sufficient time to learn things. It is very helpful in every way.</li> </ul>	<ul style="list-style-type: none"> <li>Blended in my mind mashes two classes together. While it is technically one class, in my experience of hybrid classes I felt it was like two classes where I learned a lot in both classes.</li> </ul>
	<ul style="list-style-type: none"> <li>courses that combine online and in-person aspects; the best of both worlds</li> </ul>	<ul style="list-style-type: none"> <li>The best of both worlds.</li> </ul>
		<ul style="list-style-type: none"> <li>When I hear the term "hybrid learning", the image of a dynamic and modern classroom comes to mind. Not only in the sense that there will be more resources available to me as a student, but also that classes are becoming adaptable and available to a wider variety of other students, each with unique schedules, talents, challenges and perspectives.</li> </ul>



Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
		<ul style="list-style-type: none"> <li>I think of a mixture of face to face and online learning. Because of the word hybrid It brings to mind a newer element of learning rather than typical face to face.</li> </ul>
		<ul style="list-style-type: none"> <li>I think of using technology to further advance my education. I think of embracing the changes in this century and fully utilizing the tools I have access too.</li> </ul>
		<ul style="list-style-type: none"> <li>I think, more open class. Same amount of work with more time to do it. Atleast feels that way. Able to work at my pace and still able to interact with professors.</li> </ul>
		<ul style="list-style-type: none"> <li>The best of both worlds.</li> </ul>
<i>Disconnect/Challenging</i>	<ul style="list-style-type: none"> <li>I am afraid the students may look at it as an opportunity to come to class when they feel like it.</li> </ul>	<ul style="list-style-type: none"> <li>That the instructor prefers to "work at home".</li> </ul>
		<ul style="list-style-type: none"> <li>I thought it the class would be harder and shorter.</li> <li>Last resort.</li> <li>I think learning online</li> <li>More work</li> </ul>

Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
		<ul style="list-style-type: none"> <li>I had not heard of a course like this before while I've been in school. I have a disability since I've received a head injury. It is a bit harder for me to understand things that are online. Meeting the instructor and having face-to-face contact, really helped me.</li> </ul>
		<ul style="list-style-type: none"> <li>I think of a hybrid class, if I could choose all my classes for online I would. Unfortunately that's not always an option so I settle for hybrid.</li> </ul>
		<ul style="list-style-type: none"> <li>The only "hybrid" program that I have experience with is my current program of nursing training at the Maricopa Community College system. This program is clearly still being developed and adapted (I would not say being "perfected") as we are matriculating through the program.</li> </ul>
		<ul style="list-style-type: none"> <li>I immediately think, "Easy A!"</li> </ul>
		<ul style="list-style-type: none"> <li>easier to keep track of what is due when and what we are doing in class for the week because i can pull the class site up and see it whenever i want to.</li> </ul>
		<ul style="list-style-type: none"> <li>I though it would mean I would have two different teachers like one for lab and one for lecture</li> </ul>
		<ul style="list-style-type: none"> <li>I think it faster class and that means more work but as I haven't taken these classes I have learned it doesn't mean more work.</li> </ul>
		<ul style="list-style-type: none"> <li>First thing that comes to my mind is "I don't want to be a part of that." I am a hands on, in person learner and anything on the computer is difficult for me to understand compared to in class.</li> </ul>
		<ul style="list-style-type: none"> <li>That there is no face to face teacher</li> </ul>

Table II: Faculty E1/Student D1

**Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?**

Trend/Theme	Faculty Response (E1)	Student Response (D1)
<i>General</i>	<ul style="list-style-type: none"> <li>• pushing all the responsibilities on student and not instructor....not much better than self taught</li> <li>• i feel like its more work and more time consuming.</li> <li>• I would rather not take the course , you get education from being in the classroom point blank!!</li> <li>• Hearing "hybrid" makes me think I would have optional time with the instructor.</li> <li>• While I enjoy having the electronic resources available to me 24 hours a day and being able to review the materials frequently to strengthen my understanding, I am concerned that there seems (in my opinion) to be poorly defined expectations of the student's competency of online materials.</li> <li>• Still primarily online course work</li> <li>• Less time in the class room. Don't really know what the term blended means, thought it meant something else. More time for me to learn on my own.</li> <li>• Another way to forget about assignments, because they are "posted" instead of told to you in person.</li> <li>• When I hear the term hybrid I think that the class will involve a lot of internet assignments.</li> </ul>	

Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
		<ul style="list-style-type: none"> <li>It means I'm paying the same price for less teacher involvement. It also means that the teacher feels there's not enough class time to complete all the tasks so part of the objectives have to be done away from the classroom environment (labs for example). It also means I may not get my money's worth so I have to send the teacher an email and ask how the course will be structured. It also means I'll ask for a copy of the syllabus so that I know in advance what my and my teachers responsibilities will be before paying my money &amp; investing my time.</li> </ul>
		<ul style="list-style-type: none"> <li>online classes and more expensive</li> <li>I did not have any thoughts because I did not know what it meant.</li> </ul>
		<ul style="list-style-type: none"> <li>I didn't exactly know what I was getting myself into when I signed up for a "blended or hybrid" class. I thought the class was going to be much more challenging, due to having less face to face time with the instructor. The class turned out to be not so bad.</li> </ul>
		<ul style="list-style-type: none"> <li>Sounds interesting to learn from the computer</li> <li>At first is learning on my own on my time without a teacher</li> </ul>
		<ul style="list-style-type: none"> <li>I think of a class that for science is maybe the lecture being in person and the lab being online. (That is what I'm doing in one of my classes right now). I also think of more freedom/flexibility and it makes it easier for working while in school due to the fact that I'm not required to sit in a classroom.</li> </ul>

Table II: Faculty E1/Student D1

## Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
		<ul style="list-style-type: none"> <li>The course will be much harder than you think because a person will not have as much face time with a professor and the course is generally moving at a faster pace.</li> </ul>
		<ul style="list-style-type: none"> <li>It's okay.</li> </ul>
		<ul style="list-style-type: none"> <li>I don't enjoy hybrid classes</li> </ul>
		<ul style="list-style-type: none"> <li>I don't like it, but that is how the courses related to obtaining my degree are structured.</li> </ul>
		<ul style="list-style-type: none"> <li>It means having your hand held in the learning process.</li> </ul>
		<ul style="list-style-type: none"> <li>I generally think the word hard. It may gust be my style of learning but I feel I learn a lot better when I am in the class room, with an instructor, more.</li> </ul>
		<ul style="list-style-type: none"> <li>It's a way for people to be more active on the computer</li> </ul>
		<ul style="list-style-type: none"> <li>Online for students who don't have that much time</li> </ul>
		<ul style="list-style-type: none"> <li>Leading edge techniques and growing quickly on a global scale. On the flip side experimental and a little unstable structure.</li> </ul>
		<ul style="list-style-type: none"> <li>One has to be computer literate, and dedicated to the course in order to succeed.</li> </ul>
		<ul style="list-style-type: none"> <li>In terms of education, when I hear the term "blended" or "hybrid," I think of a course requiring a little more attention and self-motivation. I prefer some hybrid courses over others, because I like the combination of online and in-person communication, but sometimes the word "hybrid" has a bad connotation for me because I personally prefer learning face to face in most situations.</li> </ul>

Table II: Faculty E1/Student D1

Faculty E1/Student D1. What do you think of when you hear the term "blended or hybrid" learning as it relates to education?

Trend/Theme	Faculty Response (E1)	Student Response (D1)
		<ul style="list-style-type: none"> <li>• it was hard at first but after a while it got easier.</li> <li>• Less in-class time required</li> <li>• Faster pace</li> <li>• I am not thrilled, I feel I do better in a classroom setting.</li> <li>• Learning new things face to face, but I also have to put in effort to teach myself. I need to be very organized.</li> <li>• lots of homework.</li> <li>• I think that it means that the class will be either harder or easy, yet its in between.</li> </ul>

Table I2: Faculty E2/Student D2

Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.	Faculty	Students
<b>Trend/Theme</b>		
<b>Flexibility</b>	<ul style="list-style-type: none"> <li>The student demographic that I instruct have requested hybrid learning opportunities to better juggle an educational with personal demands, such as working and childcare.</li> <li>To provide scheduling flexibility for students, potentially attracting more students by accommodating their busy lifestyles.</li> </ul> <p>(Also to save resources and free up classroom space, which is very limited at certain times of the day.)</p> <ul style="list-style-type: none"> <li>The initial reason was to both free up classroom space and to allow me more time to teach an extra class.</li> </ul>	<ul style="list-style-type: none"> <li>I like to be challenged. Its more beneficial to me personally also because I have a family with three children and the hybrid class allows me to home extra days out of the week.</li> <li>because of the flexibility</li> </ul>
	<ul style="list-style-type: none"> <li>Time. The students complained of the lengthy on-campus time for my lecture/lab class. The hybrid aspect allows the students to manage their own time and complete the lecture portion at home.</li> <li>I know how popular these classes are with the students because they fill up the fastest so when I was offered the opportunity to teach one I eagerly accepted.</li> <li>My classes easily allow students to do some activities outside of class so students don't have to have as much seat time.</li> </ul>	<ul style="list-style-type: none"> <li>I took hybrid classes because they're flexible courses.</li> <li>I had just had a baby and the hybrid nursing program was introduced. It allowed me to go to school and get my education while not having to leave my babies every day.</li> <li>Flexibility and more time saved without having in-person classes twice a week.</li> <li>Flexibility</li> </ul>

Table I2: Faculty E2/Student D2

**Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.**

Trend/Theme	Faculty	Students
	<ul style="list-style-type: none"> <li>It was optimal for the condensed hours on campus</li> </ul>	<ul style="list-style-type: none"> <li>I personally like online classes but hybrid classes are nice to be able to be in class once a week to know the professor and what he/she requires and being able to turn things in online.</li> </ul>
	<ul style="list-style-type: none"> <li>Students do not want to spend as much time in a brick-and-mortar environment that traditional colleges tend to provide, so teaching hybrid classes have allowed students the ability to get the benefits of face-to-face interaction with instructors and peers as well as allowing them to get the time benefits of online learning.</li> </ul>	<ul style="list-style-type: none"> <li>Balance of both online and offline schooling</li> </ul>
	<ul style="list-style-type: none"> <li>In retailing and merchandising the students are almost all working in an industry that changes work schedules often. The student may not work the same days each week. With online or hybrid the student can easily arrange their work schedule.</li> </ul>	<ul style="list-style-type: none"> <li>Flexibility</li> </ul>
	<ul style="list-style-type: none"> <li>flexibility of scheduling for me and my students</li> </ul>	<ul style="list-style-type: none"> <li>Expense of time and travel</li> </ul>
	<ul style="list-style-type: none"> <li>Partly in order to more effectively schedule classes in the evening. Meeting at least once a week was a huge advantage over being purely online, and the students I get make it clear they prefer either face to face or hybrid, but can not take classes during the day, so my evening classes work out well for them.</li> </ul>	<ul style="list-style-type: none"> <li>Makes it easier on personal life such as travel, and more time to do homework.</li> </ul>



Table I2: Faculty E2/Student D2

**Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.**

**Trend/Theme**

**Faculty**

**Students**

- It is flexible, and allows to study according to our availability. We can access from any place like for example from home, office, etc. We are provided with minimum one week time to complete assignments. Cost of commute is saved. We can share our perception without hesitating as it is from home. We learn lot of computer based skills and more.
- decreased class time
- I decided to take a hybrid class because it worked well with my schedule.
- because of my schedule
- work schedule
- In order to maintain between work, school and my social life as well as my personal life.
- kids, and scheduling issues
- My schedule does not allow me to take all the classes that are required for my degree on campus. Hybrid classes allow me more flexibility.
- Honestly? That's what worked for the course I needed and my schedule.

Table I2: Faculty E2/Student D2

**Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.**

**Trend/Theme**

**Faculty**

**Students**

- They fit in well with my schedule. I get the in-class time that I feel is appropriate to build a relationship with the instructor, but I get to organize and see my progress of the class online.
- It allows me to not be in class for so long.
- At first, i thought it would give me more time at home to spend with my kids but I worked so much more at home.
- Time
- I like that we only meet once a week, I have access to the instructor so I don't have to worry about an invisible teacher and I also can manage my time outside of class.
- Schedule flexibility being the main reason
- I am horrible at keep track of schoolwork and dates when I take an online only class, and I work full time so the shorter amount of in class time allows me to still take a full schedule at school
- I decided to take a hybrid class to utilize my time, but not sacrifice my learning experience.
- I work as well as go to school, I needed a course that didn't take to much of my in-person time.

Table I2: Faculty E2/Student D2

## Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.

## Trend/Theme

## Students

- I choose to take hybrid classes to reduce my travel time, money on gas, and the flexibility of getting work done at home.
  - Fits into my full time work schedule
- 
- I am an adult, married, with children. Hahaha. On a serious note, I need the hybrid classes to function as a business owner and a mother and a wife.
  - It helps better in having "time consuming" to get assignments done.
  - I didn't realized this was a hybrid class but a reason I would take a hybrid class is because it allows me more personal time while still keeping me connected to whats going on in class.
  - My humanities class is hybrid and I knew what exactly I was getting into when choosing my own classes. Since it was my first year in college, I felt my schedule would be too stressful if I chose just in-person classes, so I decided to balance it by adding a hybrid classes. Personally, I felt hybrid classes was like a preview to online classes, where some assignments were due in class or online. I enjoyed it and hopefully in the future I will take an online class and by then taking a hybrid class will prepare me for it.
  - Time best suited me

Table I2: Faculty E2/Student D2

**Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.**

Trend/Theme	Faculty	Students
		<ul style="list-style-type: none"> <li>• I like the flexibility of doing it on my own time yet also being able to go to class to ask any questions about the assignments.</li> </ul>
		<ul style="list-style-type: none"> <li>• It allows flexibility when scheduling work hours as well as class time.</li> </ul>
		<ul style="list-style-type: none"> <li>• i decided to take this class because of my work schedule and travel distance from class and home.</li> </ul>
		<ul style="list-style-type: none"> <li>• I was considering about going into law school.</li> </ul>
		<ul style="list-style-type: none"> <li>• Flexibility and the ability to be able to do some of the course online.</li> </ul>
		<ul style="list-style-type: none"> <li>• convenience</li> </ul>
		<ul style="list-style-type: none"> <li>• I have decided to take a hybrid class because I live over 45 minutes away from campus.</li> </ul>
		<ul style="list-style-type: none"> <li>• My work schedule</li> </ul>
		<ul style="list-style-type: none"> <li>• Working hours.</li> </ul>
		<ul style="list-style-type: none"> <li>• allows me to do more with my time outside of school</li> </ul>
		<ul style="list-style-type: none"> <li>• Time management, have more time to explore more on my own and also time to do other stuff</li> </ul>

Table I2: Faculty E2/Student D2

Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.	Faculty	Students
		<ul style="list-style-type: none"> <li>• I chose to take a hybrid course to allow more time with my newborn son.</li> </ul>
		<ul style="list-style-type: none"> <li>• Works better with my other courses and work schedule.</li> </ul>
		<ul style="list-style-type: none"> <li>• They best fit with my work schedule.</li> </ul>
		<ul style="list-style-type: none"> <li>• I can still be home with my children part of the time.</li> </ul>
		<ul style="list-style-type: none"> <li>• Flexibility with assignments and modules.</li> </ul>
		<ul style="list-style-type: none"> <li>• freedom of having to be in school whole time</li> </ul>
		<ul style="list-style-type: none"> <li>• The convenience and it was easy to fit into my schedule.</li> </ul>
		<ul style="list-style-type: none"> <li>• To take in my own time. I can do classes in between other classes</li> </ul>
		<ul style="list-style-type: none"> <li>• I was able to reduce my time in class. I able to manage school and other activities im involved in.</li> </ul>
		<ul style="list-style-type: none"> <li>• More convenient to full-time work schedule</li> </ul>
		<ul style="list-style-type: none"> <li>• I was hoping it was an every other week meeting course.</li> </ul>

Table I2: Faculty E2/Student D2

**Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.**

Trend/Theme	Faculty	Students
		<ul style="list-style-type: none"> <li>It allows me to work around my own schedule. It's convenient when working full time.</li> </ul>
		<ul style="list-style-type: none"> <li>I chose a hybrid class due to my work schedule being very hectic. I'm an independent contractor. It requires much planning and room for last minute changes to deal with an open schedule.</li> </ul>
		<ul style="list-style-type: none"> <li>I wanted to try it at least once</li> </ul>
		<ul style="list-style-type: none"> <li>I live over an hour away from school by bus, so this helped reduce travel time.</li> </ul>
		<ul style="list-style-type: none"> <li>When I was registering for classes for this semester, I was also searching for a job. Because of this, I wanted to keep my physical schedule as available as I could so that I would be able to work whatever schedule I was asked. I knew (or, rather, hoped) that I would be able to frame the rest of my schedule around school, as needed.</li> </ul>
		<ul style="list-style-type: none"> <li>I took it because I didn't want to go to school for one class for more than two days a week.</li> </ul>
		<ul style="list-style-type: none"> <li>I decided to take a hybrid class because of my crazy life. Between school, work, family, I needed the flexibility it offered. I also wanted to take it as a precursor to an all online class.</li> </ul>
		<ul style="list-style-type: none"> <li>TO fit and finish making my schedule.</li> </ul>

Table I2: Faculty E2/Student D2

**Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.**

**Trend/Theme**

**Students**

- I decide to take hybrid classes because I feel comfortable with the subject at hand to be able to work out problems on my own at my own pace without being slowed down.
- time, i dont have all day for classes so the hybrid model offered more time management then usual. and still had the face to face interaction of normal classes.
- Freed up time. Online quiz are easier
- Due to my packed schedule
- Because of my job situation.
- It was convenient to work into my schedule.
- I am an older student with children that I raise on my own. Made sense to keep childcare cost down, and to further my pursuit in education.
- To free up some time during my busy week.
- Hybrid classes is a great way to integrate technology efficiently to save on traveling costs time and money for the student.
- Well with my work schedule I could only take the in class lecture Tuesday Thursday class and I was forced to take the online hybrid lab. I did not really have a choice in the matter

Table I2: Faculty E2/Student D2

**Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.**

Trend/Theme	Faculty	Students
		<ul style="list-style-type: none"> <li>• My time is limited at school because I work and my shifts can start as early as 3, so the hybrid class helped with time management.</li> <li>• I needed more time for work schedule.</li> </ul>
		<ul style="list-style-type: none"> <li>• My travel time to school is over an hour and taking an hybrid class saves me more time and I can utilize that time for my studies or work as needed.</li> <li>• One less day I have to drive to campus</li> </ul>
		<ul style="list-style-type: none"> <li>• I need to be able to work at a job I actually like.</li> </ul>
		<ul style="list-style-type: none"> <li>• Time flexibility and access to lecture and course material from day 1. I have been attending classes of and on for the past 20 years, and my ability to access the instructor and course material is, by far, much better than it was in 1994. Some classes we too large to ask questions in class, or office hours were always during times when I couldn't meet. Now I can email and ask specific questions and I usually have an answer within hours. The entire course structure is also laid out with all the needed reading material posted for me to read in advance and ask better questions during the time I am actually in class. The majority of my hybrid courses are all in computer science related areas, so I am able to adapt to hybrid courses better than in class lectures.</li> </ul>



Table I2: Faculty E2/Student D2

Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.	
Trend/Theme	Students
	<ul style="list-style-type: none"> <li>• Flexibility</li> <li>• My work and personal lives are very taxing and hybrid classes offer me a chance to work outside of class.</li> <li>• More time to do other necessary chores around home.</li> <li>• I decided to take a hybrid class to save time because the labs along with lecture were so long.</li> <li>• Lack of time available</li> </ul>
<b>Multi-Modal (Expanded Class Options)</b>	
	<ul style="list-style-type: none"> <li>• The 1 course I teach used to be online but was the 2nd in a sequence of courses that were always taught face-to-face. I started offering optional in-person labs which were highly attended and eventually morphed into a mature hybrid format.</li> <li>• Thought it would be a good way to interact one-on-one with students during class.</li> </ul>
<b>Promote Student Learning</b>	
	<ul style="list-style-type: none"> <li>• I thought I can gain more knowledge through a hybrid course</li> <li>• i want to open my eyes to learn more information.e</li> <li>• It's for my interior design class and I do get overwhelmed so not having to go into class ALL the time is helpful and I still get work done at home.</li> </ul>

Table I2: Faculty E2/Student D2

Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.		
Trend/Theme	Faculty	Students
	<ul style="list-style-type: none"> <li>• It allows those students that are shy in class an opportunity to express themselves</li> <li>• Holds student responsible for preparing for face-to-face class sessions. Face-to-face classes are more meaningful when the student "brings something to the table."</li> <li>• I think it is a way to get the best of both worlds in a hybrid environment. I can have students write materials online, which frees the class time for discussion about difficult concepts from the readings.</li> <li>• I enjoy both modalities, and I think this is the best of both worlds.</li> <li>• Initially because I was asked to do so by my supervisor. I continue to do so as I feel (for the students who understand the expectations of a hybrid course and complete the required work outside of class) that I am able to engage the students in a higher level of activity/discussion in-class and a deeper learning and understanding of the topic.</li> <li>• It created a balance between what is presented in the class and content that is easily or better provided online. In-class time is better used to engage students in learning activities, rather than lecture time.</li> <li>• I believed a large amount of review content could be "off-loaded" online in order to free up in-class time for richer discussions and activities that would allow students to study topics more deeply.</li> </ul>	<ul style="list-style-type: none"> <li>• It gave me the ability to maintain my full time job and also challenged me, as a student, to become more responsible on my own without an instructor needing to push me.</li> <li>• I wanted more interaction with the teacher to get a faster response when I have questions and to go over course material to make sure I am on the right track.</li> <li>• Need some face-to-face interaction with instructor and classmates but do not have the desire to attend a traditional seated classroom</li> <li>• The world is heading to a silicon age and I need to keep up.</li> <li>• To see if it would help me learn in a different way/help me.</li> <li>• I like to do things on my own but if I should need help, I know my instructor is there.</li> <li>• The time frame it was offered and totally online classes miss the face to face with instructor and I need that for math &amp; science classes especially. I would prefer it for all classes.</li> </ul>

Table I2: Faculty E2/Student D2

Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.	
<b>Trend/Theme</b>	<b>Students</b>
<ul style="list-style-type: none"> <li>• I would like to see the students taking more responsibility for their learning instead of relying only on lectures for information.</li> <li>• Thought it would be a good way to interact one-on-one with students during class.</li> </ul>	<ul style="list-style-type: none"> <li>• Online classes are easy for me.</li> </ul>
<b>Scheduling/Availability</b>	
<ul style="list-style-type: none"> <li>• Department pressure to offer hybrid courses.</li> <li>• My normal Fall semester class was changed to a hybrid class. Basically, I had no choice if I wanted to teach.</li> </ul>	<ul style="list-style-type: none"> <li>• It was for the nursing program</li> <li>• The class was only offered in a hybrid course.</li> </ul>
	<ul style="list-style-type: none"> <li>• I could not find a on campus class that fit my schedule.</li> </ul>
	<ul style="list-style-type: none"> <li>• I didn't know it was hybrid otherwise I never would have the teacher sucks.</li> </ul>
	<ul style="list-style-type: none"> <li>• That was the only one that was provided for my classes. I would have liked a face-to-face class because of my disability but that was not an option.</li> </ul>
	<ul style="list-style-type: none"> <li>• I needed the math credit and I heard the teacher was good</li> </ul>
	<ul style="list-style-type: none"> <li>• It was set by the Professor as a hybrid class</li> </ul>

Table I2: Faculty E2/Student D2

## Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.

## Trend/Theme

## Faculty

## Students

- I prefer online (except in the case of music performance classes) but sometimes hybrid is the only option. Would be great if the on campus portion of the hybrid classes was optional if a students grade was above a certain percentage. I sleep during most of my hybrid class because it's early in the morning and I've already completed the homework/tests of subjects before they're discussed in class. Showing up feels like a waste of time unless I have questions for the instructor, which I haven't had yet.
- i did not choose to, it was a requirement
- I like that I am in the classroom but it isn't as much as I would be for a regular class. The online classes work best for me but with hybrid I know the instructor and other classmates.
- Because they weren't offered fully online.
- The hybrid program allowed me to enter into MCC nursing without waiting a 5th semester on the waiting list- and was all that was offered to me in Fall 2013.
- It was the only classes available
- Times the class was offered fit into my schedule and I knew I wouldn't be able to understand all of the content completely online that I would need to be able to speak with the instructor face to face to understand the concepts of this class.

Table I2: Faculty E2/Student D2

**Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.**

Trend/Theme	Faculty	Students
		<ul style="list-style-type: none"> <li>I had no choice but to take it, it was not offered any other way.</li> </ul>
		<ul style="list-style-type: none"> <li>For my BIO 160 class, it was the only class that was open. For my English class I took it online because I am a little shy and don't like speaking in front of a class full of people so that took that aspect away and I am a lot more comfortable in it.</li> </ul>
		<ul style="list-style-type: none"> <li>I don't have a choice a majority of my classes that are required for my degree are hybrid. I think that is the most ineffective way of learning.</li> </ul>
		<ul style="list-style-type: none"> <li>This was the only choice I had in the class.</li> </ul>
		<ul style="list-style-type: none"> <li>The most important reason why I took a hybrid class, was that a hybrid class it was the class only available for the course I needed.</li> </ul>
		<ul style="list-style-type: none"> <li>It was the only class available.</li> </ul>
		<ul style="list-style-type: none"> <li>It was the only option for my ASL course</li> </ul>

- It (MCC - CNT205) is only taught once a year and there was no acceptable alternative class available at a different school. The course that I took was approximately 2/3 lecture and 1/3 lab time for the most part. Labs could be done in class or at home.

The other schools (within the same school system) either didn't have the required equipment or did not TEACH the course at all. They were just present for labs . One teacher supervising lab time for 5 or 6 different courses during the same 4 hour time slot without instruction. You can do whatever you feel like or nothing at all. This is definitely not worth my hard earned money.

See <http://classes.sis.maricopa.edu/index.php> South Mountain or Chandler Gilbert CNT 202 and CNT 205 setup for an example.

Chandler Gilbert disclaimer: [This course is part of our CISCO lab learning program. Other CISCO lab courses will be offered in the same classroom at the same time.]

South Mountain disclaimer: [This section is part of our Networking Lab-Based Learning (LBL) class and includes the following courses: CIS190, MST140, MST150SV, MST157DA, CNT202 and ITS110. Students in this LBL class complete a variety of labs, read/study the textbook/LabSim and complete assignments/quizzes in Canvas and/or LabSim. Courses in this Lab-Based Learning class are offered in the same classroom at the same time. This section may be taken online with the permission of the instructor.]

Table I2: Faculty E2/Student D2

Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.	Faculty	Students
Trend/Theme		
		<ul style="list-style-type: none"> <li>• because it's all that is offered</li> </ul>
		<ul style="list-style-type: none"> <li>• It was only way the class was offered.</li> </ul>
		<ul style="list-style-type: none"> <li>• Because it was the only option for the class.</li> </ul>
		<ul style="list-style-type: none"> <li>• the only way the class is designed</li> </ul>
		<ul style="list-style-type: none"> <li>• Availability</li> </ul>
		<ul style="list-style-type: none"> <li>• They were required.</li> </ul>
		<ul style="list-style-type: none"> <li>• It counted as my honors credit.</li> </ul>
		<ul style="list-style-type: none"> <li>• it was the only class that was open during my busy schedule.</li> </ul>
		<ul style="list-style-type: none"> <li>• My was schedule I didn't have a choice due to the time I needed.</li> </ul>
		<ul style="list-style-type: none"> <li>• Time the class was available did not work for me. Online lecture was my only option.</li> </ul>
		<ul style="list-style-type: none"> <li>• It was the only thing that was available</li> </ul>

Table I2: Faculty E2/Student D2

**Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.**

Trend/Theme	Faculty	Students
		<ul style="list-style-type: none"> <li>Regular class was cancel</li> </ul>
		<ul style="list-style-type: none"> <li>It was what was offered, and I knew I could manage it.</li> </ul>
		<ul style="list-style-type: none"> <li>I was placed in this program randomly (at least to my knowledge). Deferring would have put me back at least six months from where I would like to be.</li> </ul>
	<p>I recently completed some other online courses, so the thought of this hybrid class did not deter me. This also allowed me some flexibility to work and provide childcare to my kids.</p>	
	<ul style="list-style-type: none"> <li>It was the only option available for the class. I wasn't even aware I signed up for hybrid until the first day of class.</li> </ul>	
	<ul style="list-style-type: none"> <li>Because of the specific teacher. My first hybrid class was horrible for me. My teacher was great and really really helped me but when it comes to trying to learn math online it is very challenging although it can be accomplished.</li> </ul>	
	<ul style="list-style-type: none"> <li>It was only offered this way</li> </ul>	
	<ul style="list-style-type: none"> <li>because that was all that is offered for certain classes that i need.</li> </ul>	
	<ul style="list-style-type: none"> <li>I had no choice it was what was offered</li> </ul>	



Table I2: Faculty E2/Student D2

**Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.**

Trend/Theme	Faculty	Students
<b>B11 Access to Materials</b>		<ul style="list-style-type: none"> <li>Honestly I just wanted to get into the program and the hybrid program offered another way to get in.</li> <li>It was all that was offered for the paramedic-rn bridge</li> </ul>
<b>Unknown Modality</b>		<ul style="list-style-type: none"> <li>It was the only one available in my prerequisite classes.</li> <li>Only option, didn't know exactly how it worked at first but didn't want to wait any longer for traditional</li> <li>I enjoy having access to all material, grades, and instruction available to me online.</li> <li>Actually didn't know it was a hybrid class at first</li> </ul>
		<ul style="list-style-type: none"> <li>I didn't realize it was a hybrid class until the instructor contacted me prior to the beginning of the semester. So, I didn't decide to take it, I just accepted the fact that it was hybrid.</li> <li>Honestly, I did not know what I was getting into when I first started. But, I have learned a lot so far and enjoy learning .... I am looking forward to more of this type of class.</li> <li>It was by accident, but I think I am enjoying this a ton more than just in class classes</li> <li>I didn't know my classes were hybrid.</li> </ul>

Table I2: Faculty E2/Student D2

## Faculty E2/Student D2. Please share one important reason why you decided to teach (faculty) or take (student) hybrid classes.

Trend/Theme  
Faculty

## Students

- I did not mean to take a hybrid class but now I feel like trying all online classes for next semester.
- I didn't know it was a hybrid class
- I didn't was told after I was in the class!!
- When I enrolled for the only hybrid class I have ever taken, I didn't know it was a hybrid class, so I have no specific reason for deciding to take it. If I had known it was a hybrid class beforehand, I still would have taken it, because I knew I'd have liked to see what hybrid classes are and if they work for me.
- i didn't know i was taking a hybrid class.
- Honestly I had no idea this was a hybrid course until the first day of class. I wasn't as observant as I should have been. I don't regret registering for an hybrid class because it helps me personally with the stress of being at school and finishing it there and then. With the hybrid course I can sit at home and go at my own pace.

Table 1e: Faculty E3/Student D3

**Faculty E3/Student D3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.**

Trend/Theme	Faculty	Student
<b>B1a Flexibility</b>	<ul style="list-style-type: none"> <li>Some students cannot come to school two or three times a week to take a class, and initially enrollment in hybrid classes jumped to a very high level. Once a week was ideal for some students. I don't know if that enrollment statistic is still the case....</li> <li>Gives them options and flexibility</li> <li>I know the military uses these as my son did some while in Afghanistan--work could be done when they return and some online.</li> </ul>	<ul style="list-style-type: none"> <li>It provides me a means of balancing work, study, and school while getting creative in how I retain all the information.</li> <li>You can work at your own pace when the teachers open assignments.</li> <li>The only benefit is that it is flexible for busy schedules.</li> <li>Everyone that I spoke with really liked the Hybrid classes where they could direct their own time.</li> <li>hybrid courses allow students to take the time they need at home to take care of some work, freeing up class time for interaction and group projects</li> <li>Efficiency of time</li> <li>We could do work at home or anywhere else possible where there is access to computers.</li> <li>It is really convenient for college students because a lot of college students work while in school. This opened my schedule availability a lot and allowed me to work a lot more while going to school and every college student loves extra money!</li> <li>Helps students get back on track/school if they were concerned because of not having time</li> </ul>

Table 1e: Faculty E3/Student D3

Faculty E3/Student D3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.

Trend/Theme	Faculty	Student
		<ul style="list-style-type: none"> <li>Hybrid courses are great to accommodate to be able to take more classes instead of running into schedules that may or may not overlap or scheduled at the same time.</li> </ul>
		<ul style="list-style-type: none"> <li>This class allows me to go at my own pace.</li> </ul>
		<ul style="list-style-type: none"> <li>I enjoy being able to go between both classes and work it made my life easier ..</li> </ul>
		<ul style="list-style-type: none"> <li>I understand how students have so much priorities in their hands such as children,work, studying for other classes, and hybrid classes can ease the stress. Normally, in hybrid classes, assignments can be submitted within a week period and it's awesome how all students don't have to turn in an assignment simultaneously.</li> </ul>
		<ul style="list-style-type: none"> <li>Some benefits are that you as a student can study and do reserch in the comfort of your own home and not feel uncomfortable to ask questions in person.</li> </ul>
		<ul style="list-style-type: none"> <li>Working at my own pace within a somewhat restricted time frame given by Instructor.</li> </ul>
		<ul style="list-style-type: none"> <li>You don't have to come to class as much, which is good if you work.</li> </ul>
		<ul style="list-style-type: none"> <li>good for those that learn at their own pace</li> </ul>
		<ul style="list-style-type: none"> <li>Better for time management</li> </ul>

Table 1e: Faculty E3/Student D3

Faculty E3/Student D3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.

Trend/Theme	Faculty	Student
		<ul style="list-style-type: none"> <li>• Convenient</li> </ul>
		<ul style="list-style-type: none"> <li>• Flexibility.</li> </ul>
		<ul style="list-style-type: none"> <li>• The student spends less time at school.</li> </ul>
		<ul style="list-style-type: none"> <li>• A student that takes a hybrid class still has an opportunity to be in a classroom setting, but not as much. I don't mind going to a class once a week.</li> </ul>
		<ul style="list-style-type: none"> <li>• Better management of having schooling and working full-time</li> </ul>
		<ul style="list-style-type: none"> <li>• Flexibility in course scheduling</li> </ul>
		<ul style="list-style-type: none"> <li>• There is no specific time you have to go into class so you wont sleep-in.</li> </ul>
		<ul style="list-style-type: none"> <li>• Its almost relaxing to do the studying at home. As long as you have a set space to study and focus.</li> </ul>
		<ul style="list-style-type: none"> <li>• I love the fact that for the most part I am in control of my own schedule.</li> </ul>
		<ul style="list-style-type: none"> <li>• You can work ahead if you want.</li> </ul>
		<ul style="list-style-type: none"> <li>• increased lesure time for homework and work.</li> </ul>
		<ul style="list-style-type: none"> <li>• benefit would be getting to learn and work at your own pace.</li> </ul>

Table 1e: Faculty E3/Student D3

**Faculty E3/Student D3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.**

Trend/Theme	Faculty	Student
		<ul style="list-style-type: none"> <li>The structure of the course allows the student to work at their own pace within the guidelines of work completion. Students are introduced to concepts through online activities and then are given the chance both online and in class to solidify concepts with the instructor.</li> </ul>
		<p>The Canvas program allows me to see my grades and evaluate my progress as I go.</p>
		<ul style="list-style-type: none"> <li>Gave me the ability to work on homework when I had the opportunity in my schedule.</li> </ul>
		<ul style="list-style-type: none"> <li>Allows me to be flexible for work. I'm about to change jobs and it will help me in doing that.</li> </ul>
		<ul style="list-style-type: none"> <li>To have more time to work on assignments.</li> </ul>
		<ul style="list-style-type: none"> <li>Hybrid courses definitely helps students who have transportation problems or disabilities. This way they can participate in the class with the equal chance as others.</li> </ul>
		<ul style="list-style-type: none"> <li>I like that I don't have to be on campus as much, I study better on my own</li> </ul>
		<ul style="list-style-type: none"> <li>You can do exams over the weekend</li> </ul>
		<ul style="list-style-type: none"> <li>Having more time for work and other activities in life. Also being able to do homework whenever and wherever.</li> </ul>

Table 1e: Faculty E3/Student D3

Faculty E3/Student D3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.

Trend/Theme	Faculty	Student
<b>B1B Problem solving</b>	<ul style="list-style-type: none"> <li>Students are starting to form online course study groups. Many of my students have used the discussion board to setup meeting times off campus to meet and work collectively on assignments.</li> </ul>	<ul style="list-style-type: none"> <li>Flexible, with face to face support</li> <li>I can't think of any that aren't addressed in this survey. I believe you have covered them all. Learning how to be more prepared is something that you learn from this type of class.</li> <li>It prepares you to be able to work on your own given little or no information, it prepares one for the real world encounters.</li> <li>The hybrid course helped me to become more responsible in my learning and when to get things done.</li> <li>Allows you to be more independent in your school work</li> </ul>
<b>B1i Access to materials</b>	<ul style="list-style-type: none"> <li>Increased and flexible access to learning content / materials (I think the survey kind of covered this in B1i).</li> <li>Students can access content at any time. Perfect if there are child care or work issues</li> <li>This may have been covered but content online allow the student to repeat/review the content multiple times, before submitting an assignment. Knowing they will see their instructor before an assignment is due fosters improved communication, and enhances learning as well as student confidence.</li> </ul>	<ul style="list-style-type: none"> <li>the on line tutorials</li> <li>I like the online homework because it helps with what we are learning in class.</li> <li>Homework easily accessible, easier to manage and keep track of. Review and practice material on hand. Less paperwork to organize (math class). Instant grading of homework and quizzes. Many different helpful tools.</li> </ul>

Table 1e: Faculty E3/Student D3

Faculty E3/Student D3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.

Trend/Theme	Faculty	Student
<b>Financial</b>		<ul style="list-style-type: none"> <li>I do not believe hybrid courses are as advantageous as the could be. I think students are reared on lecturing for 12 years of school and when it comes to this new learning style it is very hard to get accustomed to it. I have seen many people get frustrated. The one thing that is good about them is the lectures online can be watched as often as we want. That does help when completing homework. Quizzes are also hard because in a normal classroom setting as we have learned for years one little mistake does not cost us so dearly, but with the online quizzes a wrong answer is wrong no matter what. No partial credit hurts, especially with math</li> <li>Saves on gas, don't have to go to school as often</li> </ul>
<b>Multi-modality</b>	<ul style="list-style-type: none"> <li>One of the most illuminating aspects of blended learning was the notion of the "flipped classroom." This is a tremendous help to students when managing their time and understanding what is asked of them in the classroom.</li> </ul>	<ul style="list-style-type: none"> <li>Hybrid courses have many benefits for all types of students because they're customized to tech in a variety of different teaching styles and strategies.</li> </ul>
<b>Online Student Services</b>		<ul style="list-style-type: none"> <li>In hybrid course or for other courses, all services are provided at home itself. I experienced one good benefit i.e. getting advisement through e-mail as I don't have to make trips to meet an advisor. Other benefits are given in the survey</li> </ul>



Table 1e: Faculty E3/Student D3

**Faculty E3/Student D3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.**

Trend/Theme	Faculty	Student
<b>Student Engagement</b>	<ul style="list-style-type: none"> <li>Engagement with students, effective integration of student learning styles and teaching styles</li> </ul>	<ul style="list-style-type: none"> <li>Personal interaction with classmates.</li> <li>More help from teacher</li> </ul>
		<ul style="list-style-type: none"> <li>Hybrid classes give you a chance to have a face-to-face relationship with the instructor versus just communicating through email. I think instructors are more willing to help you if they know you better.</li> </ul>
		<ul style="list-style-type: none"> <li>Provides some interaction with the campus, other students and the instructor.</li> </ul>
		<ul style="list-style-type: none"> <li>it helped me get both experiences of an on campus class and a online class. it was great for my freshman year of college.</li> </ul>
		<ul style="list-style-type: none"> <li>Being able to still have the same amount of communication with your professors as you would in a standard class, even more if that.</li> </ul>
		<ul style="list-style-type: none"> <li>It increases participation because often students can review other students' posts and reply according to that, especially if they agree with some of them. Overall, also participating online gives students more confidence than always participating in person.</li> </ul>
		<ul style="list-style-type: none"> <li>1. Equal mixture of face-to-face and online communication</li> </ul>
		<ul style="list-style-type: none"> <li>2. Demands development of interpersonal and</li> </ul>

Table 1e: Faculty E3/Student D3

Faculty E3/Student D3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.

Trend/Theme	Faculty	Student
		intrapersonal skills
		3. Balances out and varies coursework (so you're not doing the same thing every day)
		<ul style="list-style-type: none"> <li>• Online quiz discuss board make it easier to know your class mates better than in person</li> <li>• It's a more comfortable place to discuss emotionally charged issues online.</li> <li>• I like the announcement board.</li> <li>• I don't know I need to be in a class with a teacher learning</li> <li>• Being able to clearly express questions clearly and understand the answers more clearly. I also really like the interaction of other students and hearing their ideas and perspectives.</li> <li>• The teachers are readily available for help.</li> <li>• I am far more successful in hybrid classes than online only classes.</li> <li>• you encode it better</li> <li>• I suppose the hybrid class could be useful for having more hands-on training. Although I really believe in the power of fully online courses.</li> </ul>
<b>Student Learning</b>	<ul style="list-style-type: none"> <li>• Improves their writing skills</li> <li>• Only the fact that students can be more independent learners and do some activities that in the past had to be done in class.</li> <li>• I think you covered most of them. I think also for motivated learners, it's a wonderful avenue of study and support IF they use it.</li> </ul>	

Table 1e: Faculty E3/Student D3

**Faculty E3/Student D3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.**

Trend/Theme	Faculty	Student
		<ul style="list-style-type: none"> <li>The time used in-class for hybrid courses is delegated to the most important activities. There isn't a lot of 'fluff'. My teacher dedicates certain days to only test review and it really helps me learn the content.</li> </ul>
		<ul style="list-style-type: none"> <li>MCC's CNT205 was managed better in my opinion. Here are the notes from the MCCD Find A Class website: [Class Notes: Class 30310 Hybrid classes combine reduced, regularly scheduled classroom meetings with required learning activities conducted via the Internet. Students enrolling in a hybrid class acknowledge they already possess the skills described in the Minimum Computer and Technology Requirements at <a href="http://www.mesacc.edu/elearning/get-started">www.mesacc.edu/elearning/get-started</a>. Students may contact instructor at: <a href="mailto:jack.files@mesacc.edu">jack.files@mesacc.edu</a>]</li> </ul>
		<p>For this class the breakdown, as I mentioned above, was 2/3 lecture time and 1/3 lab time for students interested in working on labs from class instead of from home. Longer chapters left less time for in class lab time, however. In any case the teacher was always able to answer any questions on any course related matter either in class, during office hours, or right before class or at end of class.</p>
		<ul style="list-style-type: none"> <li>Makes keeping my grade up easier because I only need to keep my grade up for 8-weeks and not 16</li> </ul>

Table 1e: Faculty E3/Student D3

Faculty E3/Student D3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.

Trend/Theme	Faculty	Student
		<ul style="list-style-type: none"> <li>Instant feedback on some types of hybrid homework.</li> </ul>
		<ul style="list-style-type: none"> <li>ability to teach oneself.</li> </ul>
		<ul style="list-style-type: none"> <li>Hybrid course benefits are that it still allows you to work mostly at home and still use the critical thinking skills. I think with the hybrid class it is better because you can confirm that you have a strong understanding of the subject before the tests.</li> </ul>
		<ul style="list-style-type: none"> <li>I could effectively see what was due and how to complete the assignment correctly. What the instructor was looking for out of me.</li> </ul>
		<ul style="list-style-type: none"> <li>With two different professors as the instructors to the hybrid portions, I saw different styles to the work and I learned differently through each one.</li> </ul>
		<ul style="list-style-type: none"> <li>I know I spend more time independently researching some class topics further than I normally would have if the class was lecture only. I think it has something to do with the fact that I am typically at home and already have my computer out in a comfortable location. Now that I think about it, I spend more time studying for my hybrid classes more than I do for traditional courses. Although all my classes are in computer network administration and programming. Technical classes I've found, don't necessarily need as much face time as other subjects.</li> </ul>

Table 1e: Faculty E3/Student D3

Faculty E3/Student D3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.

Trend/Theme	Faculty	Student
<b>General</b>		<ul style="list-style-type: none"> <li>• It is great for those of us that require different amounts of time to go over the material without holding up class time.</li> <li>• My hybrid computer skills class allowed a chance to gradually understand new terms.</li> <li>• The classes go fast but are simple.</li> <li>• for example ESL class</li> <li>• I have not experienced the "traditional" nursing training program at MCC and therefore cannot speak to the hybrid program benefits over the traditional.</li> <li>• Hybrid classes are okay but I just prefer face to face but if it's a language course then hybrid is the best choice for it</li> <li>• I don't find any benefit to talking hybrid courses.</li> <li>• software for programs are extremely sensitive and occasionally crash</li> <li>• avoided the questions about if we being taught by teacher or by self</li> <li>• I believe that they all were covered in the questionnaire.</li> </ul>

Table 1e: Faculty E3/Student D3

Faculty E3/Student D3. Please share any additional examples of hybrid course benefits as course effectiveness factors for students that were not included in the survey.

Trend/Theme	Faculty	Student
		<ul style="list-style-type: none"> <li>I really like the fact, that I know what grade I am getting at all times. My instructor grades quickly and records the grades on Campus. All I have to do is open Campus and see what grade I have. It's great! Seems like you can go through classes faster than 'normal' classes. Also, it has save me gas money.</li> </ul>
		<ul style="list-style-type: none"> <li>just study on be on teacher at all times</li> </ul>
		<ul style="list-style-type: none"> <li>I really do think the survey did a fantastic job of outlining all of the benefits I have experienced with hybrid learning.</li> </ul>
		<ul style="list-style-type: none"> <li>This course gives relief to students in every way</li> </ul>
		<ul style="list-style-type: none"> <li>I believe all that was covered were all the benefits that came to mind for me.</li> </ul>
		<ul style="list-style-type: none"> <li>Safety from traffic. A chance to become familiar with computer technology</li> </ul>

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students
Acceleration		The biggest challenge to students would be to grasp the concepts at an accelerated rate. The teacher doesn't slow the class down. Then it is up to the student to make use of the learning center for extra help or make use of the office hours for the teacher out of class.
Communication		Unable to get assistance at the time you have a question. Just, mentioning my head injury history, there should be more assistance available to the students with a disability. Other than that, there has been a lot of positive comments that I have heard from the other students without disabilities.
Disability services		Additional costs to participate in a hybrid class, need of personal computer or laptop available at home.
Financial		The only one I can really see is scheduling.
Scheduling		Challenges of a hybrid class can be that you have to make sure you can make it to the class because class participation is half the credit so if it may be difficult to go to class at least once a week then it may not be the best choice.
Self-efficacy	Student self-discipline, self-motivation, independent learning styles	many hybrid classes have strict attendance rules and many students can easily be kicked out of them for tardiness and absence.
		Students that don't like autonomy, that need to have supervision on getting things done will not benefit from a hybrid course.
		The drive comes from you. You will be responsible in staying proactive and focused and sometimes that's hard
		students that don't like autonomy, that need to have supervision on getting things done will not benefit from a hybrid course.

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students
		<p>Be prepared to teach yourself and be evaluated for how well you learned from a book. Teachers in my experience are no help unless you are 70% in class and 30% online.</p>
		<p>You fail everything When we are not able to complete an assignment, it is taken as challenge and figured out on our own. If less points are given for any assignment, then it is taken as challenge and as a student I try making it better, because I always prefer good grades and also any student would not Hybrid want their efforts to go in vain.</p>
		<p>Learning on your own with self motivation Meeting once a week is a bit hard to remember what is going on in the week.</p>
		<p>Remembering to be constantly checking for updated information/assignments.</p>
		<p>Lazy students will not be able to keep up with the class and also the class require a lot of efforts and work from the student Honestly, if you don't have the right amount of self-discipline then you really shouldn't take these types of classes. Even though showing up to the class isn't mandatory, you still have to do the work for the class, and its really easy to get behind if you don't.</p>
		<p>NO reminder to finish homework on time If a student requires more assistance in person, a hybrid may be challenging.</p>
		<p>More of a figure it out yourself feel</p>



Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students
Student engagement	<p>Students might not realize that they have to be self-motivating to properly learn the material.</p> <p>Sometimes the information is not well-organized and you have to hunt for information.</p> <p>Not having self discipline is the hardest, but there is the advantage of being able to catch up usually fairly quickly if you get behind. There is a lack of a sense of community/unity even with online class discussions when taking online classes.</p> <p>Your survey has asked the questions regarding this issue, especially reduced access to the instructor for difficult classes.</p> <p>It's a little hard to have to learn the material on your own and not being able to ask questions face-to-face. It takes some professors awhile to respond to questions via email.</p> <p>Limited instructor interaction, and that effective communication with the instructor is not always possible.</p> <p>not having the teacher around all the time causes you to hope that the instructor is constantly checking their emails and will be able to help you in time.</p> <p>This is my first hybrid course and many of the students do not communicate effectively together, only when an assignment is due.</p> <p>The availability of the teacher is not as good as having a face to face class.</p> <p>does the teacher make themselves available to all students before or after class or do some students hog all that time to themselves?</p> <p>The long 4 hour lectures</p> <p>not so much of quick responses as in person would allow</p>	

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students
student learning	<p>Many students struggle with keeping up with assignments, or learning without a teacher present. It can make it difficult if you have a question for the teacher, but they don't respond to emails quickly</p> <p>If you need instant clarification, it is not helpful. Must wait for professor response, could be a few days.</p>	<p>Social interaction for younger students. The vast majority of my classmates are like me, already working full time working on a second or third degree to advance their current career. I started college in 1994 when there really was no internet, as we know it today, to speak of. If I couldn't find the answer in my text book, I was forced to ask as many students and instructors as I could to find the what I was looking for. I learned all my personal interaction skills that I carried into my professional career back then, when everyone was forced to talk to each other face to face. If I had to do it over again with today's technology, I would use hybrid courses for my technology, math, and science classes. I would prefer to take my language, arts, humanities, and social sciences in person.</p>
Subject matter	<p>Our online portion is reading and power points only. There are no interactive activities online. It can be difficult to learn based solely on reading. The classroom portion helps solidly the content.</p>	<p>Higher order skills of critical thinking, problem-solving, and the ability to apply theoretical models to real-world data.</p> <p>I believe there are certain courses that need to be taken in class and some that you can take as a hybrid/online class. I took statistics this semester as my first hybrid course and I regret not taking it in person. The material is just too difficult to not learn in person. We spend most time learning on our own and then talk about the assignments in class.</p>

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students
Technology	<p>They may not be computer aware and may not know how to do the work out of the class. They may not be motivated to complete assignments in a self paced format. Obviously, the biggest challenge that I see for students is knowing how to get started with the online component. Every school seems to have a different method for logging on to the online environment. This is terribly confusing for students. Another challenge for students is managing what is required of them: uploading assignments, submitting files in the correct file formats, finding class discussions, and remembering to check the online environment regularly. As an instructor, I can build in activities and reminders to greatly assist (and remind) them.</p> <p>The technology aspect and time management skills</p> <p>Students frequently experience problems with their Internet connections or library computer availability when they are faced with a deadline for an assignment or exam.</p>	<p>american culture program class concepts might be hard.</p> <p>The challenges for students taking hybrid courses is that if they are unfamiliar with the subject or lacking in the skills of the subject or are new to the concepts presented, it can be extremely difficult to keep up even with some face to face time.</p> <p>Some challenges with hybrid classes are that sometimes the lab books do not cover material that I would see on the quizzes. Also, the lab was also a week ahead of lecture so it was all fresh material in lab which could get confusing.</p> <p>A challenge would be an access to an Internet source with a computer.</p>
		<p>the exaCTNESS OF ANSWER REQUIREMENTS</p> <p>Computer skill may not be good</p> <p>I didn't find any particular challenge in taking the hybrid class as opposed to a tradition face to face class because I am a little more tech-savvy than most students. That being said, I do believe that some students had a little trouble navigating the various platforms that the instructor used.</p>

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students
		computer skills
		<p>Getting to know new software for each new class, every single time is not beneficial. The inconsistencies of the programs used leads to less familiarity with the different forms of help available to maintain success. Most hybrid and online classes have no options for visually impaired students. Much of the online work is hard to see. A lot of time is spent redoing work that was correct but input incorrectly due to the variations in each program's format requirements.</p> <p>Maybe some students do not have access to a computer at home as others may, also some students prefer in class courses suppose to online classes.</p>
		<p>Each of the two semesters we have had so far (Spring 2014, Fall 2014) there have been the same delays and false starts in regards to the correct passwords and course codes that the students needed to gain access to the required electronic materials.</p>
		<p>This not only adds frustration to the student's experience, it also delays our abilities to start our learning (sometimes as long as a week or more).</p>
		<p>I feel that all of the passwords and access codes should be confirmed by the educators and their staff long before we start the course. There needs to be a raised level of professionalism and efficiency. needing to have internet and the</p>
		<p>Must have reliable computer/wifi access. Answers are very sensitive and must be precise.</p> <p>students with limited access to technology</p>

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students

The one major challenge to students taking a hybrid course is the program itself because programs may be down due to routine maintain or something as problematic as a virus or glitch.

People that might not be so computer literate might not do so well in hybrid classes.

Internet connectivity, problems in contacting the helpdesk, ie personnel staffed @ MCC are not very tech savvy.

It can be difficult if you aren't someone that enjoys online. It's a lot of "doing on your own." You must be willing to put in the time and effort since you don't go to actual class very often. There are more assignments due at one time with a hybrid class.

Possible challenges may be not having internet access at home, and having to spend most of your homework and study time places that have free wifi.

For older students going back to school, I think they should require a more intense training using canvas. That's been my biggest challenge because technology has changed so much since I've been in school over 25 years ago! Lol! It can be very discouraging. Perhaps requiring a quick course on just navigating the computer before using canvas would benefit the student, something more hands on with repetitive practice than what is already in place.

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students
		<p>See <a href="http://classes.sis.maricopa.edu/index.php">http://classes.sis.maricopa.edu/index.php</a> South Mountain CNT202 or Chandler Gilbert CNT205 setup for an example.</p>
		<p>Chandler Gilbert disclaimer: [This course is part of our CISCO lab learning program. Other CISCO lab courses will be offered in the same classroom at the same time.] (Also, they didn't have all the necessary equipment so 4 out of approximately 13 labs were dropped.)</p>
		<p>South Mountain disclaimer: [This section is part of our Networking Lab-Based Learning (LBL) class and includes the following courses: CIS190, MST140, MST150SV, MST157DA, CNT202 and ITS110. Students in this LBL class complete a variety of labs, read/study the textbook/LabSim and complete assignments/quizzes in Canvas and/or LabSim. Courses in this Lab-Based Learning class are offered in the same classroom at the same time. This section may be taken online with the permission of the instructor.]</p> <p>use new interactive programs that are tailored to each students needs</p> <p>I think if the student is not knowledgeable with computers, it can be a downfall. Also, if they're not comfortable with the program their instructor is using for the class it can be difficult.</p> <p>Must know how and understand how to use a computer</p>
		<p>You need to set your time for school and be motivated. I do think that there should be a 'tech training' for each individual class. (e.g.: if you need to be working with a specific computer program, to upload your data for assignments, it would be nice to know how to use it before the first class). This has been my biggest challenge.</p>

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students



Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students
Time management	<p>I think a big drawback is that students rely to heavily on getting the needed knowledge and materials during the face-to-face time of a hybrid course and seem to want to treat the hybrid course just like a full face-to-face class. Meaning that many do not spend the needed time for the online portion of the hybrid course and then as the semester continues, they are often fall behind on their assignments.</p> <p>time management is a huge challenge for most of my students. They are often overly distracted and spread too thin which is why they take blended courses. This is often a very bad combination.</p>	<p>If they lose internet access or can't afford it, that could be a problem. Students who are not self motivated will have problems learning in this style.</p> <p>Issues with computer incapability and being unable to contact instructor.</p> <p>Navigation to certain online buttons such as turning in homework by uploads.</p> <p>Accessing particular documents or other resources to complete assignments.</p>
		<p>Juggling time to go to class.</p>
		<p>Must have good time management skills</p> <p>You have more homework</p> <p>The class gets together only once a week, a lot of online weekly homework.</p> <p>mainly, time.</p> <p>time management</p>
		<p>Time consumption, amount of homework that's assigned in the week</p> <p>Challenges taking a hybrid course are the same as challenges taking an online- you need to manage your time wisely.</p>

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students
		Possibly just meeting deadlines and turning in work via canvas.
		Some hybrid do not have due dates for assignments. In the course the assignments have due dates, but the student is not penalized. I understand a week or so late can be acceptable, people take these courses because they need something that fits in to a busy schedule, but not having any assignments due until the end of the semester allows students to slack off and eventually get behind. the challenges are you have to make the time to get work done.
		There might be students who procrastinate assignments, quizzes, or midterm/term papers before a certain hour of time. I noticed in my humanities class, about the first half of the class will turn in assignments online days before it is due. However, the rest of the class, (including me) have a tendency to submit it hours-even minutes- before the assignments are due have to stay on top of assignments and better your time management skills
		If you do not regularly check when things are due on the calendar supplied by the canvas website, you could easily miss out on homework and activities needed to complete the class. Need to maintain discipline to complete work on time
		Sometimes it might be hard to comply with the due dates and for some people it could be hard to check their online classes and keep up with upcoming events and assignments. time consuming
		With my math lab you can't take make up anything that is passed due. if you are far too busy outside of school with work, etc

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students
Unknown Modality	Students may not realize the class they enrolled in is hybrid until they show up for the first class.	Challenges could be are they able to time manage and dedicate the time out side of class. It's not all in class, and i think that's where people can get lost. They feel like as long as they show up that's enough, and it's not. The strict turn in time and absent policy.
Unrealistic expectations	Students often take my class because it's still open at the very end of registration and often have no idea that they have signed up for a hybrid course The survey does mention this, but in my experience, (false) student expectations about hybrid courses seem to present the biggest challenge. Many students still seem to enroll in these classes without knowing that they are hybrid, or what hybrid means, or simply because it meets for less time than the other (traditional) section. These seem to be the students who are least likely to succeed in the blended learning environment.	Courses were very well spread out with homework and it wasn't too much to handle. The realization that just because your not in a class you still need to set aside time like you are. It's not an easy class style to take for someone who does not dedicate this time. Class time is limited so you really have to be engaged an make use of that time wisely. Its hard at first to start managing your time accordingly. After awhile you get used to it and begin to figure out what you should do to help yourself.
		Most hybrid courses don't do a good job informing the students about the amount of online work that will be required in addition to the time in class.

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students
<p>Many students enroll because once a week sounds like less work. Then students quickly learn that you have the same amount of work, just less class time.</p> <p>Students sometimes come into class thinking hybrid means you only have to come to class once a week. They don't realize there is any other components to the course.</p> <p>Students take this course thinking it will be easier ( less seat time) when it's the exact opposite.</p>	<p>They do not take it seriously that they still must devote at least 20 hours a week to complete the online work and course readings. They hear "hybrid" and think they can do hybrid and work full time despite being told not to do this. I think sometimes the lack of a definition of what a hybrid class is and what one is not. I think that some hybrid classes may not be "true" hybrid classes and some classes are more web enhanced. I think a better and more complete definition of hybrid would clear up any confusion.</p> <p>Importance of letting them know both course format and what skills are necessary BEFORE they sign up! There was not a mechanism mentioned to deliver that.</p> <p>Nothing specific comes to mind. But I would like to take this time to emphasize the fact that my biggest challenge as an instructor is that student enroll in hybrid courses without an understanding of the expectations and what it means to be in a hybrid course. Sadly, I tend to lose a lot of students in the early weeks of the class as they do not seem capable of effectively managing their time and coming to classes prepared. Having said that, those that do complete the class are highly successful, but I'm continually</p>	<p>I believe that with hybrid classes comes the opportunity of students feeling like they do not have to show up for physical classes.</p> <p>Bd2: ineffective communication prior to enrollment. Not knowing really what to expect time-wise before class started</p>

Table I2: Faculty E5/Student D4

**Faculty E5/Student D4. Please share examples of possible challenges to students taking hybrid courses that were not included in the survey.**

Theme	Faculty	Students
	<p>discouraged by the number of students that are "lost" early on.</p> <p>Student not understanding what a hybrid course is or not prepared to use the technology.</p> <p>Perhaps the biggest challenge was more due to the 8-week format, rather than the hybrid style of the class. As attendance challenges have risen for certain students, their grades have suffered accordingly.</p>	
	<p>Also, those students using Apple products tend to suffer when working from home.</p> <p>Students take this course thinking it will be easier ( less seat time) when it's the exact opposite.</p>	
Work schedule		<p>Work schedules for students working part time may interfere with class times</p>
General		<p>One challenge is making it to the on campus portion if you work a full time day job.</p> <p>sometimes they are not human friendly</p> <p>None that I'm aware of.</p> <p>I think the survey covered this area.</p> <p>None that I can think of this is so easy</p> <p>I really cannot think of any examples.</p> <p>there's nothing really positive about it but just have days off</p> <p>I also think that the survey did a fantastic job of verbalizing the struggles that I have encountered with hybrid learning. The few problems that I have had have been minor, and mostly due to my own errors and faults.</p> <p>I have no additional examples.</p>

## Appendix J: Independent Faculty and Student Responses to Open-Ended Questions

Table J1: Faculty E4

**Faculty E4. Please share any additional examples of hybrid course benefits as course effectiveness factors for faculty that were not included in the survey.**

Trend/Theme	Faculty
<b>Accessible Information</b>	<ul style="list-style-type: none"> <li>I am able (and justified) to find different ways of supporting my students outside of the classroom, whereas fifteen years ago, asking for time or money to do something different was usually denied. I am able to reach more students, grow the program in which I am both a director and instructor, and I have a greater volume of records from my students through the work that they turn in. I am able to quantify my own success as an instructor by having access to the students' performances right at my fingertips!!</li> </ul>
<b>Best of both worlds</b>	<ul style="list-style-type: none"> <li>Hybrid is a great way to further personalize a class without going fully online. Some faculty fear online classes; hybrid is truly the best of both worlds.</li> </ul>
<b>Flexibility</b>	<ul style="list-style-type: none"> <li>Flexibility</li> <li>Faculty can access content at any time. Perfect if there are child care or work issues</li> </ul>
<b>Student Engagement</b>	<ul style="list-style-type: none"> <li>Greater flexibility to use office time for course development, grading and time to meet with students one-on-one.</li> <li>I think that due to the reduce face-to-face time of a hybrid course, instructors are now having to find different ways to present materials in a more concise manner. Also, to engage hybrid students, instructors are now starting to add and incorporate more online videos, blogs, and hands-on interactive sites as part of their courses supplemental materials to their hybrid offerings.</li> </ul>
<b>Updated Technology</b>	<ul style="list-style-type: none"> <li>One big benefit in teaching technology classes is that faculty must actually lecture and demonstrate skills in a hybrid class versus an online only class where such a lecture or demonstration can be avoided. In online classes, faculty sometimes lose the incentives to stay knowledgeable and current in the latest software features. Sad, but true.</li> </ul>
<b>General</b>	<ul style="list-style-type: none"> <li>I think the survey touched on all of them.</li> </ul>

Table J1: Faculty E4

**Faculty E4. Please share any additional examples of hybrid course benefits as course effectiveness factors for faculty that were not included in the survey.**

Trend/Theme	Faculty
	<ul style="list-style-type: none"> <li>• Good survey. The time needed to create a good class is 20 times harder than teaching face-to-face. That is the problem I think that it is hard to find time within work to create the class. If we are doing it then it may not be the precise quality we want the first time we teach the course!</li> </ul>



Table J2: Faculty E6

**Faculty E6. Please share examples of possible challenges to faculty teaching hybrid courses that were not included in the survey.**  
**Faculty**  
**Trends/Themes**

- Maricopa does not prepare faculty well... not all departments embrace online and hybrid classes. have been told, as residential faculty, that I am "only effective in the face-to-face classroom." I completely disagree with this. But, because this is the view of my department chair, I am limited to a minimal number of online and hybrid classes.
- Administrative support
- Lack of college support in the development of hybrid courses/programs.
- Defining activities
- Defining time management and critical thinking activities that are completed that coincide with the online activities.
  - logistics logistics logistics. There is much more to think about and manage as an instructor. Most teachers have never learned these aspects of instructional design and delivery.
  - It is not a good idea to offer any hybrid class on a day that happens to have several school holidays, such as Mondays.
- Scheduling
- Some students treat hybrid courses more like full face-to-face classes and expect to get all the answers during the face-to-face portion of the classes, and not have to do the online portion of the hybrid courses. These students tend to fall behind in class. As an instructor, I see this pattern appear many times and by mid-semester, I start to get several requests from these hybrid students for individual one-on-one appointments. The added time to meet individually with these hybrid students tend to take away from the time that I could spend enhancing and added new materials to the hybrid courses. Also, by mid-semester, I feel that these students are expecting me to help them cram and complete the assignments they have missed. I also sense a attitude from these students that what matters to them now is for them just submit missed assignments and get a grade. I believe at this point, that those students needing added help for not doing the online portion begin to not care or worry about missing out on critical knowledge.
- Student Expectations

Table J2: Faculty E6

**Faculty E6. Please share examples of possible challenges to faculty teaching hybrid courses that were not included in the survey.**  
**Faculty**  
**Trends/Themes**

- |                   |   |
|-------------------|---|
| Technical Support | <ul style="list-style-type: none"> <li>Faculty from campuses outside of Mesa Community College cite technical support and lack of funds for training and software as the largest challenges for learning and developing hybrid courses in their programs. The outstanding caliber of training and access through the CTL at MCC could be a national model for community colleges.</li> </ul>  |
| Technology        | <ul style="list-style-type: none"> <li>Good survey questions. Again the technology we need to set up online portion and the huge amount of time, unpaid, to develop these classes.</li> <li>Access to computers that have audio and/or video recording capabilities. Also, as an adjunct, I am only available when I am logged into the MCC site (Canvas), not all the time.</li> </ul>   |
| Time constraints  | <ul style="list-style-type: none"> <li>In a class like the one I teach it is sometimes difficult to cover difficult topics in the short amount of time I have with my students in a face-to-face classroom.</li> <li>Even though the hybrid instructor spends fewer hours in the physical classroom each week, the planning and grading takes much longer than that of a traditional class (in my experience). Not only is more work to prepare and teach a hybrid class, but doing so effectively requires a lot of training not only in pedagogy, but in technology, course design, etc. There really isn't a lot of incentive for faculty to do this (ie, reassign time, professional development funding, etc.).</li> </ul> |
| Training          | <ul style="list-style-type: none"> <li>I have had no formal training and will probably not teach hybrid classes again until I do have some training. The most difficult aspect of the course for both me and the students was the synchronicity (or lack of) assignments over the course of the semester. The class met Tuesday online and Thursday FtF, but it soon devolved (my own fault to a large degree) to a course that just met once a week (FtF). The online component for me was difficult, especially keeping it relative separate (and not a repetition) of the FtF component. And the FtF component often lapsed into a review of materials that should have been covered online.</li> </ul>                      |

Table J2: Faculty E6

**Faculty E6. Please share examples of possible challenges to faculty teaching hybrid courses that were not included in the survey.**  
**Trends/Themes****Faculty**

- Educating new faculty to the hybrid model and getting them used to the hybrid formats. They like the old traditional lectures.

Table J3: Faculty E7

**Faculty E7. Please share any additional examples of how teaching hybrid courses has influenced your teaching practices.**

Trend/Theme	Faculty
<b>Time Management</b>	<ul style="list-style-type: none"> <li>• Time management and organization is critical. I accomplish more now than what I accomplished in a 16 week face2face class with a higher engage quotient with students.</li> </ul>
<b>More Technology</b>	<ul style="list-style-type: none"> <li>• I teach my traditional classes differently too now, using Canvas to provide access to course materials, additional resources, and student grades. All of my f2f classes are web-enhanced. They are kind of like my hybrid classes, but with the benefit of double the seat time.</li> <li>• I've become a more effective user of technology to enhance the students' learning experience.</li> </ul>
<b>Organization</b>	<ul style="list-style-type: none"> <li>• I have learned more about technology than I ever wanted to know. I am now also an instructional designer, a coder, a media expert, a help center, a video expert, etc. In order to provide hybrid options, I have had to sacrifice a great deal of time. I has been painful and has undermined my enjoyment of teaching a great deal. It allows to flip the classroom</li> <li>• It helps me stay organized and get to know the students so I can advise them on their career pathways.</li> <li>• I have become more aware of course competencies and the hierarchy of concepts that I am teaching so that I don't focus so much on the details as I do the major points.</li> <li>• Teaching hybrid courses have helped me to be better prepared and to make most of the lecture time I have available. It has also helped me to learn new technologies and to incorporate them into my classes.</li> <li>• They make me be more prepared and pay attention to the way I say or direct assignments. I also pay closer attention to how my projects meet the objectives of each module.</li> <li>• It has helped me to structure the progression of content in my face-to-face classes in a different more structured/methodical manner.</li> </ul>

Table J3: Faculty E7

**Faculty E7. Please share any additional examples of how teaching hybrid courses has influenced your teaching practices.**

Trend/Theme	Faculty
<b>Responsiveness</b>	<ul style="list-style-type: none"> <li>• Teaching hybrid has made me revise how I share materials and information to my other courses</li> <li>• It requires more advance planning. When done right the entire course is created before the class begins, but it also allows flexibility to make changes based on what happens in the classroom.</li> <li>• I have treated it almost exactly the same as my "in class" courses.</li> <li>• I am a completely different instructor than I was prior to teaching blended and hybrid classes. I am more responsive and much better organized. My technology skills have shot through the roof. Out of necessity I have learned several different software programs that enhance the course content that I deliver in my courses. Students praise the different teaching strategies I try to include in each module. Best of all, the student work has greatly improved, and that makes my teaching portfolio even stronger. We all win.</li> </ul>
<b>Time Management</b>	<ul style="list-style-type: none"> <li>• I have learned to master the material better and lecture better so I can cover it all in one class a week instead of the former two classes a week.</li> </ul>

Table J4: Faculty E8

**Faculty E8. What do you believe are the top factors leading to learner success for students in a blended learning classroom? How is this different or similar to learner success in a face-to-face or online classroom?**

Trends/Themes	Faculty
Attendance	I found that if the students attend the weekly class they are very successful in the course.
Multi-modalities	Learner centered classes focus on the activities of learning through different types of pedagogies, including PBL, problem-based learning, and experiential learning. This is a huge departure from the lecture-based 50-minute lectures students used to endure years ago. Learning by doing increases critical thinking skills, and helps me as an instructor stay sharp.
Student engagement	<p>It offers them a variety of modalities to express themselves and solidify knowledge gained in class. If they have issues with online material, they have the face to face environment to clarify and ask questions</p> <p>Students feel more comfortable taking quizzes or honestly answering questions when they are not in a classroom situation. So in a blended environment they still have a teacher who is checking on them, making sure they are meeting their deadlines and explaining difficult concepts to them and yet they can complete their work in an environment that is comfortable for them.</p> <p>The top factors leading to learners success in blended learning is the added online materials and more real time interactions with students and instructor. The differences to the two are that the way of learning is blended and allows the students the benefits of both worlds.</p>
	Interaction between the student and teacher is improved. Both have and more often use multiple means of communications to enhance the learning experience.

Table J4: Faculty E8

**Faculty E8. What do you believe are the top factors leading to learner success for students in a blended learning classroom? How is this different or similar to learner success in a face-to-face or online classroom?**

**Trends/Themes**

**Faculty**

I don't think it's so different. I think the one benefit is the instructor can help heard the cats. In other words, I constantly remind my hybrid students that things are due. If I don't do that, it is much more likely they will forget to do the work. It's too bad there is not some fool proof way to teach students to be accountable and to make them better at self direction.

With care, a blended class will have basically the same success rate as a full face to face class. It depends on the material that you have to cover. There are some classes you just need the additional personal time that even a blended/hybrid will not grant. Online classes it is very easy for the instructor and the students to become "disconnected" from the material and the assignments.

**Student-efficacy**

I believe that self-direction, organization and motivation are critical to student success in both online and hybrid classes. And while these traits are also important in the traditional classroom, a lack of these characteristics does not seem to have the same impact on student success in the traditional learning environment.

The students who are self-motivated and driven may gravitate to these classes and make better use of their classroom time.

A motivated, self-directed learner. Many students who attend traditional classes expect to be spoon fed the information for superficial learning. A hybrid learner "puts in the work" prior to the face-to-face classes and gains a deeper understanding of the material.

Student ownership

Table J4: Faculty E8

**Faculty E8. What do you believe are the top factors leading to learner success for students in a blended learning classroom? How is this different or similar to learner success in a face-to-face or online classroom?**

Trends/Themes	Faculty
	<p>They must be more dedicated to keep a set schedule to complete the online portions.</p>
	<p>Student ownership</p>
	<p>Students have to be more independent learners, and that is a good thing in the technology courses I teach. Also, success is more likely as class is shorter in terms of time in class. Students teach themselves in the online portion--that is the real learning for all of us!!!!!!</p>
	<p>Students tend to read the text book for online portion of hybrid.</p>
	<p>F2F tends to spoon-feed the info.</p>
Time Management	<p>Time management, an organized LMS based class,</p> <p>Time management skills. That is obviously critical for success in college in general, but I feel is particularly critical for hybrid and online courses as students are often need to be more self-directed in completing work in a timely manner in order to be prepared/successful.</p> <p>Students must have good time management skills and be intrinsically motivated to learn on their own. They must be tenacious and persevere when they are confused since there is decreased time with an instructor.</p>



Table J4: Faculty E8

**Faculty E8. What do you believe are the top factors leading to learner success for students in a blended learning classroom? How is this different or similar to learner success in a face-to-face or online classroom?**

Trends/Themes	Faculty
Understanding	Understanding of the delivery by student (and instructors) Understanding the time commitment, learning style engagement by both instructor and students
Attendance	I found that if the students attend the weekly class they are very successful in the course.

Table J5: Faculty E9

**E9. Please list your top three recommended "best practices" for course effectiveness when teaching in a blended classroom.**

	<b>1st</b>	<b>2nd</b>	<b>3rd</b>
Require attendance for the on-campus portion of the course		Lecture Capture of all in-person lecture on-campus meetings	Online portions of the course should include group work to further engage students when not in the classroom.
Organization	Effective presentation	Accepting different learning styles	
First, like a good essay, always segue way into new material by doing a quick review or tie-in from the last. It provides continuity and context for students as the course progresses.	Second, make sure students know what they are going to do prior to a face-to-face meeting, and have them do a quick activity or a reflection so that they are warmed up when they come to class. Many times students bring questions about new material with them.	Third and lastly, incorporate a way to provide students timely feedback on their assignments, projects, quizzes, or discussions. Rubrics are good for this. Also, make sure students have built-in activities for them to evaluate their own progress. This is highly effective, and should have some reward, without too much risk.	
Effective use / maximization of class time. Technology should not get in the way!	Well designed virtual environment (which includes pedagogically grounded use of technology.	Clear alignment of online activities with f2f teaching / activities.	
Know what you are teaching..	Stay on course to cover the scheduled skills	Be available to help students in lab who are struggling.	

Table J5: Faculty E9

**E9. Please list your top three recommended "best practices" for course effectiveness when teaching in a blended classroom.**

	1st	2nd	3rd
Training for me is a must.		Support from the tech side.	Support from the faculty side.
Flexibility		Organization	Communication
Clarity for students - expectations, etc		User friendly course information/structure - clear to students where to go, what to do, when to do it	Instructor accessibility - don't leave the student "hanging" in cyberspace; they need to know they are supported by you even if they don't see you for every class
Organization		Personalization	Accountability
Set deadlines for your students and make sure they know you expect them to meet those deadlines.		Cover the most difficult material in class and provide the students with access to any additional information through the online portion of the class.	Have high standards and expectations for your students and be clear with them as to what those expectations are.
Up front communication on expectations.		Accountability for the student adhered to ( no class modification to accommodate the less-motivated student).	
Tops is communications and open discussions using the Learning Management System.			

Table J5: Faculty E9

**E9. Please list your top three recommended "best practices" for course effectiveness when teaching in a blended classroom.**

	1st	2nd	3rd
Students need to understand the importance of communicating with the instructor.			
Use discussion boards with specific questions that incorporate the online content into a real world situation. Actively participate in the discussion as faculty!		Quiz the students every week at the beginning of class as a further guide to access how well they learned the content	Do not spend the in-person time relecturing. Instead, use case studies and small group work to have the students put all of the content into action.
Find a way to "Connect" and get to know your students.		Find a way for the students to engage with each other.	Help student's learn time management.
Engaging projects for the online or hybrid times--self field trip, investigative assignment using online sources		no group activities outside the classroom.	
Clear orientation and outline of expectations at the beginning of the course		Creating in-class activities to build on content that is covered online	Helping students to see the connection between different course activities.
Use class time for activities that engage and prepare students for online assignments.		Allow time to discuss the students' online experience.	Have good standards, but be flexible when needed.

Table J5: Faculty E9

**E9. Please list your top three recommended "best practices" for course effectiveness when teaching in a blended classroom.**

1st	2nd	3rd
<p>touch the class and communicate regularly with students. They only days I don't go into the class is weekends and that is only occasionally. Most of the time I even touch base then.</p> <p>Ease up on added assignments that are above and beyond the required homework.</p>	<p>have a systematic method of assigning and scheduling work. Make sure deadlines are always scheduled on a day you meet face-to-face so you can remind them to do the work.</p> <p>Actively work with the students (I hear from students that are taking CIS105 for the 2nd time that too many teachers "talk" for 10 minutes then turn the time over to students to work on their homework - there is very little teaching going on in some classes)</p> <p>Hold students accountable for online activities on days when you don't meet</p>	<p>Set your expectations early. If you don't take late work, start it from week one, or they will push for exceptions constantly.</p> <p>If you don't enjoy teaching, at least act like it. I love doing this!</p>
<p>Be exceptionally organized</p>	<p>Hold students accountable for online activities on days when you don't meet</p>	<p>. Set clear expectations at the beginning of the semester.</p>
<p>Clear syllabus outline and expectations</p>	<p>Making sure they understand how the canvas system works</p>	<p>Clear Rubrics for assignments</p>
<p>Up front communication on expectations.</p>	<p>Accountability for the student adhered to ( no class modification to accommodate the less-motivated student).</p>	

Table J6: Faculty E10

**Faculty E10. Please list three recommendations for strategic implementation options of "best practices" for course effectiveness when teaching in a blended classroom.**

- 1. Organizing and sequencing of information
- 2. Organizing and flexibility of topics
- 3. Help and support for students
  1. Be prepared
  2. Allow students time to incubate on a problem; come back to it later
  3. Provide some type of critical thinking exercise to lead to some type of illumination
  4. Allow a way for students evaluate themselves for self-verification

This is built around the 1926 set forth by Wallace Graham on the steps to creative thinking and development.
- 1. Revise your course to include helpful materials such as the author's PowerPoint and partial answer keys to keep students on track.
- 2. Have a flexible assignment schedule that allows students to turn in assignments a few days late for slightly reduced credit.
- 3. Make sure student know before and after enrolling what the format and expectations are for a course.
- 1. Training for me is a must.
- 2. Support from the tech side.
- 3. Support from the faculty side.
- Use the Quality Matters rubric to assist in course development
- Everyone needs a mentor. Or, being a student in a blended or online class gives great perspective.
- 1. Speak to students in person if they are not keeping up with the course work.
- 2. Be selective about what you teach.
- 3. Continuously review course objectives and competencies with the students.
- Better definition and clearly stated course objectives BEFORE the student enrolled.
- Using Canvas effectively.

Table J6: Faculty E10

**Faculty E10. Please list three recommendations for strategic implementation options of "best practices" for course effectiveness when teaching in a blended classroom.**

- 1. Make sure that students have the technological knowledge to do the online portion of a hybrid course.
- 2. Have students be prepared on effective time management by having a prep class on time management skills prior to taking a hybrid class.
- 3. Have a strong online support system for students, such as 24/7 online assistance, 24/7 tutoring, and an early alert system to help students that are falling behind.
- MCCCDC needs more opportunities for training and also ongoing workshops and templates for modified syllabus, ADA compliant info and easy access for students to all online materials.
- 1) Development of a required course orientation module
- 2) Clear learning objectives and presentation to students as to how/when those objectives are being met.
- 3) Using QM for course design is an effective way to achieve this.
- 1. Explain to students at the beginning of class how hybrid instruction is used in that class.
- 2. Let students know that you want and welcome their feedback about their online experiences.
- 3. Use class time and the syllabus to clearly state the standards for the class regarding late submission, quality of work or the format for written work.
- 1. Adequate teacher support. Teachers are often disenfranchised in an online environment- collaboration on the front of course delivery seems important (although I have rarely had it). A team should be available to help especially in early and new development.
- 2. Student preparedness. There should be a well designed method of helping students be prepared to take a blended or online course. Many of our students are simply unprepared and suffer from misconceptions of what hybrid means.
- 3. Ratios in blended, hybrid courses should be kept low to allow for best interaction and delivery.
- 1. Let the students know you are there for them and that you enjoy what you do as an instructor; the positive vibe is infectious.
- 2. Ensure the students know what is expected each class (what is covered, what is assigned, what is due and when)
- 3. Be flexible when appropriate (mercy), but treat all students objectively (justice)
- Better definition and clearly stated course objectives BEFORE the student enrolled.

Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.**

Trends/Themes	Student Learning Practice
<b>Accessible material</b>	<ul style="list-style-type: none"> <li>• Has more resources</li> </ul>
<b>Critical thinking</b>	<ul style="list-style-type: none"> <li>• More critical to thinking skills and time management skills</li> </ul>
<b>Flexibility</b>	<ul style="list-style-type: none"> <li>• Allowed to accumulate required credit to graduate intime.</li> </ul>
	<ul style="list-style-type: none"> <li>• I love working from home and having them available as well.</li> </ul>
	<ul style="list-style-type: none"> <li>• It has allowed me to balance my personal life with my school life. It has taught me to prioritize and focus.</li> </ul>
	<ul style="list-style-type: none"> <li>• It has helped a lot with being a full time student and full time worker.</li> </ul>
	<ul style="list-style-type: none"> <li>• This course has enabled me to study at home and complete quizzes or tests too.</li> </ul>
	<ul style="list-style-type: none"> <li>• I love hybrid and online classes because I can utilize my own time schedule.</li> </ul>
	<ul style="list-style-type: none"> <li>• A lot of pressure is taken off, at times, because you physically don't have to be at class. That is nice.</li> </ul>
	<ul style="list-style-type: none"> <li>• Helped me time manage my full class schedule.</li> </ul>
	<ul style="list-style-type: none"> <li>• It allows me to take more classes than otherwise</li> </ul>



Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.****Trends/Themes****Student Learning Practice**

- Taking an hybrid course has given me more time to stay home and study and take a break from the travel and being at school each week. I feel recharged when I get to go to my next in-class lesson. It has also made me more productive since my in-class time is reduced, so I come to each class more prepared with finished assignments, things to work on, or questions to ask the teacher.
- it has made it easier to focus on my other classes.
- Made my life easier.
- I enjoyed hybrid classes, I can make the schedule fit around my work schedule easier
- It forced me to become creative in how I learn.
- It has forced me to practice/study more and therefore learn better
- We had more opportunities to explore teaching techniques. My professor for example let us listen and watch his videos on youtube with lots of visuals rather than just lecturing.
- Taking a hybrid course has really improved my attention skills in class because you really can't miss anything or you'll be lost. This goes for attendance as well, if you miss a day you're essentially missing an entire week of lectures.

**Learning style**

Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.****Trends/Themes****Student Learning Practice**

- Hybrid courses forces me to check online more often and help me to learn on my own.
- I do have to say it has pushed me further than I would normally go as far as taking on assignments via the hybrid classes. It allows me to make mistakes in my own home while doing assignments without other students being there to witness it! Haha! Also, not so much pressure when completing assignments in the comfort of your own home.
- 1. Allows me to test my interest and success in both online and in-person learning
  2. Helps me be effective and successful at various learning tasks
  3. Challenges me to juggle multiple assignments and complete them on time
- Help me improve my self learning at my pace.
- I had to relearn everything as far as studying and learning material
- It made me listen and pay more attention to what the instructor had to say and what the instructor wanted us to learn.
- Some don't learn as well
- I am able to review course work before class and write down any questions that I may have about new material that is being presented.
- I personally like hybrid courses however, I would not want all of my classes to be hybrid because I appreciate that traditional class 2-3 times a week, which forces me to stick to a certain schedule. Hybrid courses have still helped me a lot by making my schedule less busy throughout the week, and I cannot imagine my schooling without them. However, hybrid course are only successful if the teacher is pretty active online and has good technology skills.

Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.**

Trends/Themes	Student Learning Practice
<b>Modality choice</b>	<ul style="list-style-type: none"> <li>• I personally think hybrid courses are not for me. I personally enjoy more face time with the teacher.</li> <li>• Never will I take a hybrid course again unless it is my only option.</li> <li>• I am far more likely to chose a hybrid course than I would a traditional class or an online only class.</li> </ul> <p>Is row 13 of this survey presented in error?</p> <ul style="list-style-type: none"> <li>• It has helped me prepare for future hybrid classes, it has given me insight on how a online class may be taught. (online stuff)</li> <li>• i am sorry,this is my first semester,and i study esl class now ,so i can't take hybrid course now. i hope after esl i can take it.</li> <li>• I'm not a big fan of hybrid , I'd rather do all online but some course don't allow it at my school.</li> <li>• I'm not sure it has enhanced my learning except that hybrid and online courses seem easy courses to me. I do not prefer them actually. I feel they do not challenge me much.</li> <li>• Hybrid classes have not influenced my learning experience at all. In general they can be beneficial to some students, but in my case when you dont have a choice it is disheartening to know that you dont have a choice, but to accept the fact that it is the way some courses are structured.</li> </ul> <ul style="list-style-type: none"> <li>• It has made me want to only take purely lecture courses</li> </ul>

Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.****Trends/Themes****Student Learning Practice**

- If anything it has taught me that the teacher is a small part of the learning process and the text books are sometimes designed to hide and confuse the student the needed info to learn.
- Its definitely opened my mind up to online classes. I was never a huge fan of just online classes because I actually like the in-class atmosphere, and hybrid courses are like a happy medium between the two.
- ive become aware of not taking a hybrid class.
- For the negative.
- Hybrid classes seem harder for me
- It makes me value my non hybrid face to face classes more
- I can't say that it has influence by learning practices.
- They haven't
- It hasn't
- None

**No change**

Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.****Trends/Themes****Student Learning Practice**

- it hasn't
- It has helped me to become more organized and well as be a better advocate for my needs. I come to class prepared to ask questions and get the help I need since there is only a limited amount of time in which I have access to the instructor.

**Organization**

- Be organized and stay on track. Don't get side track
- I've become more organized regarding how I keep my files on my computer. I'm more self-motivating than I was before as far as taking the initiative to learn the material.
- just make sure you take the time to sit down and go through everything that way you know what to expect.

**Self-efficacy**

- Doing the assignments on online at home much more quite. Learn at my own pace.
- It has made me very self-motivated and organized. I know that I have assignments due certain days so I manage my time and make sure to learn the content and get it all done!
- Hybrid classes do force a student to do some learning on their own. Which for some is the best way to retain information, but for others it is difficult to teach themselves.

I think the school should strive to always have at least one non-hybrid to every available Hybrid class so that students may be able to benefit from the learning styles that best suits their abilities.

- Hybrid classes have helped me become for attentive of my learning

Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.****Trends/Themes****Student Learning Practice**

- It has prepared me to be able to work with little or no information, i know where and when o get the right additional information for any work given
- Hybrid classes have taught me to be more disciplined when it comes to academics and learning.
- It makes me competitive with myself and classmates when I can instantly see scores and where my scores fall compared with others in my class.
- Taking a hybrid class continuously reminds me of my own role in my education. A lot of responsibility is put on teachers to craft and execute the most ideal learning environment that they can, but I know too often that students don't hold up their end of the deal. Hybrid learning continues to remind me to manage my own time, set my own time aside for studying, and to optimize my study and lecture time. Overall, I have had a great experience with hybrid learning. I think it has given me more real-world knowledge and personal insight as a student than any other in-person only or online only class ever has.
- I just feel as though ive become more responsible in checking when things are due and how to do them, what's expected.
- It has made me more of a cautious student and help me grow in my understanding of my responsibility as a student.
- Hybrid classes have helped me become a little more confident in myself when it came to the specific class or subject I was in as well as giving me the freedom to make study choices on my own without a teacher having to hold my hand.
- Now when I take hybrid class I understand that, less class time doesn't instantly mean, more free time. Work hard, get what you put into it!

Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.****Trends/Themes****Student Learning Practice**

- It has taught me to be more mature and more organized with my studies. I have more control over my education.
- I kinda feel more empowered to find information on my own now. When reading over homework assignments, if I have a question related to the subject, I just open a new tab on the browser and do my own research right there. I end up using in class time more effectively than I used to, since we only meet once a week, whereas before I saw class lecture as more of a chore. Now I see class as an opportunity to ask specific questions.
- It has improved my ability to internalize information by allowing me to work on my own timetable.

**Student engagement**

- Ability to ask the teacher questions about current lessons in-person.
- Many classes really heavily on group discussions, which means they don't work well as online courses. Hybrid courses allow me to manage my own time while still getting the benefit of group work.
- I get to know people that are taking the classes that are for my major that I will be seeing in future classes. I am able to have lecture every other week and learn from conversations in the classroom. Other classmates opinions.
- It makes me more cognizant of fellow classmates that come to class unprepared. Depending on how vocal they are in class, they may rob the rest of the class of valuable learning time. I usually have the textbook read by the time the class starts (having a copy of the syllabus even if it's from the prior semester can pare down the reading load). Breaks between semesters are the perfect time the get the reading done. I highlight and write down comments & questions in the margins of the textbook. When class begins I can concentrate on lectures, assignments, and labs.

Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.****Trends/Themes****Student Learning Practice**

Almost all of my classes have been 8-week classes. I only take a hybrid class if there's no "in person" class available and if the teacher has a good teaching reputation.

- I think that by taking a hybrid class, it has made me become a better student in regards to asking questions to what I don't understand as well as making me better at reading textbooks for information.
  - It's been a big help being able to have the face-to-face interaction with teachers when I don't quite grasp a concept, and also being able to move at my own pace.
  - There is a huge convenience factor in taking online classes, but I miss the human face to face interaction. It would be nice if there was a way to make up one or two classes online, if missed in person.
- Student learning**
- I have more homework but I gain more knowledge of the course
  - Hybrid courses encourage to do new things which are helpful in future. Sometimes we become lazy and careless, because it is hybrid course so I think instructors should follow up with the students and keep a track on them so that they are not lost.
  - I think it provides a huge benefit alternative!!
  - It has expanded my horizons for class learning.
  - I have learned somethings really well in each. Vocab is very easy to do in class lecture, and identification of parts is easier in lab online.



Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.****Trends/Themes****Student Learning Practice**

- I am able to further research topics that I am either interested in and want to know more about, or if I don't understand a concept I can research further at my pace. I have become more independent with learning.
- I learned how to work on the computer a lot better than I had known the computer. I'm more proficient in Word and PowerPoint now.
- One of the classes I took was a computer usage class. Since I have an older computer. I have had issues doing the work. I need to find a way to get a new computer.

**Technology**

- They have influenced my learning practices by making me more comfortable with a computer.
- In taking a hybrid course/courses I've become more technology-savvy and that has decreased my work load a great deal.
- blended classes allowed me to be more tech savvy.
- I learned to use my email to contact the professor a lot more.
- It is a lot easier to be able to work at a home but then still touch base with the teacher. It has also improved my computer skills.
- Has caused me to learn the computer skills myself!
- It really did not change my learning practices, because I am very computer literate, and spend a lot of time at my computer.

Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.****Trends/Themes****Student Learning Practice**

- I am now far better with computers thanks to this method of blended learning.
- It has definitely helped me become more familiar with the technology world and one day I think everything is going to be online so it is probably a good thing I was forced into taking this hybrid lab.

**Time management**

- It has taught me to not push off school work because it will pile up fast.
- By making homework assignments easier it's not that difficult.
- I have better time management
- Taking a hybrid class has helped me gain time management skills that I can use to better manage both work, and school.
- It's encouraged me to be proactive and stay on top of and ahead of assignments so that teachers may grant me a little leeway on attendance to the on campus portion...
- I don't know if they so much "influenced" my learning practices, but having them available has helped my study schedule since I don't have to be on campus as often.
- In some cases, knowing that I can do the e-learning at my own schedule, I have waited to the last minute to complete the work and not given the material my best efforts.
- Lack of meeting with the instructor has led to increased personal management of time.

Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.****Trends/Themes****Student Learning Practice**

- This class has saved me time and frustration due to easy organization, online text book (no return date for book rentals and lugging around heavy text book), and available calendar for quizzes and in test classes. Many different ways to answer my questions, correct mistakes. Math is a difficult subject, this style of class has greatly assisted my success in this class along with my teachers' effective teaching style.
- i have been able to prioritize my time alot more.
- Learned to get work done on time.
- Taking hybrid courses has changed my learning practices by forcing myself to plan when I need to get my homework done in between class and work, in order to get things done at the appointed time in conjunction with my other class workloads.
- I had to learn better time management. I was able to send my instructor questions via email if needed. I enjoyed going to class once a week and it wasn't hard to remember to go to class. I had more time to work, by not having to be in a class multiple times a week.
- I learned to manage my time well
- It has taught me not to procrastinate and that I should make sure to do work ahead of time so that I do not fall behind when working on the assignments.
- I can manage more time
- I time manage all my class MUCH better now.

Table J7: Student D5

**Student D5. Please share any additional examples of how taking hybrid courses has influenced your learning practices.**

Trends/Themes	Student Learning Practice
	<ul style="list-style-type: none"> <li>• It made me more aware of the due dates and keeping track of assignments</li> </ul>
	<ul style="list-style-type: none"> <li>• It has helped me create a more rigid schedule for my studying, work and time with family.</li> </ul>
	<ul style="list-style-type: none"> <li>• It has definitely taught me time management skills as well as given me the ability to think and write critically know numerous topics.</li> </ul>
	<ul style="list-style-type: none"> <li>• It has helped me become more aware of my time.</li> </ul>
	<ul style="list-style-type: none"> <li>• I have become more aware of time management.</li> </ul>
	<ul style="list-style-type: none"> <li>• Helps me make better use of my time</li> </ul>
	<ul style="list-style-type: none"> <li>• Promptness on making my deadlines .</li> </ul>
	<ul style="list-style-type: none"> <li>• I have learned to make time to study to ensure I had the content mastered since I was not learning it in class.</li> </ul>
	<ul style="list-style-type: none"> <li>• Taking a hybrid class I am more aware of deadlines and exam dates vs your typical class (even with syllabus given in class.</li> </ul>