BLENDED LEARNING, STUDENT SELF EFFICACY AND FACULTY

AN INTERPRETATIVE PHENOMENOLOGICAL ANALYSIS

A doctoral thesis presented by

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Abstract

This thesis explored whether a link exists between blended learning and student self efficacy for community college students, as perceived by faculty teaching blended courses at these institutions. Several previous studies investigated aspects of this topic, but these studies focused on gains in student learning; whether or not students liked blended learning; or whether or not faculty viewed blended learning as achieving learning goals. While some of the research clearly indicated that blended learning results in learning gains that are at least comparable to traditional face-to-face and online learning environments, faculty opinion of blended learning’s benefits was often inconsistent with these results, and some faculty have expressed less than favorable opinions of blended learning. The current study examined Bandura’s theory of self efficacy, using Vygotsky’s constructivism and Dede’s online theory (which includes blended learning) as theories that support Bandura’s theoretical foundation, to determine whether faculty found that blended learning increased student self efficacy. The analysis of faculty perception was explored through interpretative phenomenological analysis as a qualitative prism of faculty opinion. The study revealed that faculty believed students were not adequately prepared for blended learning; that student and faculty engagement, subjects taught, and faculty support were critical factors in student self efficacy and course success; and that students and faculty often found blended learning required the most effort of any course delivery mechanism. The growing use of blended learning in postsecondary education suggests student and faculty engagement should be considered when preparing coursework and student participation orientation.

Keywords: Blended learning, self efficacy, faculty perception, constructivism, social capital, virtual learning environments, interpretative phenomenological analysis.
Section 1: Introduction

The concept of blended learning\(^1\) is not a new idea. One might argue that it originated in the correspondence course, an early form of distance learning. Today that concept has changed with the advent of new technology (Means, Toyama, Murphy, Bakia & Jones, 2010), expanding rapidly since the late 1990’s (Peinovich, 2008). These technological changes have also led to a re-examination of pedagogical theory around the use of blended learning as a means to increase completion rates for college students, especially in community colleges.

This thesis was grounded in several overlapping trends, including the increasing responsibility students face to think more critically about how their investment in education will affect their future (Gaddis, 2011; Simpson, 2005; Symonds, Schwartz, & Ferguson, 2011), the need of institutions of higher education to be sensitive to students’ need to work, and these institutions’ needs to increase graduation rates (Drucker, 2006; Kamenetz, 2010; Peinovich, 2008). To address these needs, many community colleges have adopted new educational delivery systems, including blended learning, which has shown impressive growth over the past ten years (Drucker, 2006; Green, Edwards, Wolodko, Stewart, Brooks, & Littledyke, 2010; Kamenetz, 2010; Means, Toyama, Murphy, Bakia & Jones, 2010). The main focus of this thesis was to determine whether community college faculty members perceived that blended learning can increase student self efficacy for community college students of all ages to help these students attain their educational goals (Bandura, 2011; Hannay & Newvine, 2006; Vygotsky, 1978). If blended learning continues to grow, determining how students and faculty can use this

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\(^1\) The Sloan Consortium defines blended learning as instruction that delivers between 30 percent and 79 percent of its content online. The remaining content is provided through face-to-face instruction or other non-web-based methods, such as paper textbooks (Watson, 2008, p. 6).
pedagogical delivery method to its fullest potential becomes essential (Kamenetz, 2010; Peinovich, 2008).

**College Retention and Student Motivation**

The impetus for this thesis originated from study of college retention rates. Four year college non-completion rates have been about 50% for fifty years; at least two-thirds of community college students failed to attain a degree three years after entering college (DeAngelo, Frank, Hurtado, Pryor, & Tran, 2011; Eckl & Henderson, 1981; Goldrick-Rab, 2010; Habley, Valiga, McClanahan, & Burkum, 2010; Lassen, 2007; Schneider & Yin, 2012; Swail, 2004; Tinto, 1975, 2006). Commonly cited causes for this high rate of non-completion included: poor student preparation, expense of higher education, and lack of social acclimation/involvement in postsecondary institutional life (Boddy, 2010; Braxton, 2000; Gao, 2005; Herzog, 2005; Johnson & Rochkind, 2009; Lang & Ford, 1992; Perin, 2006; Reason, 2003; St. John, Simmons, Carter, & Weber, 2005; Tinto, 1975; 1982; 1988; 2006; Titus, 2006; Zepke, Leach, & Prebble, 2006).

Generally, postsecondary completion appeared to provide increasingly diminished economic rewards to students who entered community or four year college immediately after completing high school (Liu, Thomas, & Zhang, 2010). The increasingly protean labor market emphasizes attainable skills credentials and the ability to learn new skills as more essential to employability than college completion (Choy, Haukka, Billet, Bowman & Wignall, 2007; Cleary & Fichtner, 2007; Danaher, Danaher & Moriarty, 2007; Symonds, Schwartz & Ferguson, 2011). The relationship between a baccalaureate degree and increased earnings (Lotkowski, Robbins &
Noeth, 2004; Porter, 2002; Simpson, 2005) was no longer guaranteed (Danaher, Danaher, & Moriarty, 2007; Symonds, Schwartz & Ferguson, 2011). The aggregate expense of postsecondary education had more than doubled in constant dollars over the past 30 years (de Vise, 2012; IES, 2012; Kamenetz, 2010). Also, postsecondary populations no longer consist solely of students who entered college immediately after high school (Drucker, 2005; Kamenetz, 2010; NCES, 2012). In response to increasing demand for alternative school options (Drucker, 2005; Green, 2003; Kamenetz, 2010; Morgan, 2009), postsecondary institutions offered an array of educational modalities to meet student needs, and took advantage of technological advances to reach more students and increase school revenues (Cooley & Cooley, 2009; Green, 2003).

College training was and is necessary for some positions, especially in STEM (science, technology, engineering, mathematics) disciplines (Symonds, Schwartz, & Ferguson, 2011), but a traditional four year college experience at a traditional campus after high school appeared to be diminishing in importance and in practice as the primary pathway to higher education (Drucker, 2005; Green, 2003; Kamenetz, 2010; Morgan, 2009). This implied increasing flexibility in postsecondary education delivery mechanisms for students and their families; it may also imply that self efficacy and the student’s ability to learn new skills may be part of the new set of skills that the student needs to advance his or her career (Bandura, 2011; Kamenetz, 2010; Morgan, 2009).

The Humboldtian university model that emphasized academic self-governance, a unification of research, teaching, and academic freedom, taught in small groups (Kruse, 2006) had undergone significant modifications, including continuing education, massification\(^2\),

\(^2\) Expansion of higher education to the general population (Gumport, Iannozzi, Shaman, & Zemsky, 1997).
globalization, an emphasis on entrepreneurship, and specialized training (Roggenkamp, 2001). These changes occurred because of a series of events ranging from the need to increase student diversity (Drucker, 2005; Morgan, 2009), increasing competition (Green, 2003; Roggenkamp, 2001), and the emergence of “digital natives” (Evans, Mulvihill & Brooks, 2008; Prensky, 2001; 2008). The latter phenomenon generated increased student acceptance of blended learning (Benjamin, 2003; Prensky, 2001; 2008).

Students whose parents attended college have been more likely to attend college than those whose parents have not (Grodsky & Rieglecrumb, 2010). Recent analyses suggested that the emphasis on college attendance may be a learned societal expectation (Drucker, 2006; Peinovich, 2008). This implied a *habitus* or expectation of college attendance not based on analysis of the rewards and benefits of education (Grodsky & Rieglecrumb, 2010). Students of all income levels shared this assumption even if student grades or interest did not support the belief that the student could succeed in college (Symonds, Schwartz, & Ferguson, 2011). This led many students to enroll in remedial education activities, particularly at the community college level, which discouraged or even stigmatized the student (Grodsky & Rieglecrumb, 2010: Long, 2010; Schneider & Yin, 2012). Colleges became expensive providers of goods and services with no guarantee of benefit to the student (Beh, 2000; McJessy, 1995; Morgan, 2009). The perceived income gap between students who attended college and those who did not encouraged students to attend post secondary education, whether or not such attendance suited the student’s career interests or ability to manage debt after postsecondary education (Benjamin, 2003; Morgan, 2009). The expectation of attendance negated clear decision-making (Grodsky & Rieglecrumb, 2010) about whether higher education was a suitable choice to meet student goals.
High levels of support and self efficacy are needed to encourage student retention and success in such an environment (Bandura, 2011; Smith, 2010). The elimination of the feeling that one had a choice to attend postsecondary college can also diminish the perception of self efficacy. An integral part of self efficacy is the need to feel one can control one’s environment—a forced decision is a mandate, not a choice (Bandura, 2011).

**Self efficacy’s Role in Student Motivation**

Self efficacy (people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives (Bandura, 2011)) related significantly to self-regulated learning and to student goal orientation (Lynch & Dembo, 2004). Self efficacy may be connected to increased flexibility that may be useful in a shifting labor market (Green, de Hoyos, Li, & Owen, 2011). This thesis proposed to explore blended learning as a possible mechanism to increase student self efficacy (Lynch & Dembo, 2004; Martin & Tutty, 2008; Orhan, 2007). If blended learning can demonstrate improvement in student self efficacy and outcomes, it might have implications for future curricular design, student retention, and careers (DeTure, 2004; Watson, 2008).

**The Connection between Blended Learning and Self efficacy**

The pragmatic reason blended learning was the focus of this study this study was the accelerated growth of blended learning. This growth increased the need to understand how this learning modality affects specific aspects of learning (Newman & Couturier, 2001; Peinovich, 2008). If blended learning met or surpassed the learning outcomes of traditional face to face learning (Green, Edwards, Wolodko, Stewart, Brooks, & Littledyke, 2010; Means, Toyama,
Murphy, Bakia & Jones, 2010), this study may allow insight as to whether this growing educational delivery system can increase student self efficacy (Castle & McGuire, 2010), a life skill linked to student retention and success (DeWitz, Woolsey & Walsh, 2009). Yet, some studies showed a disparity of perception between students’ generally positive reactions to the effectiveness of blended learning and many faculty members’ more skeptical reaction to this teaching methodology (Kim & Bonk, 2006; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009). A goal of this study was to discuss whether faculty members thought blended learning can enhance student self efficacy.

Definitions

**Definition of Self efficacy**

Self efficacy theory was developed in the 1970’s by Albert Bandura (2002/2011) as a subset or manifesting element of Bandura’s larger theory of learning (Social Learning Theory), and how people utilize social environments to learn (Social Cognitive Theory) (Bandura, 2011). Bandura himself noted that there are several types of self efficacy and there is no single definition of self efficacy that fits all situations- “Self efficacy is concerned with perceived capability… (and) should be phrased in terms of *can do* rather than *will do*. *Can* is a judgment of capability; *will* is a statement of intention” (Bandura, 2006, p. 308-309). Bandura (1994) posited that “Perceived self efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self efficacy beliefs determine how people feel, think, motivate themselves and behave (Bandura, 1994, p. 1).” A strong sense of self efficacy helps people approach difficult tasks as challenges
to be mastered rather than as threats to be avoided, fostering “intrinsic interest” and “deep engrossment in activities (Bandura, 1994, p. 1).”

There is no objective threshold of learning that indicates self efficacy is present (Bandura, 2011); self efficacy is achieved when the individual internally believes the task at hand can be completed. According to Bandura (2002), perceptions of self efficacy influence whether people think erratically or strategically; whether they proceed optimistically or pessimistically. Bandura (2006) explained how these beliefs work in the following passage:

Self efficacy…also influences the courses of action people choose to pursue, the challenges and goals they set for themselves and their commitment to them, how much effort they put forth in given endeavors, the outcomes they expect their efforts to produce, how long they persevere in the face of obstacles, their resilience to adversity, the quality of their emotional life and how much stress and depression they experience in coping with taxing environmental demands, and the life choices they make and the accomplishments they realize. Also, self efficacy is not a static state for the learner; the situation in which the learner exists may increase or decrease self efficacy (p. 309).

So, self efficacy directly affects effort and persistence and is directly influenced by perceived obstacles. Also, as stated previously, the option of abandoning or continuing a course of action, or affecting one’s environment is, by definition, under the control of the self-efficacious person—without the ability to choose, self efficacy does not exist (Bandura, 2011).

Several instruments that measure self efficacy are currently in use (Artino & Stephens, 2006; Aykol, Garrison, Ozden, 2009; Danaher, Danaher, & Moriarty, 2007; DeWitz,
Woolsey & Walsh, 2009; Magno, 2011; Mattern & Shaw, 2010; Pintrich, Smith, Garcia, & McKeachie, from Mitiadou, 2000; Schwarzer & Jerusalem, 1995) and are referenced in later sections of this thesis. These instruments: 1) assess different methods (self efficacy scales and tested surveys) of assessing self efficacy, and 2) develop an appropriate conceptual understanding of the field research background to adequately assess the concept of self efficacy development.

**Definition of Blended Learning**

Blended education increased in popularity to 1) combat the expense of higher education, 2) increase convenience to consumers of education; and 3) to increase student engagement (Kamenetz, 2010; Lim & Morris, 2009; Watson, 2008). Blended learning must be defined both accurately and comprehensively for this thesis.

**Blended learning** is defined in this thesis as instruction that delivers between 30 percent and 79 percent of its content online. The remaining content is provided through face-to-face instruction or other non-web-based methods, such as paper textbooks (Watson, 2008).

Blended learning falls into the broader category of distance education (or distributed education) which is a continuum beginning with mixed face-to-face and distance teaching/learning at one terminus and ending with fully distant education at the other end (Lynch & Dembo, 2004). Distributed education uses eclectic technologies and modes of instruction and allows synchronous (real time) and asynchronous (anytime) teacher-learner and learner-learner interactions in a course/program (Oblinger, Barone, & Hawkins, 2001). Blended education is a form of distributed education, utilizing both distance and face-to-face modalities to deliver
instruction (Lynch & Dembo, 2004). Blended learning can promote a strong sense of community (Babb, Stewart, & Johnson, 2010). A blended learning program is considered effective if it has a mix of traditional instructor-led learning, synchronous collaborative learning, asynchronous self-paced study, and practical, experiential learning (Khan, 2005). The asynchronous, self-paced component has an additional advantage that parts of the instruction can be delivered in almost any way, at any place, and at any time. Blended learning growth rates are expected to climb dramatically in the U.S (Albrecht, 2006; Kim and Bonk, 2006; Salam, 2011) and internationally (Alebaikan, 2012).

**Overview of History of Blended Learning**

The concept of blended education had its origins in distance education, which initially emerged as mail order courses that began over 150 years ago (Means, Toyama, Murphy, Bakia, & Jones, 2007). Despite its longevity, distance education’s reputation is viewed as convenient but of lower quality than traditional education (Means, et al., 2007). This reputation carried over into virtual (including blended) courses and degrees when these were first instituted (Lohr, 2009; Smart & Cappel, 2006). Virtual and blended institutions, especially in the early days, were perceived as lesser quality than programs at which the teacher delivered all instruction to the student in the same immediate physical space without any distance education component (Roberts, 2009; Smith, 1987).

Computer-based on-line learning has been available since the early 1960’s (Bersin, 2004). PLATO (Programmed Logic for Automatic Teaching Operations), developed by the University of Illinois in 1963 (Bersin, 2004) provided one of the first systems of dedicated on-
line learning via telephone systems. PLATO programs had definite attractiveness to learners and the system was used from adult education classes to high school classrooms to graduate level courses and was sometimes accompanied by in-person instruction to produce a blended learning environment (Gomes, 2012). There was an extensive library of courses through the early 1990’s; microcomputer versions are still available (PLATO History, 2012). A variety of technology-based learning programs followed PLATO between the late 1970’s into the early 1990’s (Koller, Harvey, & Magnotta, 2008), including USENET (connected with Duke University) (Park & Bonk, 2007), and CAPA (Bonk & Graham, 2006). The first educational institutions to dedicate themselves to internet-based education were UK’s Open University which opened in 1971 (Open University, 2012) and CALCampus.com; both offered fully on-line classes in 1986 and included administration, grading and group classes by 1995 (CALCampus, 2012). Blackboard software in 1997 (Blackboard, 2012), shortly after earlier formats like WebCT, developed in 1995 (Blackboard, 2012), and eCollege, developed in 1996 (Pearson, 2013), accelerated the growth of fully integrated on-line classroom environments, facilitating the development of asynchronous blended learning. In 2001, Moodle offered free source academic software, which encouraged literally hundreds of institutions to establish on-line access to coursework, an integral part of blended learning (Moodle, 2012).

In the late 1980’s and early 1990’s CD-ROMs were developed for computer-assisted instruction, while internet based blended learning was first used in the 1990’s (Bersin, 2004). The growth of both private for profit institutions and the flexibility of Web 2.0 technologies accelerated the expansion of blended learning environments dramatically (Alebaikan, 2012).
Reactions to the expansion of blended learning into established educational institutions were initially mixed, especially from the faculty perspective (Mattern & Shaw, 2010). Some faculty reported concerns that students might feel lost and not able to communicate with others as well as in a traditional face-to-face classroom (Mattern & Shaw, 2010).

However, blended learning has been shown to have several advantages over online learning: the courses are accessible, pedagogically effective, and have appealed to an increasingly nontraditional student population (Dziuban, Moskal & Hartman, 2007). These courses also provided instructor interaction and can provide a community of support which has been shown to be necessary for student retention (Smith & Blacknall, 2010). Because of these reported advantages, it was therefore essential to examine whether blended learning might lead to results which will increase student persistence and the confidence needed to succeed in the initial stages of postsecondary education, as this is the point in educational life in which students most frequently fail to persist (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Schneider & Yin, 2011).

Blended learning showed promise of responding to student desires for increased access and lower costs (Babb, Stewart, & Johnson, 2010; Dziubian, Hartman & Motsal, 2004; Green, 2003; Heaton-Shreshta, Mayb, & Burkec, 2009; Oh, 2003). However, some studies indicated some traditional faculty showed outright hostility toward or harbored reservations about blended educational environments (Beaudoin, 2007; Jaschik, 2006), while Oh (2003) and Heaton-Shreshta, Mayb, & Burkec (2009) observed that students’ perceptions of these new technologies were favorable. Students wanted the service, but were being told initially that the service desired was inferior in quality. However, the increasing need to offer flexible access to higher education,
driven by students’ financial and personal responsibilities and increasing competition among postsecondary institutions for students, made it increasingly likely and obvious that blended education would continue to expand as one of the entrepreneurial initiatives to meet student demand (Green, 2003; Lloyd-Smith, 2010; Morgan, 2009; Siemens & Tittenberger, 2009; Steck, 2003).

The concept of *habitus* which perpetuated expectations of improved social status through emulation (Bourdieu, 1986), seemed to explain why both students and parents/guardians expected students would attend a postsecondary institution. This *habitus* was also based on observation that college attendance and completion had produced rewards and this emulation would result in rewards to the student (Bandura, Ross & Ross, 1961/1963). Students did not have to attend college but they expected they would, and, perhaps felt that they must; this perception has remained consistent for at least twenty (20) years (Bourdieu, 1986; Grodsky & Riegelcrumb, 2010). *Habitus* also linked with Bandura’s self efficacy in that the expectation of the ability to handle college-level work led to entry into college (Bandura, 2011). But, the student/consumer had limited rights in holding educational institutions accountable. Students also have limited ability to complain about college, as they do not feel they have the luxury of rejecting college enrollment (Beh, 2000). Students who expected to enter but who were not academically ready might be placed in remedial classes which could have dissuaded them from further education (Fines, 2003; Long, 2010). Meanwhile, given the increased focus on student satisfaction (Kamenetz, 2010) faculty faced new performance expectations not previously encountered, including the expectation that blended learning be provided as an instructional option (Morgan, 2009).
Reasons Students Choose Blended Learning

Often students choose blended learning because of its convenience and the ability to regulate class attendance due to flexible scheduling (Auld, Bumberg & Clayton, 2010; Watson & Gemin, 2009). Most learners viewed the coursework as being more difficult than traditional learning and of higher quality (Rovai, 2004). This perception of increased difficulty and high quality may positively affect students’ perception of self efficacy (Bandura, 1994/2002). The in-person elements of the coursework provided the student contact with faculty as part of a learning community so students have partial access to a traditional brick and mortar learning environment (Bandura, 1993; Hannay & Newvine, 2006; Power and Gould-Morven, 2011).

Faculty Attitudes towards Blended Learning

Faculty members have expressed conflicting attitudes regarding blended learning (Hannay & Newvine, 2006). Studies have noted faculty willingness to teach blended learning, but some felt the courses were equal to or of lower quality than traditional courses (Hannay & Newvine, 2006; Maltby & Mackie, 2009; Power & Gould-Morven, 2011). Several authors noted faculty felt that blended courses might enhance student control of learning, encouraging students to use texts more fully (Coogan, 2009; Smith, Ferguson, & Caris, 2002), which may increase student self efficacy (Bandura, 2011).

The main reason cited by faculty for failing to respect, enjoy or encourage teaching blended learning was the perception that the blended course was not as prestigious—for students or themselves—as a traditional learning model (Hannay & Newvine, 2006; Maltby & Mackie, 2009; Power and Gould-Morven, 2011). Studies of professors’ motivation for teaching blended learning...
classes may even correlate with the professors’ own sense of self efficacy (Stewart, Bachman, & Johnson, 2010).

For instance, faculty who had extrinsic and intrinsic motivation to teach blended classes, who felt comfortable with the format, and who felt that their students would be able to learn as much or more in a blended environment, were quite willing to engage in this delivery (King & Dunham, 2005; Stewart, Bachman, & Johnson, 2010; Xu and Jaggars, 2011). It was not only the convenience that appealed to them; professors interested in peer evaluation were more likely to undertake blended courses (Xu & Jaggars, 2011).

**Discussion of Practical and Intellectual Goals: Focus of the Study**

The thesis’s practical and intellectual goals were grounded in the need to analyze whether blended learning can lead to positive changes in self efficacy, especially as perceived by faculty. The need for this is based on the acknowledgement that: 1) these courses are increasingly available at the community college level and at all levels of higher education (Allen & Seaman, 2008; Means, Toyoma, Murphy, Bakia, & Jones, 2010); 2) that students are utilizing these courses with increasing frequency (Habley, Valiga, McClanahan, & Burkum, 2010); and 3) that faculty attitudes toward coursework can affect the success or failure of course delivery systems (Bandura, Ross & Ross, 1961; 1963; Dede, 2007; Liu, Gomez, & Yen, 2009).

Rapidly changing curricula for a changing workforce require flexible educational delivery that keeps students motivated and committed (Githens, Crawford, & Sauer, 2010). Advances in technology make blended learning (Means, Toyoma, Murphy, Bakia & Jones, 2010; Paulsen, 2002) viable and inevitable (Allen & Seaman, 2008; Artino & McCoach, 2008; Bonk & Kim, 2005; Kerrey & Isakson, 2000). Asynchronous blended education is accessible, can be
self-paced within certain parameters, offers multiple opportunities to review materials (Means, Toyoma, Murphy, Bakia, & Jones, 2010), and accommodates working students’ schedules (Howell, Williams, & Lindsey, 2003; Stokes, 2006). Seventy-five percent of community colleges offer some form of blended course offerings (Bonk & Kim, 2005; Habley, Valiga, McClanahan, & Burkum, 2010).

A recent study suggested blended courses can encourage more interaction between teacher and student than face to face classes, increasing student metacognition (Akyol & Garrison, 2011; Bandura, 2011). These courses produced academic gains equivalent to or better than face-to-face instruction (Allen & Seaman, 2010; Castle & McGuire, 2010; Shea & Bidjerano, 2010). One study theorized this information may place students more in control of the courses they wish to take and the pace of their learning, and could increase self efficacy (Shea & Bidjerano, 2010). Other studies hypothesized that this control could lead to increased student retention (Eckland & Henderson, 1981; Mattern & Shaw, 2010).

However, research on student success for all students in community college blended courses suggested students need more self-discipline to participate in and complete blended courses than they do in face-to-face courses (Allen & Seaman, 2005). Blended course students also had far less involvement with other students, faculty and campus resources, making them more responsible for, and in control of their own learning experiences and rate of learning (Liu, Gomez, & Yen, 2009).

Liu, Gomez, & Yen (2009) tried to determine if social presence in a community could affect retention and grades. This quantitative study recommended implementing blended learning as one way to build effective communities. Blended learning mixes various event-based
activities, including face-to-face classrooms, live e-learning, and self-paced learning (Khan, 2005). Building effective blended learning programs, in theory, should increase self efficacy, which may increase interaction, integration, and collaboration, which, in turn, could improve course retention and grades (Khan, 2005).

However, no definitive correlation has yet been established between increased student self efficacy and blended education (Maltby & Mackie, 2009; Zajacova, Lynch, & Espenshade, 2005). Only a limited number of studies discussed the ways in which blended learning can increase student self efficacy, especially from the faculty perspective (Hodges, 2008).

**Brief Summary of Research Questions**

Since the focus of this study was on whether faculty members perceived that blended learning increased student self efficacy, the primary question was: In which ways do faculty members believe or not believe that blended learning can enhance community college student self efficacy?

Community colleges were the environment in which this study occurred. These institutions face special challenges in helping students achieve success. Often, community colleges must accept all applicants (Kumar, 2011). It is also sometimes difficult for these institutions to determine when students leave blended programs (Liu, Gomez, & Yen, 2009). Also, the three year associate’s degree completion rate for community colleges has been very low, reaching about 26% across the state of Massachusetts (Complete College America, 2011).

**Researcher’s Position**

The researcher had about ten years’ experience in teaching online, traditional, and blended formats and had been a student in all three formats as well (Gomes, 2013). Based on
experience from 2003 through the present, the researcher has heard the reaction of fellow faculty and education professionals in government who insisted that blended learning could work well or would not provide the same level of quality as traditional face to face learning. However, research refuting or reinforcing these faculty members’ perceptions have been inconsistent and limited in discussion of this topic (Hodges, 2008). Further, the question of whether or not blended learning can create an environment for contributing to self efficacy was a special concern of the researcher, primarily because of its potential for opening learning experiences that are both convenient and valid for large numbers of the population (Allen & Seaman, 2008; Artino & McCoach, 2008; Bonk & Kim, 2005; Howell, Williams, & Lindsey, 2003; Kerrey & Isakson, 2000; Stokes, 2006) and that can engage faculty enthusiasm, as this can be critical to course success (Dede, 2007; Liu, Gomez, & Yen, 2009). The researcher’s bias was that, as these course options continued to grow, faculty acceptance had been increasing and would continue to increase. Some faculty members, even in the limited number of early studies undertaken, have been impressed with the learning gains students have experienced through blended learning (Coogan, 2009; Liu, Gomez & Yen, 2009). It was possible that most educators were just demonstrating a healthy critical lens towards what is, for many educators, a new way of teaching, and faculty members’ reactions were not adequately researched to draw a conclusion concerning their perceptions of blended learning (Hodges, 2008).

Summary of Thesis Contents and Organization

The introduction to the Doctoral Thesis identified the problem to be researched and the basic research question that would be investigated, as well as the significance of the problem to higher education. The following sections provided more detail about self efficacy and blended
learning, as well as the definitions and history of both self efficacy theory and blended learning, and the importance of the topic to student success. The next section discussed the importance of understanding how blended education interacts with student self efficacy. The theoretical framework explained how blended learning fits into selected theories of learning, such as Bandura’s theory of self efficacy (Bandura, 1977; 2011), Vygotsky’s thematically-related theory of constructivism (1978), and Dede’s current thinking on education provided through web-based technologies, including blended learning (Dede, 2007; 2009). The thesis explored whether or not faculty view blended learning as a component to increase student self efficacy. The literature review provided a review of the theoretical foundations of self efficacy, constructivism, and on-line theory and their points of convergence. It also provided a review of field studies that discussed potential linkages between self efficacy and blended learning, and faculty assessment of linkages between self efficacy and blended learning. The literature review will also examine some of the pedagogical reasons for faculty reactions to blended learning. The next section described the theoretical framework, the lenses through which this thesis presentation will be examined.

Theoretical Framework

Self efficacy Theory

The theoretical framework encompassed self efficacy theory as described by Bandura, supported by the related theory of constructivism proposed by Vygotsky (Bandura, 1994/1995; Ferrari, Robinson & Yasnitsky, 2010; Vygotsky, 1934), and on-line theory (of which blended learning is a component) (Dede, 2007; 2009; 2011). The key theoretical foundations of this
study were grounded in Vygotsky’s learning theories and Bandura’s theory of self efficacy (Ferrari, Robinson & Yasnitsky, 2010; Miller, 2010; Swan & Shea, 2005). The overlaps between these two theories have been explored in length by Ferrari, Robinson, & Yasnitsky (2010). Bandura’s concept that self efficacy learning occurs in social environments (Bandura, 2011; Bandura, Ross & Ross, 1961; 1963) crosses over quite effectively into Vygotsky’s concept of “zones of proximal development” (Chaiklin, 2003; Vygotsky, 1934). Chaiklin (2003) in particular, emphasized that this concept is a collaborative learning approach, reliant on interaction between the student and feedback from the environment, rendering input on student competency attainment. Some early studies have shown a correlation between increased self efficacy and blended participation (Maltby & Mackie, 2009; Zajacova, Lynch, & Espenshade, 2005).

Bandura (2011) defined self efficacy as the perceived competency an individual feels when approaching a task. This implied that there is no objective evaluation of when an individual attains self efficacy (Bandura, 2011); rather, self efficacy was determined by an internal belief that the individual has completed or mastered a specific task or set of tasks. Bandura (2002) holds that beliefs in self efficacy determine how people think and act, whether with self-belief or self-doubt, whether they persevere or give up easily, and that self efficacy (and most learning) is prone to fluctuation based on the circumstances the learner encounters (Bandura, 2006, p. 309; Bandura, Ross & Ross, 1961; 1963).

Bandura (2011) warned that incorrect perceptions of one’s talents can be damaging to students in real world environments and notes that in certain instances, a general notion of self
efficacy can be more helpful than a specialized skills perception (Bandura, 2011). In most cases, self efficacy is context-specific (Tierney & Farmer, 2002). Bandura has noted the potential for virtual education as an important learning context and has stated that the environment is not limited to areas that are physically close. Bandura’s work integrating social cognitive theory with social network theory has encouraged research on the spread of self efficacy through social networks (Bandura, 2011). With the increasing amounts of time spent on social networks in virtual settings, Bandura allowed that “Social cognitive theory [the foundation of self efficacy theory] addresses the growing primacy of the symbolic environment and the expanded opportunities it affords people to exercise greater influence in how they communicate, educate themselves, carry out their work, relate to each other, and conduct their business and daily affairs” (Bandura, 2011, p. 4). Bandura (2011) also acknowledged that many individuals cannot exercise direct control over their environments but have the capability to exercise control by working in interdependent networks as a way of controlling their environment and hence of exercising self efficacy through this control (Bandura, 2006).

The self efficacy theory of Bandura (2002; 2011) formed the theoretical foundation of this study supported by the observations of Vygotsky (1978), and Dede (2007; 2009), with their respective emphases on self efficacy, constructivist learning theory, and the emphasis on student-teacher interaction and modeling behavior as foundational parts of the learning experience (Bandura, Ross & Ross, 1961; 1963). However, the key focus where the theories converge was that certain blended learning environments (discussion boards) mandate universal student participation, so students cannot fail to participate in class (Castle & McGuire, 2010), leading to increased self efficacy for students (Bandura, 2011). This theoretical foundation is explored in
the following literature review with other learning theories that clarify certain dimensions of Bandura’s central theory.

Section 2: Literature Review

Self efficacy and General Learning Theory

The literature review commenced with an overview of Bandura’s self efficacy theory (Bandura, 2002; 2011). Bandura’s concept of self efficacy found precedents in the general learning theories of Wundt (1897) and Vygotsky (1978) and Bandura’s early research on emulated behavior (Bandura, Ross & Ross, 1961; 1963). An examination of these theories is provided along with Dede’s (2007; 2009) and others’ recent work in online theory, and also followed some of the evolution of blended theory and self efficacy through recent papers and publications.

Wundt started the path towards identifying learning as a conscious activity in his early studies on consciousness (Ferrari, Robinson & Yasnitsky, 2010; Wundt, 1897). Vygotsky developed the concept of a culture causing changes in perception, and established a theoretical foundation for constructivist educational activities and the root for later thinkers like Bourdieu (Panofsky, 2003). Bandura built a foundation for learning based upon behavioral observation and emulation (Bandura, Ross & Ross, 1961; 1963) and increasing levels of perceived competency (self efficacy) as a foundation for educational success (Bandura, 1982; 2002; 2011).

Wundt, Vygotsky and Bandura independently developed systems in which learning developed as change in consciousness, based upon interaction with one’s surroundings (Ferrari,
Robinson, & Yasnitsky, 2010; Vygotsky, 1978; Wundt, 1897), leading, ultimately, to feelings of control over one’s environment (Bandura, 2002).

“It follows, then that the expressions (of) outer and inner experience do not indicate different objects, but different points of view from which we start in the consideration and scientific treatment of a unitary experience (Wundt, 1897, p. 2)”

Similarly, Vygotsky (1978) included historical experience, societal structure and the interaction of both as developing consciousness for the individual. However, he added the dimension of the “zone of proximal development” in which students increase competency and developmental capacity through association with individuals of higher competency levels (Vygotsky, 1978). Vygotsky (1977) viewed the mechanisms of social behavior and consciousness as identical. This corresponded to Bandura’s observation that young people learn based on observation of the punishments and rewards received by their elders (Bandura, Ross & Ross, 1961; 1963). Wundt (1897) also noted that social experiences and history are not separable from the psychological perspective.

Vygotsky (1978) gravitated towards the study of how children learn. This was a cross-disciplinary study of the child learning system which led ultimately to a study of human development. Vygotsky (1978) hypothesized that higher forms of behavior in children were experienced twice, first through exposure to group collective behavior, then as a way of behaving individually, reflecting Wundt’s earlier observations (Ferrari, Robinson & Yasnitsky, 2010; Vygotsky, 1997; Wundt, 1897). Vygotsky viewed these changes as reflections of a change of consciousness that can reflect new types of behavior prompted by new societal/educational scenarios (Vygotsky, 1989; 1997). Both theorists were ultimately tied together in Bandura’s work in which Bandura (2002; 2006) notes that different points of view (Wundt, 1897) can shift
through cultural exposure (Vygotsky, 1997) leading ultimately to Bandura’s theory that self efficacy can change through new social settings (Bandura, 2011).

Finally, Bandura (1977) defined a mechanism for showing the method through which individuals increase skills and seek new challenges—the concept of self efficacy, which can work to encourage individuals to seek increasingly challenging tasks, or conversely, can decrease the willingness to undertake new experiences. Bandura’s perceived self efficacy is the person’s belief about the ability to produce performance that has a meaningful effect on their lives. This can produce optimism and a sense of self control through cognitive, motivational, affective and selection processes. Individuals with a strong sense of self efficacy approached difficult tasks as opportunities for mastery rather than as hazards, leading to interest and involvement. These individuals increased effort and persisted when failure threatened and recovered quickly after setbacks, and failure was considered the result of lack of skills which could be learned, whereas people without this self-efficacious outlook tended to avoid unpleasant or difficult tasks (Bandura, 1997; 2011).

Personal perceptions of self efficacy are a critical element of motivation (Bandura, 1997; Pintrich & Schunk, 1996). Bandura (1997) defined self efficacy as individuals’ judgments of their abilities to plan and carry out the necessary behaviors to achieve specific goals. Linnenbrink & Pintrich (2002) pointed out that adaptive self efficacy beliefs can function as enablers of academic success. Learners with high self efficacy were and are most likely to use self-regulatory learning strategies and study skills that adapt to their environments (Lynch & Dembo, 2004). Learner perceptions of personal self efficacy reinforced self-regulatory processes, affecting motivation and performance. A person with a strong sense of self-regulatory efficacy
uses it to enhance task performance efficacy (Bandura, 2002; 2006; 2011). This can motivate further self-regulation to pursue additional academic attainment (Bandura, 2002; Lynch & Dembo, 2004).

Self efficacy improvement was most often achieved by encountering and overcoming obstacles to success (Bandura, 2011). Some measure of effort must be expended for self efficacy to occur, as easy successes give little feeling of accomplishment, leading to impatience and little persistence (Bandura, 2002). Since social models are critical for learning, according to Bandura, Ross and Ross (1961; 1963), another method of building self efficacy was through social models (Bandura, 2002), Bandura, Ross and Ross (1961; 1963) noticed in early learning studies that young people modeled their own behavior based on whether or not adults they observed had been rewarded or punished for behavior. Conversely, failure of a social model lessened the observer’s belief that he or she can succeed, lowering self efficacy (Bandura, 2002), which mirrors Vygotsky’s belief that social context and interaction with others triggered changes in behavior (Vygotsky, 1934). Models also transmitted effective or ineffective modes of behavior to the learner. Following successful or unsuccessful behavioral models increased or decreased self efficacy (Bandura, 2011; Bandura, Ross & Ross, 1961; 1963).

Social persuasion—convincing the person that he or she has the ability to succeed—also increased self efficacy (Bandura, 2002; 2011). This strategy can increase the individual’s willingness to persevere even if discouraged. However, it has been suggested that it is more difficult to instill self efficacy through social persuasion than to subvert self efficacy. “By constricting activities and undermining motivation, disbelief in one's capabilities creates its own behavioral validation (Bandura, 1994, p. 3)”. Finally, individuals’ emotional states can increase
or decrease perceived self efficacy (Bandura, 2002). Reducing stress reactions helped decrease negative emotional states and turn negative emotional states into opportunities to seize control (Schwarzer, Luszczynska, & Wiedemann, 2007).

Self efficacy is a behavioral mechanism embedded within Bandura’s larger social cognitive theory (Bandura, 2011). Social cognitive theory (Bandura, 1982; 1997) views self efficacy as a form of self-evaluation influencing behaviors, effort and persistence when encountering obstacles, and the mastery of that behavior. Self efficacy is not a measure of skill but of belief in one’s ability. As Bandura (2006; 2011) noted, no single definition of self efficacy fits all situations. Self efficacy is a measure of capability, not intent (Bandura, 2006). The perception of self efficacy influences directly whether a person acts in a strategic or erratic fashion and whether he or she possesses optimism or pessimism at the possible outcome, as well as the willingness to undertake challenging tasks (Bandura, 2006).“Self efficacy is concerned with perceived capability… (and) should be phrased in terms of can do rather than will do. Can is a judgment of capability; will is a statement of intention (Bandura, 2006, p. 308-309)”.

“Efficacy beliefs influence whether people think erratically or strategically, optimistically or pessimistically. They influence individuals’ courses of action, their challenges, goals, and commitment and the effort put into such endeavors, expected outcomes and their perseverance, resilience, and their ability to cope with taxing environmental demands & life choices (Bandura, 2006, p. 309)”.

Group interaction has been and can become a tool of efficacy. Group performance depends on interdependent effort and group self- efficacy can enhance collective productivity (Stajkovic, Lee, & Nyberg, 2009). The connection between Vygotsky and Bandura increases
when one considers both theorists stressed peer interaction and mentor interaction with the student. Both theorists stress that more learning occurs under the influence of an expert authority in control of learning (Ferrari, Robinson & Yasnitsky, 2010; Tudge & Winterhoff, 1993). The need for legitimate authority when learning is transmitted links back to the environmental feedback that Bandura stresses as essential to the development of self efficacy (Bandura, 2011). Blended learning also established a formal, in-person link, missing in solely on-line environments (Carman, 2005; Watson, 2008). Carman (2005), however, would also claim that blended learning is a pragmatic educational approach, not reliant on any one theoretical foundation.

Self efficacy affects how much control students imagine they retain over their educational goals (Dziuban, Moskal, & Hartman, 2007). Specifically, students can attain immediately marketable postsecondary skills certification at the community college level (Schneider & Yin, 2012). Current national policy, which calls for increasing the level of community college completions (Fogg & Harrington, 2009; Schneider & Yin, 2012) reflects an emphasis on utilizing community colleges to increase students’ skills levels and produce economically competitive individuals (Fogg & Harrington, 2009). Blended learning has the potential to change the paradigm of high cost exposure and sacrifice that traditional learning encompasses (Schneider & Yin, 2012).

**Blended Learning and Self efficacy**

This section will examine the connections between blended learning and Bandura’s (1994) theory of self efficacy. The analysis will start with blended learning. Dede (2009) hypothesized that students need to establish communities and faculty need to establish “scalable”
coursework, the models of which can be applied in multiple contexts, and which can serve as a foundation for blended learning environments. He also argued that the current labor intensive model of teaching is wasteful and unnecessarily restrictive (Dede, 2011). Based on grade levels, the current educational system reflects a Piaget-inspired model of learning that measures learning based upon age and stages (Blake & Pope, 2008) tied to the factory/business model of education developed by Cubberly (1920) (Glass, 2004). The current model ignored student needs, differing rates of student development, ignored the need to produce teaching environments that can be modified for larger or different environments (scalability), and, overall, failed to meet the flexibility of learning models needed for the 21st century (Dede, 2009).

Dede (2009) has been critical of the pre-digital and some current digital instructional practices because he believed they value one on one presentation paradigms rather than encouraging students to work in groups, a skill he asserted has always been valued in the work force (Dede, 2007). The ability to engage in group problem solving and work as part of a team has become a new corporate paradigm, especially among the “digital generation” (Trompenaars & Woolliams, 2003) and this move away from individual decision-making has been noted, not only in business circles, but in the way that individuals seemed to interact in digitally-moderated groups, which are an important component of blended learning. For instance, Dede (2007; 2009) has noted that team interaction is important in understanding how students learn in digital contexts. Recent studies suggested that digital natives—students who grew up using computers and online technology--appeared to respond better to all digital classroom environments in which groups share problem-solving strategies, including blended learning environments ((Evans, Mulvihill & Brooks, 2008; Prensky, 2001; 2008). This could be interpreted as the manifestation
of Bandura’s experiential reinforcement of self efficacy (Bandura, 1997) and Vygotsky’s “field of proximity” (Blake & Pope, 2009) and the manifestation of self efficacy using the group as a learning feedback filter, creating the learning community Bandura (2011) views as important for learning (Ferrari, Robinson & Yasnitsky, 2010). Dede (2007; 2009) also recapitulates Wundt’s (1897) and Bandura’s (2002) perspective on history and experience when he focuses on the sustainability, spread, shift and evolution as developmental activities connected with adaptation of technology, noting that all of these operational areas take place within a larger context, and that they also generate user feedback in order to effectively evolve—indeed sustainability is largely reliant on the new system’s ability to integrate effectively with existing systems to ensure adoption (Dede, 2009).

An integral part of virtual and distance education, including blended learning, is the process of “scaling”, which increased the “depth” of the coursework enabling the design be “sustainable”. “Scaling” also allowed users to be co-evaluators and co-designers (Dede, 2007). All of these could add to the sense of student self efficacy (Bandura, 2002). Student input is an integral part of the development process (Bandura, 2011; Dede, 2007).

Some institutions have been developing almost exclusively on-line institutions, with some in-person student-teacher interaction as part of their curriculum (Allen, Seaman, & Garrett, 2007). Other institutions supplemented their traditional “brick and mortar” offerings with on-line offerings. Blended learning now appears to be a fixed feature of higher education with real growth potential (Kim & Bonk, 2006). The Congressional report, The Power of the Internet for Learning (Kerry & Isakson, 2000), projected an estimated increase in web-based learning from 5% of all college students in 1998 to 15% in 2002 (Kerry & Isakson, 2000, p. 5). The Sloan
Foundation found that over 20% (3.9 million) of students in degree granting programs were participating in on-line and blended courses (Watson, 2008). Finally, 58% of college faculty surveyed believed Internet education, including blended learning, was critical to the future of their institutions (Allen & Seaman, 2008), and growth is expected to continue to accelerate rapidly over the coming years (Allen, Seaman & Garrett, 2007; Babb, Stewart, & Johnson, 2010).

This rapid expansion of blended education should, at least in terms of the adjustment of student and faculty, have significant interactional implications. The key difference between all kinds of digital learning—including blended learning—and traditional face-to-face learning, appears to be the apparent speed of access to information, sometimes with overwhelming quantity, that digital learning provides (Dede, 2009). However, on-line and blended learning, based on several studies (Alonzo, Lopez, Manrique, & Vines, 2005; Carman, 2005), also seemed to show some differences in communication style which may affect self efficacy (So & Brush, 2007). Learning quality and quantity have been believed to suffer when a student is receiving instruction in a solely online format as opposed to a blended learning experience (Lim & Morris, 2009).

**Contemporary Research on Blending Learning and Self efficacy**

While the previous section focused on the theoretical foundations and environment of the study, this section will analyze several recent studies that are relevant to this research. An early study indicated that on-line education offered without a blended environment might not form Vygotsky’s “proximity of influence” (Daniel, Schwier & McCalla, 2003) because online classes
lack conventional physical proximity (Swan & Shea, 2005). In addition, it has been noted that completion rates for students in blended courses are sometimes worse than for students in traditional settings (Herbert, 2006), casting some doubt on the idea that blended learning might increase self efficacy. Reasons for low completion rates may be attributable to other causes than lack of self efficacy, however (Xu & Jaggars, 2011). Finally, a study of blended learning questions whether links between blended education and increases in student self efficacy exist at all (Lynch & Dembo, 2004).

Some authors have believed blended learning offered students access to a constructivist learning environment (Dziuban, Hartman, & Moskal, 2007; Koohang, Riley & Smith, 2009; Rovai, 2004). Vygotsky believed the constructivist bias humans exhibit was capable of changing human behavior (Vygotsky, 1934) linking to Bandura’s observation that increased self efficacy leads individuals to attempt more challenging tasks (Bandura, 2002). Students—particularly adults and some students now entering community college—have experienced most of their learning in teaching environments directed by the instructor and have had limited exposure to learning that requires student involvement in the development of the learning experience (Dziuban, Moskal & Hartman, 2007). Blended formats may be a new experience for some learners. An additional concern is whether faculty members can fairly assess learning gains by and provide adequate feedback to students in the relatively new blended environment (Dede, 2007). Taken together, these issues can cause social isolation, which opposes the development of a shared learning environment that social constructivism learning modalities should provide students (Wicks, 2010).
Another study (Zajacova, Lynch, & Espenshade, 2005) examined the link between self efficacy and retention within a much smaller group (107 students at the City University of New York). The study sought to identify whether self efficacy could provide an effective barrier against stress, and also whether self efficacy increased student retention. The study used three indicators of fit: the model chi-square, the root mean squared error of approximation (RMSEA), and the incremental fit index (IFI) (Fraenkel & Wallen, 2009). The results indicated that self efficacy improved retention of traditional age students who moved from the first year to the second year, but not among students who moved from the second to the third year. Given the findings presented above (Reason, 2009), the increase in retention during the first year would be significant, as rates of attrition halve with every passing year (Tinto, 2006). The first year retention rate was critical for setting the path of ongoing retention (Reason, 2009; Tinto, 2006).

Moving into the virtual world, two studies showed a link between virtual learning, self efficacy and retention. The first study, from the University of Wolverhampton, UK, (Leese, 2009) used two groups of thirty-seven students. The qualitative study sought to determine if a virtual learning environment increased students’ involvement in external teaching activities and increases linkages between students outside standard classroom instruction. The focus shifted from teacher-generated to student-generated activity using a blended (part on-line, part on ground) environment (Leese, 2009). A five question questionnaire was used to assess what students learned from the class. Initial results were somewhat disappointing because students were not engaging as much as expected. Through encouragement by tutors, one group showed grades at a par with the standards of the class and one group exceeded expectations. While class composition (education majors) may have colored the results, students reported increased ability
to use technology, and work with diverse populations. The school had to change strategy midway through the study, because one of the instructors was unwilling to make virtual assignments, leading to the need for tutoring (Leese, 2009).

A case study (Nicols, 2009) used formative assessment and feedback processes through online systems to improve student performance in the first and second years of college. Psychology and French classes were studied. Psychology went from a large cohort of 550-650 students to 82 groups of 6-7 students, intended to deeply analyze texts. Research suggested that formative assessment helped build autonomy/self efficacy in students and the theoretical framework incorporated constructivist principles in which students actively developed their own learning (Lai, 2012). In theory, this would build student confidence and avoid student attrition (Rovai & Jordan, 2004). Time in class gave the ability for continuous feedback to students and faculty used several encouraging prompts. Data was gathered through questionnaires using a Likert scale, focus groups, and grade analysis. Students showed improvement in learning independence in both courses and survey results showed increasing self efficacy among students who participated. Grades improved and students told researchers they had worked hardest, but also learned more, on these courses (Zajacova, Lynch, & Espenshade, 2005).

One study (Hughes, 2007) set in the UK attempted to determine if blended learning could be used to increase student retention for at-risk learners through on-line tutors. Separate student samples of 20 (no assistance from on-line tutors), 15 and 30 (both groups assisted by on-line tutors) students in education courses were the groups under observation. The virtual intervention was to help students integrate into the institution (Tinto, 1975). Students who failed to turn in assignments were assisted by on-line tutors. Compared to the first (non-intervention)
group which showed 75% of students submitting coursework, the two subsequent groups showed submission rates of 94% and 87% respectively. Students credited the tutors with high levels of support. A flaw in the study may be that students were all aware they were in this group, possibly causing a type of Hawthorne Effect (Fraenkel & Wallen, 2009).

In an Australian study (Nichols, 2010) course completion data from the national data center, Laidlaw University and student survey responses were compared. Students voluntarily responded to the surveys as part of course registration. The sampling methodology was therefore random. The study’s intended to determine if university support increased the potential for retention of online students in post secondary institutions. The study concluded that students were aware of the lack of support services, attributing retention in blended education to their own motivation, corroborating earlier observations that self efficacy was an important determinant of success (Nichols, 2010; Reason, 2009; Tinto 1975).

Maltby & Mackie (2009) assessed the usefulness of blended learning activities for helping the “disengaged” student stay in postsecondary education. Two large online program modules comprised of about 1400 students and using components of blended learning such as tutors (Organizational Studies & Marketing) were chosen for the study. Student engagement was judged based on the number of computer clicks each course would generate. Taking its theoretical foundation from Bandura’s (1988; 2011) concept of student self efficacy, the researchers compared the number of online “clicks”—a high number of clicks is high engagement and a low number of clicks low engagement— with student grades. This analysis of key click patterns against performance, helped the researchers notice that disengaged students remained disengaged as efforts to engage them bore no fruit; students in marketing showed
improving performance, which peaked, and then declined. The study was therefore inconclusive and may have been more effective if interviewers could have asked why students chose to leave or stay.

Two additional studies from different locations showed comparable results. In a UK study (Heaton-Shreshta, Mayb, & Burkec, 2009), a blended learning environment was used to increase student support and better prepare students for classes. Consequently, students felt increased self-confidence and self-determination through the use of virtual learning environments, but staff felt that their efforts to engage students were being countermanded by the virtual environment (Heaton-Shreshta, Mayb, & Burkec, 2009). Students observed that the blended environment provided some of the recommended solutions of Tinto (1985, 1987) and Forbes (2008) because it enhanced academic integration, accommodated learning styles, helped increase confidence and the students’ sense of control, and enhanced the student experience by providing support from the institution (Heaton-Shreshta, Mayb, & Burkec, 2009). In a national study (Benson, 2007), the author discusses blended and on-line learning as viable learning options for low income adults. The survey population was chosen from an educational organization that served 500 students. The second group was the sample group. The study gathered data on 126 ESO’s (educational support organizations) who were on the current email list, and these individuals received a twelve question survey. The survey revealed, however, that only 23% of ESO’s had online or blended instruction. Screening telephone interviews were held with students of ESO’s with 200 or more participants. The study noted that the ESO’s were concerned that lack of consistent internet access for students and that students might not be able to handle online work or blended work emotionally or academically, requiring on-campus
support. Students were generally favorably inclined towards online or blended coursework (Benson, 2007).

Research conducted in the UK (MacKenzie-Robb & Ross, 2008) found that learners in online and blended learning courses in both Open University and Sheffield University showed that learner independence, self efficacy, self-regulation, and motivation were considered a key factor in these courses’ learner success, although appropriate support mechanisms, appropriate learning activities, opportunities for early success and feedback can allow learners to develop qualities like self efficacy. However, many student respondents in this survey, while appreciating the ease of accessing the coursework, noted that the use of computers took away from the subject but the respondents also felt that the use of technology would be instrumental in helping them complete the course. Eighty-seven per cent of the tutors felt this blended e-learning opportunity had provided a greater choice for students’ learning opportunities; less than 2% of tutors reported that students exhibited low levels of motivation during the course (MacKenzie-Robb & Moss, 2008). Most results indicated that students derived additional academic benefit from blended learning; the next section will examine their perceptions of whether it increased self efficacy.

**Student Perception of Self Efficacy and Blended Learning**

The value of blended learning from a student perspective was supported by several studies (Coogan, 2009; Lim, Morris, & Kupritz, 2007; Rovai & Jordan, 2004; Watson, 2008). Research indicates blended courses can accommodate many different student learning styles, allowing it to incorporate tools which have aided auditory learners, such as face-to-face lectures, and visual learners, such as messages posted online or streaming videos (Coogan, 2009). Students also engaged in class work at any time, allowing students to post at their peak
learning/functioning times and allowing for the different rates at which individuals process and learn. The teacher can add modalities to help engage students in review of the material (Coogan, 2009).

Blended learning can be available to student populations who cannot afford to spend extended periods of time on campus (Coogan, 2009). Also, students can gain some of the convenience of totally on-line courses while not losing direct personal contact with an instructor (Coogan, 2009). Several studies (Lim, Morris, & Kupritz, 2007; Rovai & Jordan, 2004; Watson, 2008) indicated that blended and online courses produced learning gains which equaled or surpassed the results achieved through traditional classes. Using a blended approach provided instruction in a variety of learning modes which can aid the learning process (Coogan, 2005).

Shen & Liu (2011) noted how few student surveys of student self-regulation in blended learning environments had been conducted. Self efficacy is a component of self-regulation (Bandura, 2002), and the component skills needed for success in online or blended learning include “motivation, meta-cognition, time and environment management, help seeking and Internet self efficacy…(Shen & Liu, 2011, p. 1102)”. Students with high self efficacy have the ability to adopt self-regulatory strategies to learning goals, so self efficacy has a reciprocal effect on learning outcomes (Shen & Liu, 2011). Shen and Liu (2011) concluded that students with more experience (at higher level postsecondary stages) had greater self-regulatory ability than less experienced students and that self-regulatory skills could be learned.

The latter finding is consistent with an observation made by Becker and Gable (2009), who noted that community college students entering postsecondary institutions for the first time had no frame of reference to judge how well they will do on specific academic tasks in a new
learning environment. The concept of generalized self efficacy, in which a person can adjust to a new environment as an adaption to new surroundings, was more critical to success than academic self efficacy, because the adjustment to new environments is a generalized success strategy that indicates the ability to persevere even if relevant academic skills are not evident immediately. The requisite skills can be learned through persistence (Becker & Gable, 2009).

Several successfully tested models for student retention named self efficacy as an important factor in having students stay in school (Rendon, 2006). As noted earlier, blended learning models in particular have been cited in several authoritative studies as producing excellent academic outcomes, superior or equal to either traditional learning or totally online classes (Amira & Jelas, 2010; Swan, 2003). These observations eliminated the objections to blended environments including the concepts that it could not work for certain student populations (Allen, 2006; Hannay & Newvine, 2006; MacKenzie-Robb & Moss, 2008) or that blended learning lacked human contact essential for student success (Daniel, Schwier, & McCalla, 2003; Tinto, 2006). Most recent literature apparently supported blended learning as a viable and effective learning modality (Amira and Jelas, 2010; Lim, Morris, & Kupritz, 2007; Watson, 2008). Kim and Bonk (2006) noted that blended and virtual learning have been vetted more thoroughly than any other learning approach and that traditional face to face classroom model has not proven a perfect pedagogical model (Kim & Bonk, 2006).

Rovai & Jordan (2004) have independently pulled together significant aspects of Bandura’s theory (2011) under the mantle of a comparison of blended learning with traditional and online courses. This was a significant contribution to the literature in that it pulled many of the streams discussed here into one central locus of thought, although the study was not
conclusive due to lack of a control group. Rovai and Jordan (2004) stressed the sense of community and connectedness that blended learning provided students, reinforcing Bandura’s concept of adaptability (2011) and Vygotsky’s (1978) and Bandura’s, Ross’s and Ross’s (1961; 1963), concept of the observation of community behavior on education. Some students indicated the blended learning environment prepared them for more advanced coursework (Rovai and Jordan, 2004, p. 10) showing some overlap with Bandura’s (2011) theory of self efficacy. However, Rovai and Jordan’s (2004) finding that blended learning could produce a sense of community, and that students benefitted from this sense of community to increase self efficacy, are almost ten years old. Blended learning has continued growing in the interim (Peinovich, 2008) and the link between the two should be explored further.

Some students found challenges to self efficacy and success in blended courses because of computer-related phobia experienced by about 50% of students (Lloyd-Smith, 2010) but the academic success of those who took blended courses exceeded that of students who took either on-line or traditional face to face instruction (Lloyd-Smith, 2010). Rovai and Jordan’s (2004) study assumes importance as it comes from practitioners, and it was also one of the few studies that intentionally explored, promoted and discussed blended learning, student retention and self efficacy deliberately and systematically.

A significant argument in favor of a blended learning environment over an on-line environment was Rendon’s Concept of Validation & Communities of Learning (2005), which asserts that student participation in college life is essential to academic performance, increasing student persistence in college. An inability to connect with academic or social subsystems led to early departure among all students (Rendon, 2005), but the author noted connection is viewed
differently by different age groups. Students over 50 years of age prefer face to face contact, while younger students appear to prefer electronic access to coursework. Rendon believed this may render current retention models, based on face to face contact, obsolete (Rendon, 2006). However, in both cases the concept of student-centered learning whether provided through increased interaction or the ease of access to blended or on-line learning, remained a central theme, and the idea that students should proceed without any external supports or assistance is outdated and counterproductive to success (Rendon, 2005), which supported a blended learning model. This concept of learning connected to Bandura’s idea that self efficacy leads to increased adaptability, including increased adaptability to the environment (Bandura, 1992; 2002; 2006; 2011; Rendon, 2005).

Bean and Eaton (as cited in Myers, 2003) based their model of college student retention on four psychological foundations, one of these being self efficacy (Myers, 2003; Yorke, 2004). The others are: attitude-behavior, coping behavioral (approach-avoidance) attribution, or “locus of control.” Some of the successful retention programs they had observed, such as learning communities and freshman interest groups, rely on these psychological processes (Myers, 2003).

**Faculty Reaction**

Studies showed a significant difference between the outcomes students seemed to achieve as demonstrated in quantitative assessments of their work in blended classes and how faculty viewed the results from a qualitative assessment of the quality of the education provided (Hannay & Newvine, 2006; MacKenzie-Robb & Moss, 2008). Students have proven to be very receptive to blended learning based on several studies (Coogan, 2009; Lim, Morris, & Kupritz, 2007; MacKenzie-Robb & Moss, 2008; Nichols, 2009; Rovai & Jordan, 2004; Watson, 2008;
Zajacova, Lynch, & Espenshade, 2005). This assessment was not universally shared in non-quantitative assessments of these learning modalities (Hannay & Newvine, 2006; MacKenzie-Robb & Moss, 2008). These findings indicated a profound disagreement between statistical studies, measurable outcomes and perceptions, particularly on the part of faculty, which led to the question as to why a gulf in perceptions appeared to exist.

Faculty reactions concerning the quality and usefulness of blended learning versus traditional classes seemed at odds with student reactions (Kim & Bonk, 2006; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009) in that students appeared to enthusiastically embrace the new technology, while faculties appeared less enthusiastic. Some faculty resistance to virtual learning has been noted, which may diminish with increased exposure to blended and virtual learning (Hannay & Newvine, 2006).

There is a certain consistency in how researchers depicted the elements contributing to student success in virtual, blended and traditional instruction (Rovai & Jordan, 2004). Three factors are cited as necessary for success in blended and on-line learning and traditional environments that benefit the student: 1) the teacher successfully engages the student; 2) the student has a sense that he or she has access to instruction; and 3) the student feels, to a certain extent, that he or she is in control of the learning environment (Byrk, 2006; Oblinger & Oblinger, 2005). A blended format allows convenience, improved access, control over schedules, and access to faculty and student support in one package (Xu & Jaggars, 2011). Hodges (2008), however, noted that self efficacy research in blended and on-line learning is in its infancy.

Amira and Jelas (2010) believed there should be some consideration that students’ learning styles may vary according to gender, age and course type in a blended learning
environment. For example, science students may benefit from structured lecture and hands-on experience, but social science students may prefer to be given individual tasks in which they can work independently. Independent, self-regulated students appeared to learn best in self-study with limited guidance (Amira & Jelas, 2010; Bandura, 2002; 2011).

Huang (2002) noted several barriers online educators encountered when providing blended learning in a constructivist environment (Huang, 2002). The first barrier Huang noted was learner isolation. All learners, according to Huang (2002), particularly adults, relied on their peers in addition to their faculty. Also, Huang believed instructors needed to be cognizant of different student backgrounds, living arrangements, work, family concerns, and students may have disparate motivations for taking courses, all of which may affect the student’s online relationships (2002). Huang (2002) felt this presented difficulties when interaction occurs online. In addition, Huang (2002) recommended that faculty avoid the temptation to pre-authenticate learning, which violated the constructivist learning theory of learners developing their own learning experience (Huang, 2002).

This literature review has thus far has largely focused on how Bandura’s self efficacy model interacts with other similar theories and blended learning theory and whether studies support that blended learning has an effect on self efficacy (Majer, 2009; Puzziferro, 2008). The review focused on community colleges (Poellhuber, Chomienne, & Karsent, 2008; Puzziferro, 2008). The one area that showed inconsistency was the difference in perception between how students and faculty viewed the impact that blended learning had on self efficacy (Hannay & Newvine, 2006; Xu & Jaggars. 2011). Faculty perception of blended learning and whether it shapes self efficacy for students therefore, became the area of study of this thesis.
Faculty reaction to blended learning covered a wide, variegated range. Establishing blended learning courses can require extra work initially for faculty (Power and Gould-Morven, 2011). Although innovators in blended learning cited administrative support, there seemed to be faculty resistance to expansion into blended learning (Albrecht, 2006). There appeared to be a variety of reasons for this resistance, but this review focused on whether faculty thought blended learning actually improved student self efficacy.

The studies that exist used indirect means to assess faculty opinions of whether student self efficacy improved in a blended learning situation. For instance, some studies cited previously (Kim & Bonk, 2006; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009) reached the conclusion that faculty did not feel students use of blended learning increases self efficacy. Maltby and Mackie (2009) identified lack of student interaction as a key factor in supporting their doubts. Also, some studies indicated direct hostility toward blended learning on the part of faculty (Beaudoin, 2007; Jaschik, 2006).

Allen (2006) argued that on-line education may set students of all ages up for failure by removing them from the campus experience, an important element of support for student success. A meta-analysis of 400 existing studies which reviewed the reasons for student non-completion (Lotkowski, Robbins, & Noeth 2004) found social factors surpassed academic factors in terms of retaining students. A blended course would need to address Allen’s (2006) concern about alienating students from campus life, a concern shared by Tinto (2006) and several followers of principles established by Vygotsky (Daniel, Schwier, & McCalla, 2003).

Lynch and Dembo (2004) reported highly favorable outcomes regarding student self efficacy in a blended class, but noted that the school used rigorous selection and the design of the
modules contained self-regulatory supports. This quantitative study did find a significant correlation between grade level attainment and self efficacy. While the study encouraged faculty to consider self efficacy as an important factor in student achievement and proposed several study designs to research this link, there was no survey or examination of faculty attitudes toward blended learning and its influence on self efficacy.

Yuen (2011), in his study of e-learning platforms, noted that it was thought that increased materials and supports for students in terms of additional on-line materials, might increase student engagements and increase student self efficacy but even when faculty had adequate support in terms of technology platforms and technical assistance, this was sometimes insufficient to interest faculty in increasing technological support, as they felt they had sufficient materials for students, and ample technology (Yuen, 2011). This underscored the importance of faculty making any system viable and credible to students.

A qualitative study of Elluminate and other synchronous on-line software that emulates a blended environment showed students and tutors both had positive reactions to regular student feedback and real time contact with faculty; tutors felt it developed user autonomy, a component of self efficacy (McBrien, Jones, & Cheng, 2009).

In some studies (MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009), student reaction and tutor reaction often didn’t agree with faculty reaction. Several relatively recent studies noted that the basic approach to instruction is “teacher-centric” (Murphy & Rodriguez-Manzanares, 2009; Popov, 2009; Zawacki-Richter, 2009). More directly, the teacher has been accustomed to being the person in charge, dictating content (Zawacki-Richter, 2009), being the expert authority (Popov, 2009) and being the “sage” who has all
the answers (Murphy & Rodriguez-Manzanares, 2009). By opening up a blended learning environment as a learning community (Zawacki-Richter, 2009), faculty may start to sense, correctly or erroneously, a loss of control of the teaching environment (Murphy & Rodriguez-Manzanares, 2009; Popov, 2009). The highest priority cited as a professional development need in a 2009 Delphi study was how to teach faculty to build communities of learning so students and faculty can be co-teachers and co-learners (Zawacki-Richter, 2009).

There are a great many philosophical foundations that supported blended learning from a pedagogical perspective corroborated by several studies (Green, Edwards, Wolodko, Stewart, Brooks, & Littledyke, 2010; Kim & Bonk, 2006; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009). However, based on the reviewed studies, most faculty members have been less than enthusiastic about the use of this delivery method. Some studies revealed that faculty view the learning environment and results as being inferior, or in most cases, less desirable for students than traditional face to face classes (Kim & Bonk, 2006; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009; Power & Gould-Morven, 2011), despite evidence that demonstrates, on average, that on-line and blended learning produced academic results that are equivalent to, and in some cases surpassed, traditional face to face instruction (Alghazo, 2010; Coogan, 2009; Swan, 2003).

Given the growth of blended learning (Means, Toyama, Murphy, Bakia, & Jones, 2010; Peinovich, 2008), comparatively few qualitative studies have been conducted on blended learning and its effect on self efficacy. The use of quantitative tools have produced some very interesting data, although the data has not been able to explain why students and faculty seemed
to view changes in self efficacy differently in blended learning environments (Kim & Bonk, 2006; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009).

Self efficacy, as has been stated previously, is a perceived state (Bandura, 1994; 2011) and some studies suggest that blended learning does increase self efficacy (Auld, Blumberg, & Clayton, 2010; Rovai & Jordan, 2004). Yet other studies, especially those which cite faculty opinion, generated reactions which ranged from tepid to hostile (Power & Gould-Morven, 2011). However, contradictory opinions regarding blended learning on the part of faculty members often existed within the same study (Kim & Bonk, 2006; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009). The expansion of this model of learning (as well as the speed with which all on-line learning is expected to grow) increased the need to understand this perceived dichotomy of opinion (Newman & Couturier, 2001; Peinovich, 2008). Given blended learning’s apparent success meeting learning goals (Green, Edwards, Wolodko, Stewart, Brooks, & Littledyke, 2010; Means, et al, 2010), this thesis may allow insight as to how self efficacy can be improved through blended learning (Castle & McGuire, 2010; Dede, 2007; 2011). Also, as stated earlier, self efficacy corresponded to general life purpose, which can be linked to student retention and success (DeWitz, Woolsey & Walsh, 2009), but also to a renewed sense of purpose, excitement and control among faculty (Coogan, 2009; Power & Gould-Morven, 2011).

If faculty are concerned about loss of control (Murphy & Rodriquez-Manzanares, 2009; Popov, 2009, the self efficacy issue they may be facing may not be their students’ self efficacy, but their own self efficacy in working in a new environment (Zhen, Garthwait, and Pratt, 2008). However, as Popov (2009) pointed out, this sense of control is important, as it affected the overall quality of instruction, and was not merely based on a concern about
devolving power (Murphy & Rodriguez-Manzanares, 2009). In blended environments, faculty can be deprived for long periods of time of traditional visual cues like body language and eye contact that let them know if a student was comprehending material presented (Murphy & Rodriguez-Manzanares, 2009). It was the dearth of direct studies devoted to faculty perception of student self efficacy which provided the rationale for this thesis.

**Section 3: Research Design**

The research design had three primary elements: study design, which is the study approach, the type of study conducted, the basic theory behind the approach being used, and why this approach was preferred. Research questions formed the crux of the study, and discuss what was hoped to be learned from the study. Finally, the methodology described the site and participants to be used, how data would be collected and analyzed, as well as discussing any concerns about protecting the validity and credibility of the study, and protection of human subjects (Fraenkel & Wallen, 2009).

**Study Design**

Faculty assessment of student self efficacy was based on faculty perceptions of student progress. Data gathered would invariably be colored by the faculty’s lens which actually should enrich the findings. Finally, responses would cover a range of reactions that affect the world of the faculty, given the changes in institutional approach, curricular emphasis, and even faculty to student relationships that blended learning means for higher education. Interpretative phenomenological analysis is a methodology that can gather and analyze emotional and subjective reactions for meaningful feedback (Reid, Larkin, & Flowers, 2005; Smith, Flowers, &
Larkin, 2009). Interpretative phenomenological analysis seemed particularly well suited to this approach, especially since continuing technological innovation points to increasing levels of disruption at the community college level (Eggers, 2012). The value of obtaining a qualitative assessment from faculty could assess the reasons faculty felt that students either were or were not increasing self efficacy as the result of blended learning.

A number of self efficacy assessments, (the College Self efficacy Inventory, the Scale of Perceived Social Self efficacy, and the General Self efficacy Subscale (GSE) of the Self efficacy Scale) have been used to judge how college students’ self efficacy perceptions affect college retention. (DeWitz, Woolsey, & Walsh, 2009; Schwarzer, & Jerusalem, 1995). Additional tools, such as the Motivated Strategies for Learning Questionnaire (Magno, 2011; Pintrich, Smith, Garcia, & McKeachie, from Mitiadou, 2000) and the Communities of Inquiry Survey (Aykol, Garrison, & Ozden, 2009) have been used in studies of whether online studies affect self efficacy (Mitiadou, 2000; Shea & Bidjerano, 2010). These surveys were reviewed for suitable points of analysis through which one can evaluate faculty responses. However, because of Bandura’s (2006) observation that the assessment of self efficacy is innately subjective, an interpretative phenomenological analysis (IPA) was deemed better suited to this research. Even the self efficacy scales studied were based, to a degree, on subjective assessments, so an interpretative phenomenological analysis provided some guidance as to why faculty members perceived any connection between blended learning and self efficacy (Fraenkel and Wallen, 2009; Yin, 2008).

IPA (Smith, Flowers, & Larkin, 2009) fit the question as to whether faculty members observed that blended learning improved student self efficacy. It avoided the larger issues about
the essence of experience that intrigued Husserl and Heidegger and instead limited the analysis to perceptions of a specific phenomenon within a group (Reid, Larkin, & Flower, 2005; Smith, Flowers, & Larkin, 2009). The choice of an interpretative phenomenological analysis as the study design allowed the faculty to readily examine their perceptions regarding whether and why or why not blended learning might affect student self-efficacy. Included in the study was a chance for faculty members to explore their own definitions of self-efficacy; currently the parameters of self-efficacy have been left open to circumstantial, somewhat subjective interpretation in the literature (Bandura, 1993; 2006). Learning how faculty members viewed self-efficacy was a valuable lens for the study.

**Site Selection**

The institution selected for research is a Massachusetts community college. Established in the mid-1960’s by the Massachusetts Board of Regional Community Colleges (Massachusetts Department of Higher Education, 2012), the college provides two year degrees, certificates, or transition to four year colleges for a poor region of the Commonwealth; one of the primary missions of this institution is to serve the cause of workforce development for their service area (Massachusetts Department of Higher Education, 2012).

The college has been accredited by NEASC (New England Association of Schools and Colleges) four times since its initial accreditation in 1970 (Massachusetts Department of Higher Education, 2012). The college has a main campus in a city environment with at least three extension campuses throughout its service area (Kumar, 2011).

Providing students associate’s degrees in more than one hundred academic subjects, the
college also offered certificate programs to assist working students, parents, and lifelong learners, and dual enrollment programs for high school students (Massachusetts Department of Higher Education, 2012).

The college is one of the largest higher educational institutions in the state, serves about 10,000 full time students, and has been helping 28,000 students attain degrees since 1968 (Massachusetts Community Colleges, 2012). The student body during the time of the study was 60.7% female and 39.3% male. The student demographic profile by race/ethnicity is 75.3% white/non-Hispanic; 8.8% unknown; 6.7% Black/non-Hispanic; 5.9% Hispanic; 2.2% Asian/Pacific Islander; and 0.9% American Indian/Alaskan Native (Kumar, 2011). The following are several recent relevant facts about the college:

- Tuition and fees at the school are typically $11,058 for in state students and $16,002 for out of state students to complete a two year program (Collegecalc, 2011).

- The average annual amount of student aid is $4,160 (Kumar, 2011) and about 40% of students receive student aid (Massachusetts Department of Higher Education, 2012).

- The top five (5) fields of study completed at the Community College are General Studies (40.1%); Criminal Justice/Law Enforcement Administration (16.5%); Liberal Arts and Sciences (15.8%); Business/Commerce (14.2%) and Criminal
Justice/Safety Studies (13.4%) (Kumar, 2011).

- Associate degree program applicants should have a high school diploma or equivalency; the Scholastic Aptitude Test is not required.

- Although individual programs can be competitive, transferring to the college only requires a completed application form and official transcripts (Kumar, 2012).

- The college’s Center for Workforce Development provides online and blended courses that enable students to learn at their own rate, at home or at work (Kumar, 2011).

- Online and blended programs and certificates offered include Accounting, Business Administration, Complementary Healthcare, Computer Information Systems, Office Administration, Medical Administrative Assistant, Legal Office Assistant, Multimedia Development, Office Technology Manager, Therapeutic Massage, and Phlebotomy (Kumar, 2011).

- The college offers at least 185 blended and on-line courses from remedial and credit recovery coursework to college level and professional development coursework (Massachusetts Department of Higher Education, 2012).

- The college collaborated with the Princeton Review for e-learning in health careers (Princeton Review, 2012) and the College used a guidance manual for its teachers for effective online and blended learning (Bellafiore, 2007). There is no
prescribed ratio of on-line to in-person time identified in the manual.

A survey of course work offered to registrants for the spring 2013 semester revealed

1. The college offered 63 separate disciplines of study

2. Thirty (47.6%) of these courses had blended sections.

3. Out of 1831 available course sections; 254 sections (13.8%) offered blended instruction (Massachusetts Department of Higher Education, 2012).

The communities served by this community college are among the poorest, least educated in the Commonwealth. Only 24.7% of the college’s home county population possessed bachelor’s degrees or higher, compared to 38.8% for the Commonwealth overall (Index Mundi, 2012). Unemployment rates in the county recently averaged around 12.3% compared with the rest of the state’s figure of 6.5% (Findthedata, 2012). Low educational attainment and high unemployment rates are concentrated in the county’s two largest cities (Massachusetts Department of Employment and Training, 2012).

Finally, the college has ranked in the thirty-seventh percentile out of all state two year colleges in three year college completion rates. Only fourteen percent (14%) of those who started college completed their degree three years after starting their studies (Complete College America, 2011). Although there was no stated connection between the college’s work in blended learning and its retention rate, the study’s emphasis on self efficacy could have examined whether student outcomes are affected by blended learning, but opted not to do so.
Participant Selection

For this research, the sample population of faculty was taken from the main campus of this community college and focused on faculty’s experience with blended learning courses—the design of the courses were not be a factor in selection as long as they met the definition of blended learning already provided (Watson, 2008, p. 6). The Dean of Online Education provided assistance with outreach to the faculty through email and other electronic requests for participation. The Institutional Review Board of the participating school meets eight times a year; the last two submission deadlines for 2013 prior to summer recess were April 11, 2013 and May 16, 2013. The IRB of the college under study (which will remain unnamed) reviewed plans for research by members of the institution and those associated with the College who were conducting human subject research according to the standards established by the Belmont Commission (U.S. Department of Health and Human Services, 2013). This study was submitted for review according to the participating college’s protocols. IRB applications were approved in May 2013 by both Northeastern University and the participating college. Northeastern renewed the IRB application in May 2014; the research had been completed by November of 2013 at the participating college so no IRB renewal was required from them.

Six (6) faculty members were recruited for the study. Individual faculty who participated taught different academic disciplines offered by the college and had at least two years’ experience teaching blended classes. Faculty chosen taught at least two blended learning courses over the past two (2) years. They also taught the same course(s) in a traditional format. The two year time frame and the minimum number of courses assured that the chosen faculty had recent and repeated experience with the blended learning educational format. The blended learning
course work taught could have been from any academic discipline, as the area of study was faculty perception of self efficacy, not course content mastery, or whether some coursework did or did not work better under a blended format (Xu & Jaggers, 2011). NOTE: One faculty member taught one blended class and several student option classes. Student Option classes, which are face to face classes converted to on line classes at the student’s request, fit the definition of blended learning provided in this thesis (Watson, 2008)

Questions

To examine the perceptions of faculty to be explored in this study, the following data and questions, based on the theories of Bandura (2011) were selected for faculty reflection:

Data about the interviewee’s experience

1. How many blended classes have you taught? On line classes? Traditional classes?
2. What do you teach?
3. How long have you been teaching?
4. Have you always taught at this college?

In-Depth Questions:

1. When did you begin teaching blended learning classes?
2. What is your definition of a blended class?
3. Identify what you consider advantages/disadvantages to blended learning as compared to face to face learning.
4. What do your students need to know and be able to do that is different between blended and face to face learning?
5. How do you think students perceive these differences?

6. Describe how your students spend their time on a class that is blended and a class that is face to face learning.

7. Describe any differences in the ways your students approach a class that is blended and a class that is face to face learning?

8. Have your students ever described differences between blended and face to face to you either during or at the conclusion of the class, and if so, what did they describe?

9. Describe how your students form learning groups in blended learning. Is there any difference between this process and how they form groups in face-to-face learning?

10. How do you think your students in blended learning fit into the college environment when compared to students in face to face classes?

11. Do students in blended classes seem to approach coursework with more self-assurance?
   a. engagement?
   b. and/or interest?

12. Do you think blended courses help students increase their motivation to succeed?

   How would you know this?

13. Do you think blended learning improved students’ ability to persevere? If so, how?

14. What is your definition of self efficacy?

15. Have you seen any changes in student self efficacy as a result of their participating in blended learning courses?

16. Do you continue to teach face to face classes?
17. Is there anything you would like to add that I did not ask?

Questions connected to the respondents’ background and the first and second questions in the main body of questions helped establish the extent to which these individuals have been involved with the teaching modalities under examination. Since there were many reactions and description of the content of blended learning (Auld, Blumberg, & Clayton, 2010; Kim & Bonk, 2006; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009; Power & Gould-Morven, 2011; Rovai & Jordan, 2004), a pivotal point of inquiry was how students and faculty actually experience blended learning and how they experienced the difference between blended and face to face classes. These topics were covered in questions 4 through 8.

Questions 9 to 13 referred to the respondents’ perception of whether students’ persistence, self-assurance, feeling of community integration in college, ability to form effective work groups, and self efficacy really does change as a result of the blended learning environment (Auld, Blumberg, & Clayton, 2010; Bandura, 1993; Blumberg, & Clayton, 2010; Dede, 2011; Green, Edwards, Wolodko, Stewart, Brooks, & Littledyke, 2010; Kim & Bonk, 2006; MacKenzie-Robb & Moss, 2008; Majer, 2009; Maltby & Mackie, 2009; Puzziferro, 2008; Rovai & Jordan, 2004; Vygotsky, 1978; Watson, 2008; Xu & Jaggars, 2011).

Given the range of discretion allowed in defining self efficacy (Bandura, 2011) it was prudent to ask the respondents what their definition of self efficacy learning was. Thus, question 14 tried to establish what the respondent’s definition of self efficacy was, while question 15 attempted to determine whether faculty members perceived any differences in self efficacy due to participation in blended learning (Albrecht, 2006; Beaudoin, 2007; Jaschik, 2006; Kim &

The last two questions were intended to 1) assess whether faculty members being surveyed were still part of the face to face teaching environment and 2) allow the faculty respondent room to provide additional comments that they did not consider or that were not covered in the preceding set of questions.

**Methodology/Trustworthiness of Study**

The demographic information gathered from the faculty participants’ college determined the environment in which faculty teach. This determined the ecosystem/phenomenal field (Bandura, 1993; Merleau-Ponty, 1958) gathering a richer analysis of faculty reaction and provide a context of faculty responses. Since the study dealt with one community college that had an array of postsecondary programs—from individual courses to certificates to degrees—data were gathered through individual interviews conducted in-person, to gather data on faculty’s perceptions of whether self efficacy is affected by blended learning. The questions examined whether faculty observations of blended learning courses reflected the four processes identified by Bandura (1993) as essential to self efficacy development.

The analysis is descriptive and qualitative, focusing on the ways in which faculty perceive that blended learning may help or hinder student self efficacy, providing a rich array of possible research directions from this analysis. The intent was to draw more depth about blended learning and the ways in which it appeared to work from the faculty perspective, allowing for deeper analysis of faculty perception.
Faculty were interviewed personally to gather their impressions of self efficacy among students in blended courses (Fraenkel & Wallen, 2009). Given the difficulty of defining self efficacy, and its differing interpretations (Bandura, 1993, 2011), faculty were also questioned to allow them to reflect on how they define self efficacy in order to provide a reflective environment for their own examination regarding whether blended learning affects self efficacy, providing a richer phenomenological field for exploration (Merleau-Ponty, 1958; Reid, Larkin, & Flower, 2005; Smith, Flowers, & Larkin, 2009).

Phenomenology, according to Creswell, embodied fundamental philosophical principles: 1) it marked a turn away from the scientism that had influenced philosophy and endeavors to return philosophy to its initial mission as a search for truth; 2) there was a suspension of judgment about what is real, until they are founded on a more certain basis, which he called the “epoche”; 3) there was intentionality of consciousness, or that the object being studied was always linked to the researcher’s perception of the object, meaning there was no subject-object duality (Creswell, Hanson, Clark & Morales, 2006).

Interpretative phenomenological analysis (IPA) has been rooted in the work of philosopher Edmund Husserl (1859-1938). Phenomenology, in its essential form, undertakes to expose more fully the human experience, including how human beings experience certain events (or phenomena), in their essential form, and the meaning humans ascribed to their experiences in the world (Smith, Flowers, & Larkin, 2009). There are a few major threads of phenomenological research in use today. Transcendental phenomenological analysis, advocated by Moustakas (1994) tried to view the phenomenon is a fresh state, detached from any preconceived notions the researcher may possess, but this state was seldom perfectly achieved (Moustakas, 1994; Smith,
Flowers, & Larkin, 2009). However, researchers attempted to find an objective state when they
start a project and “bracket out” their own experiences prior to viewing others experiences
(Smith and Osborn, 2008). Transcendental phenomenological analysis used several data analysis
procedures, which identify a phenomenon to study, bracketing out one’s experiences, and
collecting data from several individuals who have experienced the event (Creswell, Hanson,
Clark & Morales, 2006). From these parts, it sought a reductionist, interpretative, holistic
description of the event, also referred to as the “epoche” (Creswell, Hanson, Clark & Morales,
2006; Smith and Osborn, 2008). IPA uses hermeneutic analysis, which views the researcher’s
perception as an important aspect of understanding the phenomenon (Smith, Flowers and Larkin,
2009).

IPA was initially established in a paper published by Smith in 1996 in which he argued
for a better way to analyze psychological studies from the perspective of the subject (Smith,
Flowers and Larkin, 2009). The major use of IPA has been in psychological and medical studies,
but its perspective allowed it to be used in any field in which subjective, individual perception is
desired (Smith, Flowers & Larkin, 2009). The following is a brief breakdown of the tradition and
components from which IPA springs.

IPA rests on phenomenology, heuristics and idiography (Smith, Flowers and Larkin,
2009). Phenomenology involves understanding a phenomenon and how it can be explained from
the perspective of those experiencing the phenomenon (Reid, Flowers, & Larkin, 2005).

Heuristics are rules of interpretation, developed through an internal analysis and organization of
recurrent themes that the research exposes, so the analytical parameters are often defined by the
study (Forster, n.d.). Idiographic analysis emphasized individual reactions as reference points of
analysis, rather than looking for meaning in large groups (Smith, Flowers, & Larkin, 2009). Hermeneutic analysis organized data from the researcher’s perspective. It attempted to identify common themes which will allow the researcher a more in-depth understanding of the issue (Smith and Osborn, 2008). This will result in a new *epoche* or perspective on the item under research (Smith and Osborn, 2008). Hermeneutics can examine the experience of the experience and allow the viewer the luxury of knowing the observation may change over time, because the current larger world environment colors interpretation (Smith, Flowers, and Larkin, 2009). Also, since IPA is idiographic (individualized) as opposed to nomothetic, there is less emphasis on reducing perspectives to common themes than in Transcendental Phenomenological Analysis (Creswell, Hanson, Clark & Morales, 2006). Differences in interpretation are important to the inductive process of IPA as it considers any disagreements among respondents essential to a full understanding of how they experience the phenomenon (Creswell, Hanson, Clark, & Morales, 2006; Reid, Flowers, & Larkin, 2005). Hermeneutic phenomenology is not a series of steps or procedures, but is interplay among six research-based activities (Creswell, Hanson, Clark & Morales, 2006). This type of analysis is seen as an interpretative process in which the researcher mediates between different meanings of the experience (Creswell, Hanson, Clark & Morales, 2006), and the suspension of preconceived ideas and biases called “bracketing” and producing an *epoche* (Creswell, Hanson, Clark & Morales, 2006), is not considered essential as it is transcendental phenomenological analysis.

Although IPA is part of the hermeneutical phenomenological tradition and not the transcendental tradition favored by Moustakas (Creswell, Hanson, Clark & Morales, 2006: Moustakas, 1994), Moustakas’ methodology has been used in IPA/hermeneutical studies because
the steps in the process are very well-defined, systematic and do not prevent the researcher from analyzing the results using a hermeneutic perspective. The idiographic, emic perspective of IPA can still be maintained while using Moustakas’ methodology (Moustakas, 1994), as long as the researcher’s interpretation, critical to IPA, can be maintained, or reintroduced, within this experimental framework. Creswell notes that Moustakas’ systematic analysis made it easy to use by the researcher, and this approach has been used in educational and medical research (Cooper, Fleischer, and Cotton, 2012; Creswell, Hanson, Clark & Morales, 2006).

The methodology used for this study therefore followed commonly used IPA standards (Reid, Flowers, & Larkin, 2005). IPA does not require large numbers to provide more valuable results (Reid, Flowers & Larkin, 2005). Typically, ten participants are often considered to be the high end of most samples (Reid, Flowers & Larkin, 2005). The sample population chosen for this study was six (6) faculty members.

A structured interview (Smith & Osborn, 2008), lasting about one hour was the initial data gathering tool, using the questions developed for this study. Interviews were digitally recorded and transcribed for analysis. There was the potential for interviews to provide inconsistent responses (Brocki & Wearden, 2006). A consistent approach in interviewing and careful transcriptions ensured that the interviews captured the details accurately. After the interviews had been transcribed, the respondents were asked to review the transcriptions and add comments or clarifications to ensure that the results that were captured in the transcriptions are accurate and what the respondents intended (Brocki & Wearden, 2006; Reid, Smith, & Larkin, 2005). Only one correction was received by the researcher; this was integrated into the transcriptions that are included in the Appendices to this study.
The steps in the process were:

1) Identified faculty with the help of the Dean of Online Education (who oversees blended learning) at the selected college.

2) Scheduled and organized interviews

3) Bracketed researcher bias prior to conducting interviews

4) Conducted semi-structured interviews—the preferred methodology of IPA (Smith and Osborn, 2006)

5) Summarized each interview, and have the participants review the interviews for accuracy.

6) Corrected the transcripts based on feedback from interviewees.

7) Catalogued interviews through analysis of response by organizing interview responses into major categories and organize answers according to frequency of response in order to find commonalities among respondents.

8) Interpreted for meaning and organize into findings

Analysis of the data consisted of delineating units of meaning and clustering for themes and extracting general and unique themes from all the interviews and making a preliminary composite. The common elements from the analysis were entered into a data response table then researcher bias and analysis of idiographic observations and interview inconsistencies were undertaken. This reintroduced the interpretative and idiographic emphasis of IPA (Creswell, et al. 2006; Fraenkel and Wallen, 2009).
The data was organized into groups of themes for convenience (Forster, n.d.; Smith, Flowers, & Larkin, 2009). This part of the process involved yet another review of the recorded interview and notes taken. By reviewing the results of this stage, the various clusters were organized into central themes that express the meaning of the clusters. The results were be coded by major themes; the selection of themes was developed by the researcher according to a contemplative analysis of the responses (Smith & Osborn, 2006). Outlying voices were analyzed as contrast to common responses. At this point a composite summary was developed reflecting the perspective from which the themes developed, and the findings were analyzed and summarized. Implications, further areas of research suggested, and a conclusion were provided (Smith, Flowers, & Larkin, 2009; Smith & Osborn, 2006).

**Protection of Human Subjects**

Protection of research participants was a central concern of this study. The researcher presented the proposed research to the Institutional Review Boards of the institution where the research took place and to Northeastern University. Faculty participants were provided an informed consent form, written in such a way that was clear to the participant. The researcher developed this form. Appropriate staff and faculty representatives from Northeastern and the participating college reviewed the form. The study’s purpose and consent form was presented to and explained to potential participants in personal discussion. No participant’s name was used in the thesis and transcribed interviews did not use names to identify faculty participants. The researcher has sole access to any information that identified the faculty participants, and this has been stored on a computer with password protection.
Interviews were digitally recorded on portable digital recording devices or directly onto the password protected computer, which has a built in recording device. Interviews recorded on the portable digital recording device were transferred to an audio file on the password protected computer immediately after the interview. Data will be erased from the recording device when the thesis is accepted and published. Transcripts of interviews were maintained on a computer with password protection, and any hard copies developed (including researcher notes from interviews) have been maintained in a locked cabinet inaccessible to anyone but the researcher in a secure location in the researcher’s home. These hard copies will be shredded and destroyed once the study has been published as a thesis. All stored and original recordings will be deleted and/or erased when the research thesis is completed.

Several ethical concerns arise from research that includes human participants. The researcher ensured that the research study’s design benefits both researcher and participants. The researcher informed the participants of the purpose of the study and protected the identity of the participants in the study (Belmont Study, 1979; Creswell, 2012). There was an additional concern in this study. The study should also benefit the participants in some way.

The researcher is a supervisor in a state government office that provides funding to the community colleges across the Commonwealth of Massachusetts. There may have been a concern that faculty reaction might adversely affect the relations and possibly, the funding the institution might receive in the future, or that the faculty interview results might be transmitted to deans or administrators of the college. The researcher communicated the purpose of the research to potential participants and those who have volunteered to take part; made anonymous all contributions in transcripts; and did not communicate any of the content to any person not
directly involved in the study, including the administrators or dean of the colleges, until the study has been completed and written. All sources that could identify the college have been suppressed in the final publication, and the college was never identified. The researcher will offer to present the findings of the research to the faculty participants in a live session for those still at the college, or by electronic means for those who have left. The study may benefit them by allowing them to see other non-identified faculty’s reaction to whether blended learning increases self efficacy. Although the researcher works for an agency that distributes funds to community colleges, this organization does not have general administrative oversight over community colleges and has no input into faculty hiring, dismissal, or evaluations (Gomes, 2013).

Section 4: Findings and Analysis

Restatement of the Thesis Question

The primary question posited by this thesis was: In which ways do faculty members believe or not believe that blended learning can enhance community college student self efficacy?

Findings summarized

The primary finding of the study was that there was too wide a range of variables that affected self efficacy in blended learning for interviewees to assess whether blended learning enhanced self efficacy. Further, there was even considerable uncertainty about the definitions of self efficacy and blended learning. However, the respondents did provide a rich amount of detail about their perceptions of how students behaved in a blended environment and how this behavior might affect student self efficacy.
Faculty responses about student interaction with blended learning were classified into three broad categories: student preparedness for blended learning; teacher support for and involvement in the blended class; and student engagement in blended learning. All findings appear to be subsets of these major categories. Some faculty members were favorably disposed towards blended learning and others were not. This perception filter will be discussed because it seemed to affect the responses of faculty. Also, faculty observed that students in vocational courses required for their field of occupational training showed more engagement in their coursework than students in non-vocational courses required for degree completion.

**General Characteristics of the Study’s Participants**

Interviewees were given pseudonyms to preserve anonymity.

The Early Education and Child Care Professor (referred to as Early Education) has been teaching for nine years. She has taught blended learning classes since 2010, and has taught at two colleges.

The Massage Therapy Professor (referred to as Massage) taught in the school’s health science division, and also taught a variety of health science courses such as muscular skeletal anatomy and physiology, pathophysiology, and kinesiology. This faculty member has taught for nineteen (19) years and taught more than thirty (30) blended courses, between fifteen to twenty (15-20) exclusively online courses, and thirty (30) to thirty-five (35) face to face classes. This professor recently received an award for blended learning design at a regional conference, and has teaching experience at two colleges.
The History and Social Studies Professor (referred to as History) had the most extensive teaching experience of any interviewee, teaching thirty-five (35) years in total and twenty-five (25) years at the institution in which the survey occurred. This individual has taught blended courses for seven years, teaching ten (10) courses per semester, or seventy (70) blended courses in total, and has also had online teaching experience of twenty (20) years, teaching about one hundred and twenty-five (125) online courses and an undisclosed number of face to face courses in a wide variety of social sciences. However, the courses this individual teaches were not vocationally oriented, and were either part of the core mix of required courses that students must take to complete a degree, or elective courses.

The Computer Information System professor (referred to as CIS) teaches “occupational” or “vocational” courses. Students who took these courses did so because it is their major area of study. This faculty member has taught for twenty-eight (28) years, and has taught at only one college. This individual has been teaching in the online college for at least ten (10) years, (40 - 60 classes over a ten year period) but only taught one blended learning class. This professor also teaches a “student option” class, in which students can start to take the classes online and finish in a face to face format or, more often, the other way around. Students can exercise a “student option” class depending on the student’s circumstances (family and work circumstances making the original educational arrangement unviable) and how the students have performed up to that date. This was not a standard option for all classes taught, but was offered for a Windows server administration class and an operating systems scripting class. This individual described her blended learning experience as being a disappointing experience for the students and her.
The Communications professor (referred to as Communications) taught Fundamentals of Public Speaking; Intercultural Communication; Interpersonal Communication; and Human Communication, and has taught between twelve (12) and fifteen (15) blended courses, no online courses, and about seventy-two (72) face to face classes. This professor taught at two colleges for about thirteen (13) years, and started teaching blended classes about seven (7) years ago,

The Phlebotomy Professor (referred to as Phlebotomy) has taught eleven (11) blended courses, and teaches no courses exclusively on-line. This professor taught about eighteen (18) face to face classes, including Introduction to Laboratory Science; Principles of Phlebotomy; Immunology; Hematology, Clinical Biochemistry, and Urinalysis. She has taught five and a half (5 ½) years and also taught at a medical facility, unofficially, prior to working at this college. Her experience with blended courses started in 2011 when the college developed the online program.

Table 1

<table>
<thead>
<tr>
<th>Faculty Identifier</th>
<th>Subjects Taught</th>
<th>Years Teaching</th>
<th>Years Teaching</th>
<th>Voc/Req. Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>


<table>
<thead>
<tr>
<th>Courses</th>
<th>Professor</th>
<th>Years</th>
<th>Blended Learning</th>
<th>Course Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Education and Care Related Courses</td>
<td>Professor</td>
<td>7 years</td>
<td>3 years/ 7 courses</td>
<td>Vocational Course</td>
</tr>
<tr>
<td>Massage Physical Therapy, Muscular Therapy Skeletal Anatomy and</td>
<td>Professor Physiology, Pathophysiology, and Kinesiology</td>
<td>19 years</td>
<td>Five and a half years/30 courses</td>
<td>Vocational Course</td>
</tr>
<tr>
<td>Computer Information Systems Windows Server Administration Scripting Class; Operating Systems</td>
<td>Professor</td>
<td>28 years</td>
<td>10 years/1 blended course; teaching student option courses (# unknown)</td>
<td>Vocational Course</td>
</tr>
<tr>
<td>History American History to 1877; American History from 1877;</td>
<td>Professor</td>
<td>35 years</td>
<td>10 years/70 “Required” blended non-</td>
<td></td>
</tr>
</tbody>
</table>
American History through the Movies; Immigration and Ethnicity; the 1960’s; Modern East Asia with a Focus on China and Japan; Traditional East Asia, with a focus on China and Japan; American Foreign Policy in the 20th Century; American Social History in the 20th Century, etc.

Communications Professor
Fundamentals of Public Speaking; Intercultural Communication; Interpersonal Communication; Human Communication
13 years 12-15 "Required"

Phlebotomy Professor
Laboratory Science; Principles of Phlebotomy; Immunology; Hematology; Clinical Biochemistry Laboratory Science; Principles of Phlebotomy; Immunology; Hematology; Clinical Biochemistry; Urinalysis
5.5 years 3 years/11 Vocational courses course
Notes: Vocational/required courses based on faculty responses.

Development of Themes

In order to develop some method of organizing data based on the interviews, the data was organized into super-ordinate and nested themes. The super-ordinate themes and their nested themes were: 1) Student Preparedness for Blended Learning (1.1 Lack of Exposure, 1.2 Lack of “professional” use of computers, 1.3 Student expectations of course difficulty); 2) Students’ Need for Direction (2.1 Students not confident learners; 2.2 Students preferred face to face learning, 2.2 Students’ desire for Faculty interaction); and 3) Professors’ hesitancy to define blended learning or self efficacy (3.1 Professor felt some students showed self efficacy, 3.2 Professors felt the lines between blended and face to face are blurring, 3.3 Professors felt vocational versus “required” course affected student interest/involvement, 3.4 Professors felt faculty were essential to student success. Super-ordinate themes and nested themes were identified as those recurring in at least four of the six participants’ interview data. Table 2 provides a listing of the super-ordinate and nested themes that manifested through the analysis process, as well as the recurrence of each theme across participants.

<table>
<thead>
<tr>
<th>Super-Ordinate Themes</th>
<th>Early Ed</th>
<th>Massage</th>
<th>History</th>
<th>CIS</th>
<th>Comm</th>
<th>Phlebotomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nesting Themes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Students Not Prepared for Blended Learning</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
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<td>--------------------------------</td>
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<td>-----</td>
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</tr>
<tr>
<td><strong>1.1 Lack of Exposure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1.2 Lack of “professional” use of computer skills</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>1.3 Student expectations of course difficulty did not match reality</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>2) Students needed direction</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>2.1 Students not confident learners</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>2.2 Students preferred face to face to blended learning</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>2.3 Students desired Faculty interaction</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>3) Professors hesitant to define blended learning and self efficacy</strong></td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td><strong>3.1 Professors thought some students showed self efficacy</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td><strong>3.2 Professors thought lines between blended and face to face</strong></td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>
As can be seen from the chart, despite some differences in attitudes towards blended learning and whether students developed any self efficacy in blended classes, most responses were consistent.

**Major Findings**

1) **Student Preparedness for Blended Learning**

1.1 **Students’ Lack of Exposure to Blended Learning**

The professors interviewed universally perceived a lack of student preparedness for blended learning. Students’ technological preparedness was a commonly cited issue of concern. Professors noted that students have familiarity with certain forms of technology such as texting but lacked more academically relevant skills, such as accessing certain parts of websites, putting attachments on emails, or accessing online materials. For instance, the Phlebotomy Professor, History Professor, and Early Education Professor all expressed very similar views regarding the ability of students to command the finer points of the technology of blended learning:

Faculty: Some students are fine. Because as you know, nowadays there is technology in every pocket with cell phone and lot of students handle that really well. Surprisingly, I
get a lot of students in here who have never used a computer more than what they do plunking on the keyboards in the library. And I find that surprising because they have signed up for an online, hybrid course, and they have never checked emails. They don’t know how to open a PDF file. I think this is my sixth e-health hybrid course cycle that has started and every year I get more and more. I had two this year who didn’t know how to use a computer. It’s shocking (Phlebotomy, July 2013)

I can go back a little bit. What do I think they (students) need to know? Well, first of all, they need to be able to use technology professionally. They can all text with these magical thumbs like God made little green apples. But they need to know how to use technology professionally. They all think because I’m a little long in tooth and grey in hair, I couldn’t possibly know more about technology than they do. I think that’s why I work to break the ice on that right away, you know, there are ways of using technology that have nothing to do with texting your friends, and you need to be socially erudite online. You need to understand that in a professional way, when you answer a question in a blended assignment, you answer in good English; you don’t text it to me unless I have asked you to. I have used tweets, and have allowed them to be as creative as they have wanted to be, but make sure the English is proper (History, 2013).

They need to be able to access the information, to know how to use the technology that is out there. It’d be lovely if they knew how to do an attachment (laughter)...how to do just different things with the technology. Also how to navigate the course space itself, know where to find things, where to post things, if something is not working right to get in
touch with me right away. They need to be able to manage their time would be nice too and not wait until the last minute when technology always fails in the last three minutes before the thing closes (Early Education, July 2013).

1.2) Lack of Exposure

Faculty held the opinion that students in the geographical area where the college is located were underexposed to the type of technological training necessary for success in the online component of a blended learning environment. The faculty observed that students experienced frustration in having to wait for answers or did not feel confident enough to ask questions through emails. Additionally, faculty felt students underestimated the technical skills and work required to succeed in blended learning.

Faculty: Yes, they don’t want to impinge on that. And especially students who have taken online classes from different faculty. That’s another big one. In this class, I did so much in the class; in other classes the professors were hardly ever present in the online environment. Listening to students’ talk about that has given me tons of feedback on how to progress. Typically, they are frustrated they are not being responded to in a timely manner. We give them a week’s time to submit things: there is typically a deadline. If all the students aren’t engaged, it is hard to participate in something that requires group work if not everybody’s there. Typically I hear a lot of frustration with other students in the class, frustration with the group work, frustrations with the faculty not answering an email waiting 3 or 4 or 5 days to get a response to an email. They now have gotten so
frustrated that the assignment is not done. Some are what I call logistics that I think should be able to be fixed (Massage, July 2013).

Faculty: Well, the first largest component is being able to use the technology. That seems to be the biggest challenge because a lot of students come into a blended classroom with limited computer skills to begin with and are then asked to get onto the internet, then get into a course space, then begin to manage the course space, and manage to know where they are, what they have to do and know how to work things, and some of the technologies that are within the course space are things that they have never had experience with (Phlebotomy, July 2013).

Faculty: For some of them I think they don’t realize the amount of skill they need to have to operate the systems we are asking them to operate. I think the population of students that I work with in particular, don’t tend to have technology skills in general, so it becomes very challenging for them. I think some of the students perceive the difference between the two courses as being more convenient in terms of the timing for them, and that’s why we offer them, in terms of that convenience, and for those students, they take it for the convenience whether they have the skills or they don’t have the skills. We find that out and try to support them as best we can (Early Education, July 2013).

1.3) Student Perception of Ease of Blended Learning

Faculty members felt that students needed better socialization to the online component of blended learning, which was a more “active” and difficult learning style. Many students had no exposure to this kind of learning environment in their earlier education and were used to a more
passive learning style, which History Professor dubbed “trash can” learning, in which the teacher deposits knowledge in the student as one would deposit items in a trash can (History, 2013). Interviewees observed that student learners had to work harder in a blended learning course than in a face to face course, mainly because the burden was on the students to follow-up and be proactive in presenting coursework to teachers, whereas in a face to face environment teachers would always be there to remind students when assignments were due. These observations reinforced the opinion that students needed more acculturation to blended learning, and that some students had underestimated the difficulty of blended learning classes. The observation that students needed better training both technologically and socially to succeed in a blended learning environment seemed to indicate 1) concern on the part of faculty members that students are taking such coursework because students might think blended learning is easier than face to face learning and 2) that faculty think students are not sufficiently motivated to succeed in this coursework without the guidance of teachers. The Communications Professor, Early Education Professor, and History Professor all expressed the opinion that students had to adopt new ways of managing learning in a blended environment (Communications, June 10, 2013; Early Education, 2013; History, 2013).

Communications Teacher: Faculty: What they really need to learn about is the time management piece because sometimes it is not so much the content but managing how they do things. But they also need to know how take responsibility for learning. What I mean by that it is one thing to watch a power point or to watch a video and say I did it it’s done and it’s another thing to watch the power point or video and apply it to…what they need to be learning and sometimes that takes a bit of time, especially for the new online
one, although the History and Early Education Teacher viewed students developing new
skills as a positive result of blended learning.

Interviewer: How do you think students perceive these differences between what they
have to do between blended and face to face?

Faculty: I have a good five years’ experience teaching online learning and blended
learning. I am still hearing a strong sense of students saying I just want to come to class; I
just want to come face-to-face and be in the classroom. I don’t think students yet— I
think it is coming- I don’t think they truly yet understand how the pedagogy can work in
this type of environment. When they finish the program they a little bit of better sense of
that, but certainly starting out, they just want to come in; they want to be face to face they
want to see me face so that the transitions I think, is still a barrier (Communications,
2013).

Faculty: The disadvantages I think of a blended class is that they have a tendency, if it is
a true blended class, when I am really relying on them to go online and do things on their
own some of the students don’t necessarily go online and do the things that they’re
supposed to do, and it is a bit more of an independent class I think when it’s a blended
half and half model, and some students just don’t do well with that. They need someone
constantly reminding them and constantly right there, face to face keeping them
accountable. Whereas, emails and things like that, they can easily ignore me (Early
Education, June 2013).
Faculty: I think the advantage to blended learning in relation to a face to face class is, that in a traditional face to face class, the students become what I call, “trash can” students. That is we step on their toes, we open their heads, put the knowledge in and it comes out their fingers. That is, there is no active engagement on the part of the students. I think the benefit of a blended class is that it requires them to be actively engaged in the course material.

Interviewer: So by trash can, you mean passive?

Faculty: Yes! Because I have had some student say they like the face to face better, and I say to them, no, you like it because you don’t have to take charge of your own learning. In an online space in a blended space, they have to take charge of their learning, which they don’t like to do (History, 2013).

Faculty deemed preparedness of the blended learner for blended learning classes a major challenge to students’ success in blended learning.

2) Students’ Need for Direction

Another key set of findings involved the level of learner confidence felt among blended learners and the perceived need for teacher direction, support, and approval.

2.1 Students not confident learners

According to faculty respondents, students did not prefer blended courses and would not take them again because of the work the students encountered in fulfilling course requirements. The interviewees felt students took blended courses solely because the coursework fit into their
schedule conveniently, and, as mentioned earlier, students may have believed the coursework was easier. Faculty respondents also noted that homework was often not turned in on time or submitted at all in blended learning classes. The Phlebotomy, History and Communications Professors stated that no students appeared to be confident learners when they started out in blended learning.

Phlebotomy: Faculty: No, I think they’re more intimidated by the online…yeah, I haven’t gotten the confident learner yet. This is still a community college. Blended learning…I still have to explain the difference between hybrid, blended, web-enhanced online learning. Students do not get it. They think online is easier; they think it’s quicker. The perception is still not understood, at least at this college (Phlebotomy, July 2013).

One of the disadvantages is with very shy people who have not developed the skills to be active learners themselves. Sometimes blended learning does not give them enough direction to take charge of their own learning. Do you understand what I am saying about that? Sometimes they will withdraw from a blended assignment. They may not believe they have the tools to do well.

Interviewer: So, to paraphrase, they may not have the initiative, or they may not have learned to take the initiative…

Faculty: (about 3 or 4 words indecipherable because of recording). Exactly…not being socialized enough, not feeling self confident enough to take on a blended assignment (History, July 2013).
Interviewer: So, it strikes me, and forgive me if I am being too presumptive, it sounds like you have to have a certain amount of self discipline or executive skills and that comes from some kind of…

Faculty: Well, some students are not disciplined and have to be disciplined to finish their coursework… Some students are not disciplined and that’s one reason I stopped offering some of my intro courses that I used to offer as student option format as students would learn all the coursework in the student option format, and then stop coming—they thought it gave them license to stop coming. So I stopped offering that format—you either opt to take it online upfront or you opt to take it face to face (CIS, July, 2013).

Faculty: I-you know, probably managing the technology can cause frustration for students. They want to submit something, they want to do something, they are navigating their way around, they get lost and they need help. Then you get the frustrated student now shuts off the computer because they couldn’t do it. And now they need extra help in do it. They perceive the face to face as I only have to give this amount of time and do my homework, so maybe they perceive it (blended) as more work (Massage, July 2013).

2.2) Students Do Not Like Blended Learning and Prefer Face to Face

Several faculty interviewed noted that that students did not like blended courses and wanted more structure or needed reminders to submit assignments in blended learning. This reinforced the observation that students were not adequately prepared, socially or technologically, to take part effectively in blended learning.
Faculty: For some of them I think they don’t realize the amount of skill they need to have to operate the systems we are asking them to operate. I think the population of students that I work with in particular, don’t tend to have technology skills in general, so it becomes very challenging for them. I think some of the students perceive the difference between the two courses as being more convenient in terms of the timing for them, and that’s why we offer them, in terms of that convenience, and for those students, they take it for the convenience whether they have the skills or they don’t have the skills. We find that out and try to support them as best we can. (Early Education, July 2013)

Faculty: I think that in regards to students, especially today with student moms and jobs, obviously it is the ability to complete a degree without having to commit to specific hours of the day. So it gives them the flexibility to complete their coursework in the middle of the night if they so choose, based on their family and job needs (CIS, July 2013).

Faculty: It would be a little hard for me to gauge, but I would estimate that less than 25% of my students actually like the hybrid course, and those are usually the ones who usually email me. And the rest are not that engaged or never email me. And there are those students who say they never realized they were in a hybrid course and I’m going to stick it out, but I am not sure this is for me.

One of the observations shared with the researcher was that students had previously been used to relying on people in the schools to give them encouragement, to build their self esteem “…so there’s kind of a disadvantage to those students because they are coming in not knowing…they don’t have a sense of who they are, of what they are capable of, like
whether they are good with math or had barriers. And some of the students who were on IEP’s (Individual Educational Plans for students with special learning needs) in school may have doubts about their abilities…” (Communications, 2013).

2. 3) Students Desire Faculty Interaction

Several faculty respondents noted that that students wanted more structure or needed reminders to submit assignments in blended learning.

The Massage Therapy, History and Communications Professors felt their particular students responded well to them in their classes because of the particular way in which individual faculty designed and delivered blended learning to the student, feeling that some faculty members did a better job of preparing blended learning classes than other faculty did (Communications, 2013).

Faculty: Yeah, in a way, when you think about it, they do get that ability. Especially if they are in a class with a really encouraging facilitator, faculty or professor that makes them feel what they have to say is worth, that you’re appreciative of it. You build them that way you know what I mean versus just the concrete “Yes”, “No” that’s not the answer, black and white answers.

Faculty: I—you know, probably managing the technology can cause frustration for students. They want to submit something, they want to do something, they are navigating their way around, they get lost and they need help. Then you get the frustrated student now shuts off the computer because they couldn’t do it. And
now they need extra help in do it. They perceive the face to face as I only have to give this amount of time and do my homework, so maybe they perceive it (blended) as more work (Massage, 2013).

So as a teacher, I think that way, that if we can strike that spark of motivation, it’s going to grow, but I’m not sure. I think the blended classroom might help because …. Okay, you asked me a way back for the definition. I see the blended classroom as a shared journey, with me as the guide on the side and the student doing the work. So, because I’m more integrated into how the material is understood, I think that they get more of a motivation from the fact that I have to be engaged in a blended classroom. That’s the one thing you have not asked me and I think that is what makes the difference—the instructor has to be engaged in the blended classroom (History, 2013).

The reason they are successful in my course is because I lay it all out for them and guide them along the way, so they always know what they need to do and everything is at their disposal, and sometimes I get students comparing me to other courses and saying the other course I had was nothing like this; I had very little contact with the teacher and very little guidance, and very little description or guidance or telling me what to do. So they tend to appreciate the more information the professor puts on the course space and more guidance and having more direction rather than try to figure out, gee, what am I supposed to do with this? (Communications, 2013)
3. Faculty Hesitant to Define Self Efficacy/Blended Learning: Improvement in Self Efficacy.

3.1) Differing Interpretations of Blended Learning

Faculty interviewees diverged in their definition of blended learning. Three respondents viewed blended learning as having a fixed time frame for its components and appeared to conceive an overall design of blended learning. Two of these three agreed on specific time mix of online and face to face (50% online and 50% face to face), while one chose a different ratio (67% online; 33% face to face), one faculty participant deferred to the interviewer’s definition, and one declined to offer any definition. All but one of the respondents noted the increasing reliance on online resources in class instruction, even for face to face classes. At least three faculty members wondered aloud whether this increased reliance on on-line augmentation of face to face coursework might constitute blended learning. For some interviewees, the distinction between blended learning and face to face learning environments seems to be starting to blur.

Faculty: The only thing is, I think my definition of blended may not exactly fit your large definition of blended of 30 to 70 percent. I have one class that is a hybrid, but my other classes are totally online or face to face and are supplemented by videos and online. It is supplemented by videos but there are other things there, but I don’t list them as a hybrid class. So I don’t know if I meet your criteria for what it is you want.

Interviewer: Well, I think they could, because if we go back to the Sloan Consortium, it is 30 to 70 percent, of the instruction is provided online; I don’t recall the definition saying exclusively online, so how that is determined may be open to interpretation. I may go back to my adviser and get her interpretation of this for this study.
Faculty: OK, so basically, I have a hybrid, I teach it; I meet with group once a month. In my face to face, all the assignments have to be submitted online, but they have access to all the journals, they have access to…it’s all online, I get the feedback and they take the tests online, but I don’t provide the instruction online.

Interviewer: And I think the bottom line is instruction, so (garbled)...but do you consider it to be a blended class?

Faculty: I never used to do it. I only recently started adding that capability; it was there for years before I started. But when I was teaching blended and face to face, I thought I could keep my notes online and my paper and it was so much easier to have one place to access everything from; and if a student lost a paper, I could tell them they could access it online, not to worry. For me it’s a place where they have resources. And the online grading was easier…that was a big selling point! (Early Education, 2013)

Faculty: Umm, I do. But pretty much we are almost a complete hybrid. We still do some traditional classes but they are totally web-enhanced; I’m not sure you could call them a face to face anymore. If you are so enhanced that you really are functioning as a hybrid at that point I think. I mean a few enhancements is one thing, but if the entire course is enhanced and anything they do face to face is on the computer, then I start to wonder if that should really be called a hybrid course.

Faculty: Uhhh, well one thing I am doing now is that I am using an online component even with my face to face classes, so in a sense, even though they are not designated as a hybrid class and they are still meeting with me face to face, I still expect them to use the
technology outside of the classroom to get assignments and do assignments and also to get a quick classroom concept in which they watch instructional videos on line to prepare for classroom activities. It seems to work well for students but again, if students aren’t doing the work outside of the classroom, or doing the reading assignments are coming to class completely unprepared, which was typical even before I started doing blended because I required them to review the materials before they came to class and be prepared to discuss the concepts they read about. If you haven’t read about it, you can’t participate. I really don’t see a difference. The issue is: Are students engaged and willing to take the time to prepare outside of the classroom prior to class? (Communications, 2013)

3.2) Faculty Thought Some Students Showed Some Signs of Self Efficacy

Faculty who taught vocational courses noticed blended students seemed better prepared for the in field classes than students who were at comparable stages of the coursework but were taking face to face classes. One faculty member felt this was because of repeated exposure to the material; others felt this comparatively high level of preparation was fueled by the desire to see theory (the online component of the course) exercised in practice (face to face) and the student wanted to be ready for the face to face class (History, 2013; Phlebotomy, 2013; Massage, 2013).

Faculty: You know, I think they are better prepared to do certain things than most students. We have had some of our students do well and actually get admitted into the nursing program and do quite well in it, because those that succeed in that blended environment, not only do they get the extra practice and assignments I have added, they are able to self-motivate and they are able to overcome any kind of obstacle and willing
to put the extra time into it. I notice too that the students who do these blended courses do things at night. The older the student is the more dedicated they are and the more likely they are to submit things online. (Phlebotomy, 2013)

Interviewer: Do you think blended courses motivate students to succeed?

Faculty: I think they do…especially when they do assignments and tests and get feedback in a fairly quick manner. In most of my classes they do. That’s one of the reasons I started doing blended so I could provide feedback as it helps in lesson planning because I can look at their work and in lesson planning I can look over the work and review what was good about the first lesson they did, their strengths and what they needed to improve upon. Lots of times students will submit things early to me—I’ll look at them if I have time—and say you need to do this, this, and that. And lots of times this will help them feel better about themselves and their assignment and activity is that much better the next time (Early Education, 2013).

Faculty: The advantages are definitely that students get ahead of the learning curve because they have more time to prepare for what I call active learning in the face to face environment, so when they are asked to learn something in the face to face environment they are hearing it for the second to third time versus now as opposed to hearing it for the first time so the real application of the online content and all the stuff that involved in online learning gets put into real life play and I truly believe that is an advantage.

Interviewer: I understand. Could you describe how your students spend their time on a class that is blended and on a class that is face to face?
Faculty: (Pause). I really don’t know. It will depend on the student. Some students will put a lot of time and effort, and I can tell they have spent a fair amount of time doing the readings and doing the assignments and answering all the questions they are supposed to answer. They have a review sheet that they are supposed to submit. And other students that don’t do those assignments—it’s hard to tell: are they doing the assignments, are they doing the readings, are they watching the instructional videos, are they using any of the learning tools? It’s hard to gauge unless they are submitting the assignments.

Interviewer: I understand. Could you describe any difference in the ways in which your students approach a class that is blended learning versus a class that is face to face learning?

Faculty: Uhhh, well one thing I am doing now is that I am using an online component even with my face to face classes, so in a sense, even though they are not designated as a hybrid class and they are still meeting with me face to face, I still expect them to use the technology outside of the classroom to get assignments and do assignments and also to get a quick classroom concept in which they watch instructional videos on line to prepare for classroom activities. It seems to work well for students but again, if students aren’t doing the work outside of the classroom, or doing the reading assignments are coming to class completely unprepared, which was typical even before I started doing blended because I required them to review the materials before they came to class and be prepared to discuss the concepts they read about. If you haven’t read about it, you can’t participate.
I really don’t see a difference. The issue is: Are students engaged and willing to take the time to prepare outside of the classroom prior to class (Communications, 2013)?

Faculty members also saw different levels of student commitment, but those who taught non-vocational courses felt they needed to take extraordinary measures to encourage student participation. Several respondents emphasized content and curriculum as more important than the learning delivery mechanism; another interviewee emphasized the need to make course content more interesting and engaging; and student commitment to the coursework was also an essential factor for student success.

Faculty: Again, I don’t know if it is the influence of the kind of course that is taught. One part of a public speaking course is developing confidence in the belief that you can do it.

Interviewer: So it’s difficult to separate the content from the medium?

Faculty: It is. Content is what’s teaching these students to think positively. There are parts in public speaking in which we talk about fear in general and the things that make us fearful and hold us back from achieving certain things and maybe the students have had bad experiences and we can figure out ways in which we can overcome these. It’s hard to say that there is a difference between blended learning and face to face that makes a difference (Communications, 2013).

Faculty: I will give you a military example: after they get through the wetting down period and what is expected of them, I am thinking my job is the same as it is with online; I’m a cheerleader about the first two weeks. “That’s great what you’re doing. You’re
really getting the hang of it.” And they expect, they begin to know what I expect from
them. And I think by mid-semester, my answer would be “yes”—they begin to exhibit
more self confidence in being able to find the answer on their own.

Interviewer: Do they show more engagement, do you think? You touched on this earlier.

Faculty: Yes. Well I think the ones that stay do. One of the problems with a community
college is that retention is not what it should be. But I find those who stay in both the
blended and online (and I know I am not supposed to talk about it), the ones that hang in
there are really engaged in what they are doing, even those who quote “hate history” even
as most of them say in the beginning. (History, 2013)

Faculty: So, for example, teaching the same Intro class I have now, the face to face, we
have the traditional lectures, I give some group assignments; they have homework
assignments. The blended class, the class I have in blended, they have power points, they
have lectures online, they have work of the other students online, I assign them more
assignments, they have critical thinking questions that I assign online, they have online
discussions. When they come here, I try to do a little more lab work, I use the fake arm
technology a little bit earlier than I do in the face to face work. Again, not only is it
online, it is also in a shorter time period. So that tends to be the difference. I go over the
key points in the power points but I don’t re-lecture them. We go over key points of
laboratory procedures we have discussed. So I want to stress those things. We have to
pull different colored tubes for different tests, do more activities where we try to blend
other things. The students who are face to face with me have more time to do that with
me, so I try to stress those things in the time I have with the blended students. It’s never me lecturing them fully for every class we meet.

Interviewer: So most of it’s application (Phlebotomy, 2013).

3.4 Vocational Courses

Student Option Course Design as a Blended Model

One variation on the blend of online and face to face learning was the ”student option class.” Student option classes allow the student to take the coursework in a face to face environment, but, if the student’s schedule does not allow the continuance of the course in a face to face format, the student can switch to a totally on line learning experience-or vice versa. Students must commit to the option they have chosen once it has been chosen and may not switch back to their previous mode of study. While these courses are not designed as blended learning experiences, they possess certain superficial similarities to blended learning, but the design is based on student convenience; it is not a planned course of study that intends to engage students in a blended environment. The student option and the increased interaction of online materials with face to face classes illustrate how the strict lines between face to face and blended learning are dissolving at this college (CIS, 2013).

3.4 Faculty Critical to Student Success

Finally, among all teachers, the perception existed that some students did not function well in a blended learning environment, needing the external motivation from being in the same classroom with the teacher that could only occur in a face to face environment. Faculty members
universally expressed the opinion that although blended learning was more user friendly to students’ schedules this type of coursework required greater self-discipline and time commitment on the part of the student compared to face to face learning.

History: Faculty: Yes! Because I have had some students say they like the face to face better, and I say to them, no, you like it because you don’t have to take charge of your own learning. In an online space in a blended space, they have to take charge of their learning, which they don’t like to do.

History: Faculty: No. They’ve complained about the amount of work in a blended classroom and I think that is a reflection of my trash can student thesis. They are not asked to engage in a traditional face to face, you know, so they complain. And I sympathize and understand. It’s the real world and I am happy to withdraw them and they can find another class, but I’m not changing. I have good reasons for doing what I’m doing. (History, 2013)

Faculty: Well, students who take face to face maybe know they are not disciplined and they want to take the lecture. And they don’t want to take the lecture and read through the materials and do all the outlines, but to say that any one of them has made any comments, it would more likely be from the face to face student unless one of the online students went out of their way to email me. Students who have taken on online class have wanted to know if I were teaching more subjects because they liked the format I used. Sometimes in a face to face class, I may get a student who is obviously very knowledgeable on the subject and I will ask them if they are bored by this class and I say would you rather take
this online? And they say, “Nah, I don’t like the online format; I’d rather take it face to face.” I don’t know if I answered your question… (CIS, 2013)

Faculty: Right. And even though some students just feel that although they do well in the online environment, they feel like, they prefer to have a teacher in front of them providing instruction. It’s largely because, for some of them, it’s not something they have a lot of experience doing, and it’s not something they have a whole lot of practice doing, because in high schools not a lot of that takes place. And they don’t have a lot of experience in learning that way or thinking they can do well that way. They still tend to question whether than can experience (partly inaudible) learning in that environment (CIS, 2013).

Interviewer: So, it strikes me, and forgive me if I am being too presumptive, it sounds like you have to have a certain amount of self discipline or executive skills and that comes from some kind of …

Faculty: Well, some students are not disciplined and have to be disciplined to finish their coursework… Some students are not disciplined and that’s one reason I stopped offering some of my intro courses that I used to offer as student option format as students would learn all the coursework in the student option format, and then stop coming—they thought it gave them license to stop coming. So I stopped offering that format—you either opt to take it online upfront or you opt to take it face to face. (Communications, 2013)

**Student Self Efficacy and the Influence of Blended Learning**
As noted previously, there was some hesitation to define self efficacy, and some faculty would not—or could not—provide a definition. Still, no faculty member directly attributed an increase in motivation, persistence or self efficacy exclusively to students’ enrollment in blended learning classes. However, most of the six respondents observed increases in motivation, persistence, and self efficacy as indirect results of blended learning, but only after students experienced an acclimation period to blended learning or after receiving assistance from faculty.

Interviewer: Have you ever seen any changes in students’ self efficacy as a result of participating in blended learning?

Faculty: Yes. I’ve seen them start up really slow during the first six weeks, where they were behind on all of these assignments and they’re able to make it through. These are the students who we see who usually have a minimum grade level of C or better, and they end up just sneaking by with that C and they end up really getting involved in a lot of the procedures and they are in the lab actually drawing blood, the motivation goes up, with the knowledge that we give online and the lectures we have at home, their knowledge and engagement level was really up, becoming more actively involved in it. I think that is a change (Phlebotomy, 2013)

Early Education: Interviewer: Have you seen any changes in student self efficacy as the result of participating in blended learning courses?

Faculty: Yes. Several students—just about all my students actually, especially students that are English language learners, because I am able to communicate with them the areas that they need to work on—we use a lot of newsletters and parent letters. And we work so
they know how to change it for the next time. So, every time we do it, we take those things they need to work on that were explained to them individually, then as time goes on they don’t need to rely on me so much. For every assignment they won’t come to me so much; they learn to proofread themselves and when they make some errors they can recognize them by themselves (Early Education, 2013).

Interviewer: Have you seen any changes in student self efficacy as a result of their participating in a blended learning course.

Faculty: Tremendously, tremendously. Because they learn how to learn in a different environment and then we apply it, so they get the best of both worlds. And I think this…I am looking at a picture of a little girl right she started this program had probably had very low self esteem, had very low communication skills and probably a very poor social life so on and so forth probably did not feel good about herself or feel like she could be of self worth or have self worth for anything and finished these two years. I am looking at her in this picture because she gave a speech at the end. Even when I met her online I thought to myself this little girl is going to be so unbelievably shy and we’re going to have a lot…

So I think that this blended environment is like a win-win situation especially for a student like that. Like it gives her a chance to be shy when she needs to be and then helps her get the confidence from the online stuff to then put it into play in real life. It’s almost like you get to rehearse (Phlebotomy, 2013).
Faculty: OK, so self efficacy is the belief you can do things. I think that’s a hard one. I think one of the classes I have taught where I could say “yes” to that is, in one of the classes I teach. It is a class that is offered solely online and the students can’t take face to face, and it is an Introduction to Computers for Health Majors, so it is not a course where students have chosen computers as their field of study, but they are forced to take the course. And I do see those students in my office often as they are having problems, and those students often say they would never be able to do this, but they do realize they are able to do this, so those students I would think, would definitely see an increase in what they can do versus what they thought they could do.

Interviewer: Just for background, the roots of self efficacy go back to the late 19th century, but are most often associated with a social psychologist named Albert Bandura. So for the class you mentioned you saw an improvement?

Faculty: Yes (CIS, 2013).

Interviewer: Do they show more engagement, do you think? You touched on this earlier.

Faculty: Yes. Well I think the ones that stay do. One of the problems with a community college is that retention is not what it should be. But I find those who stay in both the blended and online (and I know I am not supposed to talk about it), the ones that hang in there are really engaged in what they are doing, even those who quote “hate history” even as most of them say in the beginning (History, 2013).

Interviewer: Well, we are looking at whether you think it helps them stay at college…
Faculty: Well, again, that is the whole issue of first and second year students at a community college. There are a lot of students we serve now and if they aren’t motivated, if they don’t have a reason for being here, they are not going to persevere. If they have a working goal as to what their dream job is and if they are in a program that says this is what I need to do get where I need to go, persevere. The ones who don’t are those who are just going to the school because they have been told they have to do something with their lives and who don’t want a 9-5 job, or the ones who have always sort of slid through life and are looking for easy A’s, or are told they have to do something are the ones who don’t succeed (Communications, 2013).

Interviewer: But what do you think would be the disadvantages of a blended class versus an in person class?

Faculty: The disadvantages I think of a blended class is that they have a tendency, if it is a true blended class, when I am really relying on them to go online and do things on their own some of the students don’t necessarily go online and do the things that they’re supposed to do, and it is a bit more of an independent class I think when it’s a blended half and half model, and some students just don’t do well with that. They need someone constantly reminding them and constantly right there, face to face keeping them accountable. Whereas, emails and things like that, they can easily ignore me (Early Education, 2013).

**Self Efficacy and Persistence based on Faculty Opinion of Blended Classes**
Three faculty members (one of whom recently won an award for blended program design) felt that once students settled into a blended class, they did well and started to show a firm commitment. These same faculty members also believed that students showed more engagement, involvement and persistence in blended education overall. The inference that could be drawn from this (and which was corroborated by the interviewees) was that students needed some kind of guidance or adjustment period for the student to get used to the blended classroom environment. The faculty respondents who viewed blended learning positively noted that students seem to “get” more academically than students in face to face or online learning. Most faculty respondents noted that students also have to have something of value communicated to them through blended learning, and faculty interaction and feedback were extremely important for tapping into blended learning’s potential to increase persistence or success, although some faculty saw no difference in engagement, involvement or persistence between learning modalities.

**Faculty View of Student Characteristics and Success and Self Efficacy**

The faculty respondents noted that, typically, older and more serious students enrolled in blended learning. Several faculty members added that, once blended learners had gotten over the initial surprise of what they were supposed to do in a blended class, students’ confidence and self efficacy increased dramatically in a blended class. These learners had a sense of mastering something (the online component of a blended class) and formed groups enthusiastically. As noted earlier, blended learning students were more motivated and more engaged in active learning and about four of the faculty members were confident that the coursework would stay
with the student longer. However, the cultivation of student motivation was up to the student him or herself, but increased feedback from the faculty member to the students increased students’ interest. Faculty members noted that students in blended classes had to overcome more than students in face to face classes, and this knowledge could be translated to other technologically-based skills. It was also mentioned that students see results faster in blended learning classes than in either face to face or online learning environments, as they have the online component of blended learning as a theoretical foundation and the in-person component as a practicum. Feedback had to be generated quickly by faculty to achieve this result however, and it was believed blended learning placed more pressure on faculty.

However, other students have come through the system but don’t need teacher validation to show self efficacy. One faculty respondent observed that self efficacy enables and empowers students to conquer something they had not been able to do previously; it provided an opportunity for success the student had not had previously (Massage, 2013). The blended class, by its very methodology, attracts self starters, which faculty stated was usually not the case in face to face classes. Students’ research into additional topics on their own, as observed on the blended class, demonstrated self motivation which was synonymous with self efficacy. Finally, one faculty respondent noted that increases in English language learners proofing their English language submissions were higher in blended learning environments.

Interviewer: Do students in blended classes seem to approach coursework with more self assurance, engagement, and/or perseverance?
Faculty: I would like to say “yes” in some instances. There are some classes where we use the blended approach and because of the educational approach in which students start teaching each other working with each other educationally and they are posting things to each other and able to hear real life experiences and learn about resources, lesson plans, life experiences that they can use later on and they can think and provide each other with practical resources and that is something they really have to do. You want to cover everything and you can’t so these resources and experiences provide them with lessons they can go back to later on, and I think that is really important to them (Phlebotomy, 2013).

Interviewer: And do you think students in blended or online show more engagement than those in face to face classes?

Faculty: I am not sure what you mean. Do you mean engaged in the content?

Interviewer: In the class work.

Faculty: I really think it depends on the individual student, not the modality; it really depends on the student.

Interviewer: Would you say the same thing about student interest?

Faculty: In my classes, I teach career, so all the things they take in my classes, they take because it is their program of choice. So it’s not like they are taking history because they have to take history; that’s what they hope to get a job in, so I think that the student interest is there; that’s their program of choice, unless in the intro classes they find out
that this is really not what I’m interested in or what I am designed for, but usually the level of interest is already there. At least, that’s what I’ve found (CIS, 2013).

Interviewer: Do students in blended classes seem to approach class with more self-assurance, engagement and interest than students in face to face classes?

Faculty: Yes; and I think we’ve kind of addressed this issue earlier, especially for our students who aren’t quite so sure they are going to be successful and are a bit apprehensive, And even for students who have done well in the class, some say “Even though I got an A in this class, I am not sure I will do it again. It was too stressful.” And they are worrying about whether they will do well.

Interviewer: Do you think blended courses help increase students’ motivation to succeed and if so, how do you know?

Faculty: Only because of the apprehension about the use of technology, they may tend to take more time to make sure they are doing things correctly. In face to face classes there is less opportunity to check how they are doing. I tell students in an online/blended class, there are always opportunities to check your grade or your grade average and see how you have done, plus I am always emailing students and sending them reminders, if the students haven’t completed stuff, I know the students who haven’t But in terms of their motivation, I don’t know if it increases their motivation…again, it depends on the student (Communications, 2013).

Differences between Vocational/Occupational and Required Courses
Most faculty members noted that some students went above and beyond course expectations in a blended class. The faculty respondents noted that students investigated and researched related areas not assigned by the faculty member as a result of being able to do work online. Faculty interviewees noted that some students came into the courses excited to be there, and some formed their own study groups without direction from the teacher. Several faculty members observed that students often came to the face to face portion of the blended class better prepared than students who were in face to face classes, particularly in vocational fields like medical and massage.

Faculty: Yes. I’ve seen them start up really slow during the first six weeks, where they were behind on all of these assignments and they’re able to make it through. These are the students who we see who usually have a minimum grade level of C or better, and they end up just sneaking by with that C and they end up really getting involved in a lot of the procedures and they are in the lab actually drawing blood, the motivation goes up, with the knowledge that we give online and the lectures we have at home, their knowledge and engagement level was really up, becoming more actively involved in it. I think that is a change opportunity to practice skills they had been studying online (Phlebotomy, 2013).”

In general, faculty observed that students showed more engagement in and prioritization of “occupational” classes than in non-occupationally based courses. Four of the subject areas explored (massage, early education, information technology and phlebotomy) were occupational/vocational courses; two were required core courses (Communications and History). Student attitudes towards the course material, especially whether or not it relates directly to the
occupational field in which they are training, may be another unanticipated factor in student self efficacy in blended learning. The Computer Information Technology Professor stated that “you have to understand this is a career course; students know they must take this course to finish their training (CIS, 2013)”. The History faculty member, who possessed the most online and blended teaching experience, was aware that many students in class were there because the course work was required to complete a degree or required program of study and it was believed students might rather be elsewhere. Consequently, the History faculty member felt the course had to be as interesting as possible to hold the students’ interest. From experience, this faculty member knew students had three different levels of learning commitment: 1) those who were disinterested and perhaps departing early; 2) those who would put forth minimal effort and hope to complete with a “C”; and 3) the totally engaged student. The respondent stated the distribution of the class was like a bell curve, with those in the middle (“C”) group constituting the majority of students. Those who were engaged were fully engaged, and used blended learning tools extensively, above and beyond the minimum requirements of the classes (History, 2013).

Interviewer: Do students in blended classes seem to approach coursework with more self assurance, engagement, and/or perseverance?

Faculty: I would like to say “yes” in some instances. There are some classes where we use the blended approach and because of the educational approach in which students start teaching each other working with each other educationally and they are posting things to each other and able to hear real life experiences and learn about resources, lesson plans, life experiences that they can use later on and they can think and provide each other with
practical resources and that is something they really have to do. You want to cover everything and you can’t so these resources and experiences provide them with lessons they can go back to later on, and I think that is really important to them (History, 2013).

Interviewer: How about engagement? Do they seem to be more engaged? Do students seem more engaged in a blended environment? I don’t want to lead the question.

Faculty: Engagement-wise, sometimes students in a face to face are quite quiet, they’re afraid to talk, whereas in a blended, they’re a little more confident, they have time to think of their answer, they can look it up, they can wait for other people to answer, so you hear from more students sometimes in the online environment. I thought that I found, in a face to face that I had to pull things out of people, whereas in the online environment, if you let it just happen over the week, eventually everyone speaks up, because they have to and its interesting you find that quiet, quiet person in your class that becomes very powerful online and I love that, you know, I love that—I love seeing that other side of students especially that the computer gives them some self confidence that they don’t have, especially the younger kids. They’re always texting, they’re always on the computer and then you put them face to face and they freak out on you (Massage, 2013).

Most occupational/vocational teachers had generally positive things to say about the engagement, involvement and persistence of students in blended learning. Specifically, the faculty members felt that students in blended classes got and gave more feedback, were more engaged than students in face to face classes, and also tended to show more persistence than those in face to face classes. However, the issue of persistence and involvement was not
consistently held by all teachers and some faculty appeared to contradict themselves about this topic within the same interview. Persistence was noted if students lasted a certain amount of time—from two weeks to as much as seven weeks of class. The interviewees did not indicate what percentage of their classes did not finish that “trial” period.

**Faculty roles in Blended Learning Success—An Analysis of an Unanticipated Finding**

One finding of this study which manifested without being asked as a direct question was the faculty’s belief that faculty members were critical to student success in both blended and non-blended classroom environments. This opinion was freely offered and not sought. The perception that faculty involvement was critical manifested in a variety of interview questions. All respondents felt that blended classes required a great deal of faculty preparation. Most professors reported students had told them other blended classes were not as well managed or responsive to their needs as the interviewees’ class, or that students were not hearing from “other” teachers as often as they should. Finally, almost every respondent noted that students could lose track of assignments when due; the strength of a face to face class was the faculty reminding students when materials were due. Students were given credit for taking the initiative, but 1) only in exceptional cases did the initiative come directly from the student; 2) initiative usually manifested after a few weeks of blended classes; 3) students were only taking blended classes because of scheduling issues; and 4) students might opt out of blended classes in the future because the coursework was more demanding than face to face classes. Extra work done by students was viewed with surprise by some faculty, as was the positive performance of some
blended class cohorts. From the perception of the interviewees, faculty support was the key
difference between student success and failure.

Faculty: Umm, not that I feel that I need to add. I am excited about where my programs
have moved and the direction in the past five years. I don’t see us turning back—whether
I like it or not—I don’t see us turning back and it changing. I think it’s actually going to
change the way the future will be. I have a daughter that graduated high school last year
and she went away to college this year. If the college did not have a learning management
system, hybrid courses and online courses, she would have been quite disappointed
(Massage, 2013).

So as a teacher, I think that way, that if we can strike that spark of motivation, it’s going
to grow, but I’m not sure. I think the blended classroom might help because …. Okay,
you asked me a way back for the definition. I see the blended classroom as a shared
journey, with me as the guide on the side and the student doing the work.

They (the students) prefer to have a teacher in front of them providing instruction. It’s
largely because, for some of them, it’s not something they have a lot of experience doing,
and it’s not something they have a whole lot of practice doing, because in high schools
not a lot of that takes place. And they don’t have a lot of experience in learning that way
or thinking they can do well that way (History, 2013).

And they stay in my course, and they are successful. The reason they are successful in my
course is because I lay it all out for them and guide them along the way, so they always
know what they need to do and everything is at their disposal, and sometimes I get
students comparing me to other courses and saying the other course I had was nothing like this; I had very little contact with the teacher and very little guidance, and very little description or guidance or telling me what to do… (Communications, 2013).

Several faculty respondents noted increases in active engagement among learners, increased enthusiasm and increased responsibility levels among blended learners and also noted that students wanted more structure or needed reminders to submit assignments in blended learning. This reinforced the observation that students were not adequately prepared, socially or technologically, to effectively take part in blended learning.

Faculty: For some of them I think they don’t realize the amount of skill they need to have to operate the systems we are asking them to operate. I think the population of students that I work with in particular, don’t tend to have technology skills in general, so it becomes very challenging for them. I think some of the students perceive the difference between the two courses as being more convenient in terms of the timing for them, and that’s why we offer them, in terms of that convenience, and for those students, they take it for the convenience whether they have the skills or they don’t have the skills. We find that out and try to support them as best we can (Early Education, 2013).

Faculty: I think that in regards to students, especially today with student moms and jobs, obviously it is the ability to complete a degree without having to commit to specific hours of the day. So it gives them the flexibility to complete their coursework in the middle of the night if they so choose, based on their family and job needs (CIS, 2013).
Faculty felt students had previously been used to relying on people in the schools to give them encouragement, to build their self esteem “…so there’s kind of a disadvantage to those students because they are coming in not knowing…they don’t have a sense of who they are, of what they are capable of, like whether they are good with math or had barriers. And some of the students who were on IEP’s (Individual Educational Plans for students with special learning needs) in school may have doubts about their abilities. But there are other students who have been through all this and have a good sense of what they can do and who they are and they don’t need me to motivate them to learn to do this (Communications, 2013)”.

Faculty: I don’t know. I don’t know if I see the blended courses…I think the blended courses require them to use the internet and the world more, so maybe that could facilitate more interest in say, research or—because if I force them to do research in the blended environment, you know how it is, you go from one thing to another and next thing you know you are reading another, you know you are reading a bunch of things, I’ll find that the online and blended kids will say “Hey, did you see that?” Hey did you read that?” “hey did you…?” so see that possibly that might increase their motivation cause when they see studies and research going on, it’s exciting…so possibly. The face to face kids still do their research. But students that are on the computer more surf more without a doubt. (Phlebotomy, July, 2013)

Interviewer: Do you think blended learning improves students’ ability to persevere? If so, how?
Faculty: Oh I definitely think it probably increases their ability because they have to overcome more in the online environment--one hundred percent. And it increases their abilities to do other things that carry over to other parts of their life. Silly stuff, like attachments and emails and developing letters and you know things that they are always going to have to move forward. So I think it’s got to give them a really good sense of accomplishment and really give them a really good sense of other skills they can now do as they move forward. Not just, you know, I learned pathology (Massage, 2013).

Faculty: Well, for the advantages, especially here, I think it allows us to target certain students. The advantage to the student; they do most of the work on line; they meet here for the labs, because you can’t teach phlebotomy, or drawing blood out of an arm, completely online and we can capture that environment here. But it allows students who would not have been able to do these courses here to do that. The other thing that I really like—I am a very firm believer in active learning—I am not the kind of professor who gives you the printed power point and just expects you to sit there and stare at me. I want you to work. And the nice thing about this is they do have to work with it all on their own, but they are coming in with an almost more solid base, when they are coming into see me with the labs, because they had to do assignments, they had to do more work, so they had to put more into long term memory versus short term memory. So that’s the strong advantages. The disadvantages? You get the unmotivated student. Not all students belong in an online environment or in a self-paced environment. They don’t have that experience or motivation to do it. I find that sometimes I get half classes—some of the students are motivated and others aren’t and think they are going to pull it through—and
they don’t. So that’s my big disadvantage—my face isn’t there all the time reminding them (Phlebotomy, 2013).

Summary of Findings

Faculty showed considerable internal confusion about the meaning of self efficacy and, to a lesser extent, blended learning, mainly because of the multiple ways in which coursework is offered through combinations of online and face to face formats. This throws the definition of blended learning into question as it related to this study. Likewise, faculty seemed genuinely uncertain about whether students showed increased self efficacy as the result of being enrolled in blended learning environments. Some faculty held the opinion that this was occurring, but only after prolonged student acclimation to the environment of blended learning. Although self efficacy was observed in certain blended learning environments, the reason for increases in self efficacy was a complicated blend of factors, including student motivation, course design, whether or not the course was a vocational course or a course required to complete degree or certificate standards, and whether the students were adequately trained in the use of technology. This latter element was a universal concern, as professors viewed students as inadequately prepared, both technologically and pedagogically, for the demands of a blended course. Consequently, some faculty felt some students might avoid blended courses in the future, or prefer to take face to face courses if their schedules allowed for face to face coursework. Finally, faculty respondents stressed the importance of faculty involvement in ensuring student success, whether in blended or face to face classes.

Section 5: Conclusion and Recommendations
The purpose of this study was to address whether or not faculty perceived that blended learning environments affected student self efficacy. The inquiry was built on several interrelated emerging practices and premises including the increasing use of blended learning as a student study option (Allen & Seaman, 2008; Allen, Seaman, & Garrett, 2007; Babb, Stewart, & Johnson, 2010; Lloyd-Smith, 2010; Means, Toyama, Murphy, Bakia, & Jones, 2010; Peinovic, 2008), and the results of earlier studies that indicated that students seemed to feel they gained self efficacy from blended learning as well as experiencing increased independence and convenience (Hannay & Newvine, 2006; Majer, 2009; Puzziferro, 2008; Xu & Jaggars, 2011). Existing research about faculty perception of blended learning was not extensive and what research did exist showed inconsistent results in how faculty viewed the effect of blended learning on student self efficacy and self confidence (Murphy & Rodriguez-Manzanares, 2009; Popov, 2009; Zhen, Garthwait, & Pratt, 2008). Also, previous studies demonstrated faculty perceptions did not agree with student perception about whether blended learning increased student self efficacy (Coogan, 2009; Hannay & Newvine, 2006; Kim & Bonk, 2006; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009; Newman & Couturier, 2001; Peinovich, 2008; Power & Gould-Morven, 2011; Xu & Jaggars, 2011)). The key purpose of this thesis was to examine the perceptions of a small group of faculty on whether blended learning contributed to student self efficacy. The study focused on faculty at a community college as these postsecondary institutions typically have low retention rates (Becker & Gable, 2009; Kumar, 2011; Liu, Gomez, & Yen, 2009; Poellhuber, Chomienne, & Karsent, 2008; Puzziferro, 2008).

The main theoretical foundation employed was Bandura’s theory of self efficacy (Bandura, 2002; 2011). The Bandura theoretical foundation was reinforced by use of Vygotsky’s
theory of communities of learning (Rendon, 2005; Vygotsky, 1978) which shows a theoretical consistency with Bandura (Ferrari, Robinson & Yasnitsky, 2010; Vygotsky, 1978). Dede’s recent work in on-line theory (Dede, 2007; 2009) and Prensky’s theories of digital natives (2008) are also employed in analyzing how blended learning has been linked to the facilitation of learning. Bourdieu’s concept of *habitus* was also useful as it could explain how expectations affected perceptions of the value of different learning environments (Bourdieu, 1986).

**Findings Compared to Theory**

The major findings of the study were in three main areas. The first finding was that students were not adequately prepared for blended learning. Sub-findings here were: students lacked exposure to blended learning; students lacked “professional” use of computers (knowing how to use computers to attach documents, for example); and students had low expectations of blended learning course difficulty. The second major finding was that students needed direction in blended learning course. Sub-findings in this area included: students in blended learning classes were not confident learners; students preferred face to face learning to blended learning, according to faculty and students’ desired Faculty interaction. The third major finding was faculty hesitance to define blended learning or self efficacy. Related sub-findings were that: faculty observed some students showing self efficacy in blended learning classes; faculty perceived the lines between blended and face to face learning are blurring; faculty felt vocational student involvement was affected if the student were in a vocational course as opposed to a “required” course; and faculty felt they were essential to student success.

**Student Preparedness for Blended Learning**
Faculty interviewees believed that most students lacked exposure to blended learning (Dziuban, Moskal & Hartman, 2007; Murphy & Rodriguez-Manzanares, 2009; Popov, 2009; Zawacki-Richter, 2009) despite students’ status as ‘digital natives’ (Prensky, 2008). They could text adequately, but lacked exposure to using computers in disciplined learning environments, perhaps because of unfamiliarity with or minimal previous exposure (Bandura, 2011; Bourdieu, 1986; Dziuban, Moskal & Hartman, 2007; Lu & Chien, 2011; Vygotsky, 1978). As Bandura (2002; 2011) stressed, self efficacy can be a gradual process. Students can build on small steps of exposure to learn self assurance and self efficacy (Becker & Gable, 2009; Shen & Liu, 2011). Being exposed to and comfortable with computers and other virtual media are not guarantees that students will be able to translate that experience into a meaningful learning experience because the student may have no context for using this technology in a learning setting (Byrk, 2006; Lu & Chien, 2011; Napier, Dekhane & Smith, 2011; Oblinger & Oblinger, 2005; Owston, York & Finkel, 2013; Prensky, 2008; Xu & Jaggars, 2011).

**Learner Confidence**

Another key set of findings involved the level of learner confidence the faculty experienced among blended learners and the perceived need for teacher direction, support, and approval. The interviewees felt students took blended courses solely because the coursework fit into their schedule conveniently (Byrk, 2006; Oblinger & Oblinger, 2005; Xu & Jaggars, 2011). Faculty respondents also noted that homework was often not turned in on time or submitted at all in blended learning classes. Faculty stated that no students appeared to be confident learners when they started out in blended learning and the students needed acclimation to the blended
learning process (Becker and Gable, 2009; Owston, York & Finkel, 2013; Vygotsky, 1978). Some professors theorized that students had not been exposed to this kind of learning environment (Dziuban, Moskal & Hartman, 2007; Owston, York & Finkel, 2013; Poon, 2013) and the students had difficulty fulfilling the specific requirements of the blended learning environment (Bandura, 2011; Liu, Gomez, & Yin, 2009; Vygotsky, 1978) or were used to different kinds of class environment and had little previous exposure to classes exclusively devoted to blended learning (Bourdieu, 1986; Napier, Dekhane & Smith, 2011; Poon, 2013).

**Students Prefer Face to Face to Blended Learning**

Faculty respondents believed that students did not prefer blended courses and would not take them again because of the amount of work students had to complete to fulfill blended learning course requirements (Daniel, Schwier, & McCalla, 2003; Lotkowski, Robbins, & Noeth 2004). Also faculty expressed the opinion that student expectations were not being met by blended learning (MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009). Both faculty and students, according to faculty interviews, felt that the blended learning environment was tougher than they expected and the amount of work expected was more substantial than in a face to face class (Owston, York & Finkel, 2013). This has been observed by other researchers (Huang, 2002; Napier, Dekhane & Smith, 2011; Poon, 2013; Power and Gould-Morven, 2011). Faculty felt that students in blended classes missed having the teacher tell them what to do and remind them when assignments were due. Faculty observed that students had learned to approach courses in a certain way (Bandura, 2002; 2011; Bourdieu, 1986; Murphy & Rodriguez-Manzanares, 2009; Zhen, Garthwait, and Pratt, 2008) and blended learning required that
students become actively involved in their education rather than be passive learners (Dede, 2007; 2009; Kitsantas, 2013).

Several faculty interviewed noted that students did not like blended courses because students desired more structure and regularity in order to submit assignments in blended learning on a timely basis (Bourdieu, 1986; Murphy & Rodriguez-Manzanares, 2009; Zhen, Garthwait, and Pratt, 2008; Vygotsky, 1978). A recent study (Poon, 2013) corroborates the observation that the students were not adequately prepared, socially or technologically, to effectively take part in blended learning and had not been trained to use technology and software specific to the blended learning environment (Bandura, 2011) or provided with reinforcement required for success in blended learning (Dede, 2007; Heaton-Shreshta, Mayb, & Burkec, 2009; Lai, 2012; Shen & Liu, 2011). For example, interviewees felt that students’ limited background interfered with their ability to see the pedagogical value of blended learning (Becker & Gable, 2009; Green, Edwards, Wolodko, Stewart, Brooks, & Littledyke, 2010; Kim & Bonk, 2006; Lloyd-Smith, 2010; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009). Faculty also reported that some students stated they would not take another blended course because of the work involved (Nichols, 2010; Owston, York, & Finkel, 2013; Reason, 2009; Tinto 1975).

Students Desire Faculty Interaction

The Massage Therapy, History and Communications professors felt their particular students responded well to them in their classes because of the particular way in which individual faculty designed and delivered blended learning to the students (Kitsantas, 2013; Poon, 2013; Public Impact, 2013). This led faculty to believe that the success or failure of
blended learning depended more on curriculum and faculty support than on the blended learning delivery system (Murphy & Rodriguez-Manzanares, 2009; Popov, 2009; Poon, 2013; Zhen, Garthwait, & Pratt, 2008), although this could have been another way for faculty to stress how indispensable they were to the learning process (Popov, 2009).

**Total Failure of One Blended Learning Course**

Only one professor felt blended learning had been totally unsuccessful for her and her students, but her class had previously been taught primarily online. Also, the course was a computer discipline, which seemed to lend itself to totally online instruction. There was little incentive for her to run a blended class because she had success with online classes. In the blended learning environment, students did not show up for the blended portion, but there also appeared to be little investment in developing a different type of blended class as it was only tried once, then rejected as unnecessary. The faculty member also indicated that her course was a required vocational course, which students had to take in order to qualify for vocational certification by the school. Amira and Jelas (2010) showed students’ learning styles may vary according to gender, age, and course type in a blended learning environment. The mandatory nature of the computer information system coursework, or the coursework itself, may not have been amenable to a blended model (Owston, York, & Finkel, 2013). However, that the course was only offered once in this format may have meant that teacher or students had insufficient time to adapt to a blended learning environment (Becker & Gable, 2009). Faculty dislike of the format (Popov, 2009) could have also been an influencing factor.
Other courses showed the online component of blended learning allowed students to research their subjects prior to the in person part of the blended class (Heaton-Shreshta, Mayb, & Burkec, 2009; Lai, 2012; Rovai & Jordan, 2004; Shen & Liu, 2011). Some faculty (Massage, 2013; and Phlebotomy, 2013) required in class components because of the necessity of hands on application of skills learned online (Bandura, 2011; Blake & Pope, 2009; Dede, 2007; 2009; 2011; Evans, Mulvihill & Brooks, 2008; Ferrari, Robinson & Yasnitsky, 2010; Prensky, 2001; 2008). 

Also, among those who viewed blended learning positively, faculty either had a great deal of experience working in the blended idiom or showed genuine enthusiasm for blended learning (Alghazo, 2010; Coogan, 2009; Yuen, 2011; Zawacki-Richter, 2009; Yuen, 2011). The two faculty members who disliked or tolerated blended learning were vocal in their opinion of its lack of value, highlighting interaction of faculty enthusiasm and student enthusiasm as an under-researched component of the literature (Hannay & Newvine, 2006; Kim & Bonk, 2006; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009)). Two out of the six faculty interviewed during this research showed a lack of enthusiasm for blended learning (Kim & Bonk, 2006; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009; Power & Gould-Morven, 2011). The faculty’s lack of enthusiasm could be interpreted as a need to retain control of students’ coursework. However, all faculty interviewed acknowledged that some students’ busy schedules left students no other choice but to take the coursework in a blended format (Murphy & Rodriguez-Manzanares, 2009; Popov, 2009; Zawacki-Richter, 2009). The availability of courses in various formats (blended, online, student option) appeared to be a way of accommodating students who needed the convenience of virtual learning and could not manage to attend face to face classes, or who wanted the supervision of a classroom structure,
but could not attend a structured blended class. Overall, faculty believed that blended classes were more work to run properly as well as more work for the students (Popov, 2009).

Differing Interpretations of Blended Learning

Faculty felt learning environments, face to face, blended, or online, are starting to blur (Public Impact, 2013). The lack of a definition by faculty seemed to be tempered by the sense that blended learning was expanding to include online support of face to face classes, online grading for faculty, and online lecture materials for the students. This, to the faculty, meant that face to face classes were becoming more a part of the blended world (Napier, Dehane & Smith, 2011; Poon, 2013). Although faculty thought that teaching blended learning required more time on their part, there was also praise for these new tools which were at their disposal, as it made student access to materials easier and more useful (Shen & Liu, 2011; Xu & Jaggars, 2011). Faculty also felt that, at a minimum, online access helped students become more actively engaged in the learning process, researching things on their own and researching new areas on their own (Amira & Jelas, 2010; Moeller & Reitzes, 2011; Public Impact, 2013).

However, it might have been interesting to probe a little deeper as to why—other than attendance issues—one faculty member felt blended learning was a “waste of time” for her and her students. Was it because her coursework had been offered online with better results? Do certain courses lend themselves better to online or face to face learning than blended learning? Is a computer course less social than a medical course? Do students in vocational courses feel they have little say in how they learn?

Faculty Observed Some Signs of Student Self Efficacy
Faculty who taught vocational courses noticed blended students seemed better prepared for the in-person component of blended classes than students who were at comparable stages of the coursework but who were taking face to face classes. One faculty member felt this was because of repeated exposure to the material (Becker & Gable, 2009; Coogan, 2009); others felt this comparatively high level of preparation was fueled by the desire to see theory (the online component of the course) exercised in practice (face to face) and the student wanted to be ready for the face to face component of the blended learning class (Amira & Jelas, 2010; Moeller & Reitzes, 2011; Public Impact, 2013).

Interviewees universally stated that students took blended classes mainly because blended classes fit more comfortably into their schedules (Murphy & Rodriguez-Manzanares, 2009; Popov, 2009; Zawacki-Richter, 2009). No interviewee felt that students preferred a blended course design to a traditional face to face design (Popov, 2009). However, there were small but noticeable variations as to why interviewees said students preferred face to face classes. Some faculty said students preferred the instructor’s presence as a reminder and support mechanism to remind them of when assignments were due and to keep the students on track (Murphy & Rodriguez-Manzanares, 2009; Popov, 2009; Zawacki-Richter, 2009). At least two interviewees noted that blended learning required a more active learning style than face to face learning, and most faculty said students found this type of learning style to be both unfamiliar to them and more work for them. However, some teachers also indicated that this increased student responsibility, while dissuading some students from taking further blended learning courses, made some students more capable and competent—thus, seemingly more self efficacious, as they learned more self discipline and moved into unassigned areas of work on
their own. One teacher related how a shy student blossomed in the online environment (Amira & Jelas, 2010; Moeller & Reitzes, 2011; Public Impact, 2013). It was also emphasized that courses with this design were new to students in this geographical area (Becker & Gable, 2009; Green, Edwards, Wolodko, Stewart, Brooks, & Littledyke, 2010; Kim & Bonk, 2006; Lloyd-Smith, 2010).

**Faculty are Critical to Student Success**

Among all faculty, the perception existed that most students did not function well in a blended learning environment, unless they received external motivation from the teacher similar to that which would occur in a face to face environment (Amira & Jelas, 2010; Moeller & Reitzes, 2011; Owston, York, & Finkel, 2013; Poon, 2013; Public Impact, 2013). Faculty members universally expressed the opinion that although blended learning was more user friendly to students’ schedules, this type of coursework required greater self-discipline and time commitment on the part of the student compared to face to face learning (Napier, Dekhane & Smith, 2011; Poon, 2013).

**The Blurring of Blended, Online, and Face to Face Learning**

The demarcation lines between a pure blended learning class as opposed to pure online or pure face to face learning seem to have been blurred. Several faculty noted that large components of coursework existed on line for students to access any time they wished and some faculty actually felt this online coursework constituted a form of blended learning. With the availability of online resources and emails, the concept of a pure face to face class seems to be a thing of the past. What seemed to most differentiate blended courses from face to face courses, was the
amount of active learning required of students in a blended class, and an intentional class structure of blended learning versus the ubiquitous use of online resources or online learning mixed with face to face learning (student option, resource sharing, lecture capture, etc ((Bandura, 2011; Bourdieu, 1986; Dziuban, Moskal & Hartman, 2007; Lu & Chien, 2011; Vygotsky, 1978). This reinforces the findings of some earlier studies ((Becker & Gable, 2009; Green, Edwards, Wolodko, Stewart, Brooks, & Littledyke, 2010; Kim & Bonk, 2006; Lloyd-Smith, 2010; MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009) which found that blended learning courses, by design or coincidence, required more student engagement than face to face or totally on line courses (Bandura, 2002; 2011; Bourdieu, 1986; ; Dede, 2007; 2009; Murphy & Rodriguez-Manzanares, 2009; Zhen, Garthwait, and Pratt, 2008). According to the History faculty member, some students will not consider a college unless blended coursework is available (History, 2013) and teachers are starting to rely on online access to materials to a greater extent than previously. As teachers and students gain more experience with both blended learning and accessing online materials, it is possible the perception of extra work in blended learning will abate, and faculty may become more adept at making the perception of extra work fade (Kitsantas, 2013; Poon, 2013). The formula for the right balance between the amount of time the students spends on line or in the physical presence of the teacher seems elusive right now and most faculty interviewed were interested in ways to improve the students’ blended learning experience, and perhaps lessen the perception that the work load is more onerous than a face to face class (Echo360, 2011; History, 2013; Kitsantas, 2013; Massage, 2013; Phlebotomy, 2013).
The Faculty as Motivator and Responder

Faculty stressed the importance of guiding the student, but the interviews suggested faculty viewed themselves as being much more. For instance, faculty stressed how important it was to respond quickly to student email inquiries (Kitsantas, 2013). They also stressed the importance of reminding—as they would in a face to face class—students to turn in assignments and reported feeling frustrated when students did not hand reports in on time (CIS, 2013; History, 2013; Moeller & Reitzes, 2011). The faculty also stressed the importance of working intensively with students for the first two weeks of class and offering proper preparation to prep students for classes. Experience had taught them this ramp up time was essential to student success (Bandura, 2011; Becker & Gable, 2009; Rendon, 2006). In addition, recent studies (Moeller & Reitzes, 2011; Napier, Dekhane, & Smith, 2011; Poon, 2013) stress the importance of the teacher as the motivator for student success and self efficacy in blended learning. The concern that some teachers have expressed that students will still need them, from this perspective, seems justified (Popov, 2009).

Faculty Excitement and the Student Self Efficacy

Two thirds of the faculty surveyed seemed genuinely excited by blended learning, its potential and results to date. Others viewed it as no value added or detrimental to courses or students (Amira & Jelas, 2010; Echo360, 2011; Moeller & Reitzes, 2011; Public Impact, 2013). The level of teaching experience did not directly correlate, but only one teacher with more than 10 years experience liked blended learning (Amira & Jelas, 2010; Echo360, 2011). However, the teachers who were more in the middle range of experience (10-20 years) seemed least impressed
or interested in blended learning. There may be a variety of reasons for this perception—the study was too limited to reach any conclusion about this—but perhaps faculty with less than 10 years’ experience were probably not as invested in a certain learning model as those who had taught ten to twenty years (Kitsantas, 2013; Popov, 2009). Those who showed more enthusiasm for blended learning were far more likely to acknowledge student self efficacy in blended learning than faculty who were not enthusiastic about blended learning (Amira & Jelas, 2010; Echo360, 2011; Poon, 2013; Public Impact, 2013).

**The Type of Class Best Suited to Blended Learning**

Some faculty felt that certain types of coursework were better suited to blended learning. For example, the Communications and History faculty openly stated that blended learning was more difficult for their courses that for students taking vocational courses. Both viewed blended learning students in these courses as more difficult to motivate than students in face to face courses—both faculty also viewed students as being less interested in blended learning academic coursework than in blended learning vocational coursework (Amira & Jelas, 2010; Echo360, 2011; Poon, 2013; Public Impact, 2013). The CIS faculty instructor found that blended learning was unnecessary for her coursework (CIS, 2013). Early Education, Phlebotomy, and Massage faculty reported that students showed some self efficacy (2013). These three courses appear to require a combination of theory and hands on practice, which may make the courses more amenable to a blended learning environment (Kitsantas, 2013; Poon, 2013). This has implications for how colleges design their coursework and also what courses should be offered in a blended format, or perhaps even how they could modify courses to make them more suitable to
blended learning formats. For instance, blended courses that require a face to face demonstration of skills may be a better fit than courses in which competencies can be demonstrated online (Napier, Dekhane & Smith, 2011; Owston, York & Finkel, 2013).

**Summary of Analysis**

Although self efficacy appears to result from some blended learning classes, only a very few faculty attributed the blended learning model with any credit for self efficacy manifested among students (Heaton-Shreshta, Mayb, & Burkec, 2009 Maltby & Mackie, 2009). Noting that online allowed more research to occur prior to actual class participation, some faculty in the group interviewed stressed curriculum, teacher responsiveness and effort (being better than other teachers in responding to student needs) (Poon, 2013) as primary contributors to student self efficacy. So, instead of the teacher being a “guide on the side”, which has been the prevalent view of blended learning (Dede, 2007; 2011), the teacher also must act as an agent of encouragement and engagement for learning (Kitsantas, 2013). If anything, student success in blended learning required more active learning on the part of the student and more active teaching on the part of faculty (Public Impact, 2013). Although some faculty in the interview group acknowledged students were showing signs of increasing competency and self efficacy, this shift was attributed to faculty expectations or increased student exposure to blended learning (Bandura, 2011; Becker & Gable, 2009; Kitsantas, 2013; Rendon, 2006). The part of the state in which this study occurred is a lower income area where students, and even some faculty, have limited exposure to online learning (Becker & Gable, 2009; Owston, York & Finkel, 2013).
Therefore, faculty thought the pedagogical value of the blended learning was novel to students in this environment.

It takes me two weeks to socialize them to the fact that they are going to learn a lot more this way then they would in a face to face classroom and all you do is sit there like good little scribes and take it down… After about two weeks, they will begin to ask what the purpose of this is, you know, how do you do this? They begin to get actively involved (History, 2013).

This coincided with observations made in two relatively recent studies from the UK in which faculty felt students were unprepared for blended learning but students felt they were prepared (MacKenzie-Robb & Moss, 2008; Maltby & Mackie, 2009). In these two studies, faculty were concerned that distance from students would lessen the sense of community in classes, and lessen students’ ability to learn because of this detachment; students, for the most part, did not feel that blended learning isolated them and many students felt more empowered in a blended learning environment. Some of the faculty that were interviewed as part of the study conducted for this thesis noted that students often did work above and beyond required work and some faculty observed that skills learned in blended learning could increase self efficacy in other environments (Owston, York, & Finkel, 2013).

**Limitations of the Study**

The study might have benefitted from discussions with students as to how they viewed faculty involvement and teacher participation. It would have also been useful to verify the reasons students took blended classes, and find out from them what they liked and did not like.
about blended learning and whether they felt support from other students (Amira & Jelas, 2010; Moeller & Reitzes, 2011; Public Impact, 2013). Some of the literature suggests that students most often take blended learning courses because of their convenience (Auld, Bumberg & Clayton, 2010; Watson & Gemin, 2009), but many learners view blended learning as both more difficult than face to face learning but of higher quality (Rovai, 2004) and when given the option of choosing blended learning, students have overwhelmingly chosen it as a course format (Echo360, 2011).

The emphasis on the importance of curriculum and faculty involvement might also be tested further; there was no indication provided by any faculty respondent about the “correct” level of faculty involvement or whether faculty could become “too” involved (Kitsantas, 2013). No faculty member interviewed gave the impression that he or she was disinterested or disengaged from her students. Faculty involvement was a key consideration in student success, mentioned by all faculty members (Owston, York, & Finkel, 2013). No faculty interviewee expressed the opinion that that faculty involvement was not a factor in student success. If this opinion had been proffered, it might have been possible to analyze perception of student enthusiasm, engagement, and self efficacy with interviewees who indicated that faculty involvement was not important to student success in blended learning (Public Impact, 2013). Faculty involvement has also been referenced in several studies as being important to student success (Becker & Gable, 2009; Coogan, 2009; Murphy & Rodriguez-Manzanares, 2009; Popov, 2009; Zawacki-Richter, 2009). The emphasis on faculty involvement supports Vygotsky’s theory of engagement affecting learning; faculty engagement is part of the student’s learning environment (Vygotsky, 1978; 1987). Vygotsky noted that when student participation
and active learning intersect, student engagement is enhanced dramatically (Barkley, 2009). Several faculty noted that students showed signs of engaging in active learning in the coursework, as noted by the History, Massage, Early Education, and Phlebotomy faculty members (Kitsantas, 2013; Public Impact, 2013).

**Further Areas of Study Suggested**

Blended learning has been increasingly utilized over the past ten years and it is estimated that 98% of students will use blended learning options by 2020 (Cronenweth, 2013). There will also be massive growth in all kinds of online learning and digital content at all grade levels during the same time period (Christensen, Horn, & Staker, 2013). Almost all teachers (around 96%) find that digital content enhances the educational experience of the student (Cronenweth, 2013). However, while most educational professionals agree that student preparation is necessary for student success in blended learning (Christensen, Horn, & Staker, 2013) the extent of preparation necessary is a topic of debate, as is the right blend of online and face to face class structure, and what type of preparation teachers must have to run successful blended education classes (Horn & Staker, 2012; Lepi, 2014). In addition, it has been observed that some faculty do not want to engage in blended learning because of a lack of awareness of its potential benefits (Lepi, 2014). Blended learning has emerged from being a new disruptive educational experience, leading to discussions about what methods work best for students (Horn & Staker, 2013). Therefore, research into methods and results assumes paramount importance, especially as the utilization of blended components in education becomes virtually universal (Cronenweth, 2013).
There are several groups of studies suggested which could be pursued based on the findings of the research undertaken here. Studies should focus on **Student Perception of Blended Learning**, **Faculty Perception of Blended Learning**, **Definitions of Blended Learning and Self Efficacy**, **Programs of Study and Blended Learning**, **How Different Levels of School View Blended Learning**; and **Schools’ Adjustments to Blended Learning to Increase Student Self Efficacy**.

**Studies involving students**

Studies could be established to determine if student orientation periods make a difference in student self efficacy in other studies. A group at a college that did not have orientation to blended learning could be compared to a group at a college that had extensive orientation to blended learning in order to determine if students showed more self efficacy in either circumstance. The circumstances of the study—courses taught, experience of faculty, student experience with blended learning—should be as consistent between the two (or more) schools as possible, so the only variable affecting the outcome would be the orientation. The design of this kind of study would be qualitative as we are judging faculty *perception* of self efficacy based on learning environments (Creswell, Hanson, Clark & Morales, 2006; Smith, Flowers and Larkin, 2009).

Students in high schools, four year college programs, graduate schools, or in trade/technical schools with blended learning programs should also be studied in a similar fashion, to determine whether self efficacy increases or decreases in blended learning environments in different types of educational settings. These educational institutions have varying degrees of
student educational commitment, meaning that secondary students often must attend school; the other groups can choose or not choose to attend. Students at higher levels of education (four year college and post graduate students) or in trade schools may possess different levels of motivation to succeed than students in a community college (Drucker, 2005; Green, 2003; Kamenetz, 2010; Kitsantas, 2013; Morgan, 2009). Keeping these factors in mind, a study could be constructed that would assess student engagement and self efficacy in these other institutions, comparing student self efficacy comparatively across different school types using self efficacy surveys (Artino & Stephens, 2006; Aykol, Garrison, Ozden, 2009; Danaher, Danaher, & Moriarty, 2007; DeWitz, Woolsey & Walsh, 2009; Magno, 2011; Mattern & Shaw, 2010; Pintrich, Smith, Garcia, & McKeachie, from Mitiadou, 2000; Schwarzer & Jerusalem, 1995) for a quantitative study and interpretative phenomenological assessment for a qualitative assessment as to whether blended learning increased student self efficacy in these different institutions (Bandura, 2011; Smith, 2010).

For students who have completed blended learning at the community college level, it would also be useful to see if students and faculty have noted active learning patterns and, seemingly increased self efficacy among students who had experience in this idiom. This could be done through follow-up surveys and would yield a quantitative study of the students who had experienced blended learning and gone onto further education (Green, de Hoyos, Li, & Owen, 2011; Lynch & Dembo, 2004; Martin & Tutty, 2008; Orhan, 2007).

Faculty-Oriented Studies
Faculty assessment of student self efficacy among face to face and online learning courses—controlling, as in the previous case, for consistency of all factors except for the type of course taught—would allow a comparison and contrast with this study. The study could be conducted across several departments initially and later several colleges to determine if faculty believe certain blended learning course types (vocational or liberal arts) increase or decrease self efficacy among students. Self efficacy surveys (Artino & Stephens, 2006; Aykol, Garrison, Ozden, 2009; Danaher, Danaher, & Moriarty, 2007; DeWitz, Woolsey & Walsh, 2009; Magno, 2011; Mattern & Shaw, 2010; Pintrich, Smith, Garcia, & McKeachie, from Mitiadou, 2000; Schwarzer & Jerusalem, 1995) would be modified to reflect faculty perception of student self efficacy. The use of surveys would allow a quantitative comparison of how faculty members perceive self efficacy based on the type of course the student is taking (Fraenkel & Wallen, 2009; Kitsantas, 2013; Owston, York & Finkel, 2013).

The differences in perception of definitions such as self efficacy and blended learning could also generate new areas of research. This study could be idiographic and explore faculty’s definitions of blended learning and self efficacy. A set of questions would be generated to determine how blended learning differed from other types of learning. The results gathered would be compared to a commonly accepted general definition, such as the one used for this thesis (Watson, 2008). Likewise, one could do a comparable study on self efficacy in order to arrive at a perceptual mean, using Bandura’s definition as a starting point to develop a working definition of self efficacy (Bandura, 2011). The comparisons would be qualitative using interpretative phenomenological analysis as there would be no way of quantifying how close one definition is to another (Smith, Flowers & Larkin, 2009).
Revisiting the faculty studied or other community college faculty in a few years and comparing these results to community colleges in different communities might be worthwhile to see if similar patterns of student behavior in blended learning were commonly observed by faculty (Owston, York & Finkel, 2013). The study would consist of a questionnaire which would be subject to IPA analysis across different schools (Smith, Flowers & Larkin, 2009). The study would use the same questionnaire across different schools. Data would be organized by theme and discussed around each theme comparing several schools at a time (Fraenkel & Wallen, 2009; Smith, Flowers, & Larkin, 2009).

Finally, some faculty involved in the research presented here indicated high levels of class involvement; others only described themselves as guides (Dede, 2002; 2007). Teachers who profess a different, less engaged type of faculty involvement might produce a contrast to those interviewed in this study. This further area of study would define what factors constituted a high level of faculty involvement, and which constituted faculty as having low levels of student support or involvement. The level of faculty involvement and student and faculty assessment of self efficacy could be quantified using a forced response questionnaire (Fraenkel and Wallen, 2009), allowing a quantitative analysis as to whether faculty involvement affected student self efficacy.

Faculty in high schools, four year college programs, graduate schools, or in trade/technical schools with blended learning programs should also be studied in a similar fashion, to determine whether self efficacy increases or decreases in blended learning environment in different types of educational settings (Yin, 2008). These educational institutions have varying
degrees of student educational commitment, meaning that secondary students often must be in school, and students at higher levels of education (four year college and post graduate students) or in trade schools may possess different levels of motivation to succeed than students in a community college (Amira and Jelas, 2010; Rendon, 2005). The study could be constructed to assess faculty appraisal of student self efficacy in these other institutions, comparing student self efficacy across different school types using interpretative phenomenological assessment (Smith, Flowers, & Larkin, 2009) for a qualitative assessment as to whether blended learning, in faculty’s view, increased student self efficacy in these other institutions.

Conclusion

The study provided some the following observations. The first was that blended learning required a more active approach to learning from both the student and the faculty perspective (Dede, 2007; 2009; 2011). While it is true that the students were supposed to take a more active role in their learning, it also required faculty to be more active teachers. Faculty would need to respond more quickly online, provide more materials to make the coursework more interesting, and provide more support to students through posting online materials, obscuring the lines, in some courses, between face to face and online learning. This may be one reason the CIS instructor found blended learning to be of little value, as the coursework had been taught in an online format for a few years. There may have been few ways to modify the curriculum to effectively deliver the coursework in a blended learning format. However, the four professors who enjoyed the blended environment did seem to find students were more creative and more
self efficacious than before (Bandura, 2011). The analysis here is the possible correlation between the interest of the faculty in blended learning and self efficacy.

There has been a fashion in online learning to stress the faculty’s role changing from “sage on the stage” to “guide on the side” (Dede, 2007; 2009; 2011). Based on this study, this oversimplifies the changes that blended learning has and could produce for students. In many ways, blended learning could be seen as a continuation of the traditional role of faculty as student motivator into how to challenge, engage, and encourage the student by allowing the student to deviate from the prescribed material into areas that are even more advanced and challenging as was reported by the Phlebotomy, Massage, and History teachers. The faculty role has not been delegated to the side. It is now up and front, with the faculty learning and entertaining new knowledge with the student. Blended courses are more work for both parties, but still stress the need for skilled teaching to make these courses successful (Public Impact, 2013). If blended learning becomes more prevalent at the high school level of education, this perception of difficulty may change (Becker & Gable, 2010).

Some students did demonstrate improved self efficacy and motivation. The blended class showed radical improvement among isolated students, but this was limited. Overall class results, were, to quote a participant, “an inverted bell curve—low activity, low grades at one end, most of the class trying to get by, and high activity, high achievement on the far end (History, 2013)”. However, this approach to education is still new, and faculty and student perception of its potential and applications are still developing. Also, as Bandura has stressed (2001), self efficacy is not necessarily a solitary process, nor is it necessarily performed to create or support individualism.
People do not live their lives autonomously. Many of the things they seek are available only through socially interdependent effort. Hence, they have to pool their knowledge skills and resources, provide mutual support, form alliances, and work together to secure what they cannot accomplish on their own (Bandura, 2002).

Thus, blended learning still infers a partnership between the student and learner to provide students ways to master curricular materials and perhaps, even master ways to learn more effectively or develop learning strategies that the student is confident will lead to success. Collaborative models of learning in which the faculty is an active participant are not detrimental to self efficacy and may, in fact, enhance it as students realize they will be able to reflect on their learning with support from faculty (Schulze, 2014). As research develops around both blended learning and self efficacy, faculty perception about blended learning may crystallize, resulting in more imaginative, enthusiastic applications of blended learning consistent with the goal of increasing self efficacy among students.

**Epilogue**

One of the more important observations from this study was the emphasis faculty placed on engagement with the students. A recurring theme was that students seemed to do better when faculty and students were both engaged in the learning process.

This is not a new revelation. It is encapsulated in the theories of Bandura (Bandura, 2011), Dede (Dede, 2007; 2009; 2011), and many other researchers (Becker & Gable, 2009; Coogan, 2009; Murphy & Rodriguez-Manzanares, 2009; Popov, 2009; Zawacki-Richter, 2009). But with the rush to blended learning and its anticipated growth because of student convenience, it is essential to keep one’s focus grounded on a basic principle of education—
engaging and exciting the student. That engagement and excitement needs to be encouraged by engaged and excited faculty, who are still the primary delivery agents of education, regardless of any new learning delivery methods in use (Cronenweth, 2013; Horn & Staker, 2013).

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Appendix 2
Interview Transcription

**IRB Attachment**

**Questions to be asked participants:**

**Questions**

To examine the perceptions of faculty to be explored in this study, the following data and questions, based on the theories of Bandura (2011) have been selected for faculty reflection:

*Data about the interviewee’s experience*

5. How many blended classes have you taught? On line classes? Traditional classes?

6. What do you teach?

7. How long have you been teaching?

8. Have you always taught at this college?

*In-Depth Questions:*

18. When did you begin teaching blended learning classes?

   Interviewee 1:

19. What is your definition of a blended class?
20. Identify what you consider advantages/disadvantages to blended learning as compared to face to face learning.

21. What do your students need to know and be able to do that is different between blended and face to face learning?

22. How do you think students perceive these differences?

23. Describe how your students spend their time on a class that is blended and a class that is face to face learning.

24. Describe any differences in the ways your students approach a class that is blended and a class that is face to face learning?

25. Have your students ever described differences between blended and face to face to you either during or at the conclusion of the class, and if so, what did they describe?

26. Describe how your students form learning groups in blended learning. Is there any difference between this process and how they form groups in face-to-face learning?

27. How do you think your students in blended learning fit into the college environment when compared to students in face to face classes?

28. Do students in blended classes seem to approach coursework with more self-assurance?
   a. engagement?
   b. and/or interest?
29. Do you think blended courses help students increase their motivation to succeed? How would you know this?

30. Do you think blended learning improved students' ability to persevere? If so, how?

31. What is your definition of self-efficacy?

32. Have you seen any changes in student self-efficacy as a result of their participating in blended learning courses?

33. Do you continue to teach face to face classes?

34. Is there anything you would like to add that I did not ask?

#1

Interview # 1 at YMCA Child Care and Early Education

Interviewer: The first question is how many blended classes have you taught?

Faculty: How many blended classes?

Interviewer: A little bit impersonal, but…
Faculty: So, I guess that leads to one of your other questions, what do I mean by blended, but a true blended/hybrid model, I have one class that I teach. And classes that I teach face to face and also use online… I have six classes that I teach that way.

Interviewer: Well, the textbook definition of blended is really a wide range. It is between 30 and 70 percent of the material is presented either format. It's really wide; it's indistinct. That is why we were asking you what you thought. And what courses do you teach?

Faculty: Early Childhood Education.

Interviewer: And how long have you been teaching?

Faculty: Since 2004.

Interviewer: Have you always taught at this college?

Faculty: No, I have taught at another college as well. Both colleges since 2004.

Interviewer: Was the other college a community college or was it…?

Faculty: No, it was a private college.

Interviewer: Did you find the experience different at a private college versus a community college?

Faculty: A little bit different. Same caliber of students, actually, the population I was teaching.

Interviewer: When did you start teaching blended learning?

Faculty: Blended learning was 2010.

Interviewer: What is your definition of a blended class?

Faculty: When I think of a blended class, I think of part of the instruction is done on line and part of it is done in class. In that case, there is one class that I do that very half and half. And then when I started thinking about blended though and what did that really mean, since 2010 I have supplemented all of my face to face classes with our e-learning system that we use. That way they have all their assignments there. I have web links there, videos, thinks like that. I also do power points in my class with embedded video and things like that so it allows me to pull it
right from there and they have it. They can go home and have the same thing I have in class.

Interviewer: So essentially everything you have, you teach in class you teach in class, they have access to it online.

Faculty: They have access to it online. In a face to face class, though, I don’t give them access to it until after the class. My personal power point and things like that they get it after class. If I need then to do something ahead of time, obviously I would give it to them.

Interviewer: So I don’t want to lead too much, but is there a cutoff where you distinguish between a face to face, blended and totally online class?

Faculty: Totally online, I don’t ever see them. In hybrid classes that I run right now, I see them once a month. The majority of really is online in terms of the other things we do. My notes part, everything is there. They are a bit more independent in terms of what they do, versus my face to face classes where I use the online as a supplement; so they get the bulk of it face to face.

Interviewer: Could you identify what you consider are the advantages and disadvantages of a blended class when compared with a face to face class?

Faculty: I think, with a blended class, the students have more access to information and they have that ahead of time and then after the fact as well. Whereas if I just did face to face and I did not have that use of it, I would just be relying on a textbook or something that is happening right then. A lot of times we do projects in the courses I teach, I need the students to have access to certain guidelines and state standards and things like that and with the blended method I am able to do that much easier.

Interviewer: And how about disadvantages because it sounded like you just spoke about the advantages…

Faculty: Disadvantages of just doing face to face without the supplemental online things are that the students don’t have the tools and things I need to have them right then and there. This way now with everyone having I-pads and laptops and things like that, they can access things while I’m in class and we all have access to it. And they have access in a small group, if I want them to do a small group project, they can get materials right then and there, so that part is an advantage in using it in face to face. If I didn’t have that it would be whatever I pass out for information, and that sort of stuff.
Interviewer: But what do you think would be the disadvantages of a blended class versus an in person class?

Faculty: The disadvantages I think of a blended class is that they have a tendency, if it is a true blended class, when I am really relying on them to go online and do things on their own some of the students don’t necessarily go online and do the things that they’re supposed to do, and it is a bit more of an independent class I think when it’s a blended half and half model, and some students just don’t do well with that. They need someone constantly reminding them and constantly right there, face to face keeping them accountable. Whereas, emails and things like that, they can easily ignore me.

Interviewer: I understand. What do your students need to know to be able to do that is different between blended and face to face learning? You have already described some of those for me already…

Faculty: They need to be able to access the information, to know how to use the technology that is out there. It’d be lovely if they knew how to do an attachment (laughter)…how to do just different things with the technology. Also how to navigate the course space itself, know where to find things, where to post things, if something is not working right to get in touch with me right away. They need to be able to manage their time would be nice too and not wait until the last minute when technology always fails in the last three minutes before the thing closes

Interviewer: Is that when people are trying to turn in their assignments….

Faculty: And the thing crashes. Yes… a lot of budgeting of their time and management. It is much more independent I think. Although I say it is much more independent, I feel like I send out more emails and things like that and just post within my online course. When I meet with my face to face with students, they come in Wednesday and I see them on Monday and it’s that kind of thing. But, it’s definitely the technology they need to know and, you know, technology and just having some self-initiative.

Interviewer: What kind of learning software do you use?

Faculty: We use e-learning.

Interviewer: How do you think students perceive the changes between blended and face to face learning?

Faculty: For some of them I think they don’t realize the amount of skill they need to have to operate the systems we are asking them to operate. I think the population of students
that I work with in particular, don’t tend to have technology skills in general, so it becomes very challenging for them. I think some of the students perceive the difference between the two courses as being more convenient in terms of the timing for them, and that’s why we offer them, in terms of that convenience, and for those students, they take it for the convenience whether they have the skills or they don’t have the skills. We find that out and try to support them as best we can.

Interviewer: Can you describe how students spend their time in class that is blended and one that is face to face or online?

Faculty: It’s similar for both. We have lecture, group projects, individual projects, video, presentations—lots and lots of presentations, both online and face to face.

Interviewer: So the expectations are the same?

Faculty: Oh, yeah, the expectations are exactly the same.

Interviewer: Can you explain any differences between the ways in which your students approach classes in blended versus face to face learning?

Faculty: Some of them are hesitant because of the technology feature of a blended class; they get nervous about that, and some of them like it and are ready for it so they are gung-ho because it can accommodate their schedule for them.

Interviewer: So, this is easier.

Faculty: I think so (laughter).

Interviewer: Have your students ever described differences between blended and face to face to you either at during or at the end of class and if so, what did they describe?

Faculty: Yes, so in a blended class they are typically forced to post responses, so they are often more vocal than they are in a face to face class is what I hear…and again it’s about their preferences so if they liked the independence and being able to pace themselves. And I have all my assignments posted ahead of that time and things of that nature so they can go ahead if they need to or kind of fluctuate if they need to, so they tend to like it; they tend to like that independence. Those who are not successful is due to the technology and the time management aspect and that’s what they say. They say I needed you to be there and to be in my face and say “Where’s your paper?” kind of thing.

Interviewer: So they don’t respond as well to the system?
Faculty: Those who do well, the things that I said were positive are the things they typically say. Those who don’t do well, it’s typically because of technology and time management issues say I needed to be face to face, I needed to be reminded, I needed to be accountable to you in person rather than online.

Interviewer: And why do you think that is?

Faculty: It might just be the style they are used to, or their learning style, or different things, because with blended, although they do see me from time to time, it's not as much and so if they are not organized, and task-oriented and making sure they schedule time for my online version, then they lose track and they lose points and things like that because they did not put in all the effort. They didn’t put things in on time and don’t get what they expected—that kind of stuff.

Interviewer: I understand. Describe how your students form learning groups in blended learning and is there any difference in how they form groups face to face?

Faculty: For learning groups in the blended learning, they will do things in class when I ask them to. Other than that, in most classes I don’t have them do group stuff. For one particular class I have them do group stuff, but it’s a challenge to get them all organized at the same time or posting to each other. They’re not a big fan of group stuff online, but in class they like it.

Interviewer: So they like to function better in a group in person?

Faculty: They like to function better in a group in class than online.

Interviewer: How do your students in a blended learning environment function in a college environment versus your students in a face to face class?

Faculty: I think they fit in just fine because they have that aspect of also coming to class in addition to online so they can put faces and names together and I’m not some mysterious person that emails them.

Interviewer: So they have a chance to meet you?

Faculty: In a blended class, yeah. And it depends on what we are talking about because if I use online materials to supplement my face to face class they get the best of both worlds. So they get that face to face, in your face all the time, and online they get their assignments, get immediate feedback or relatively immediate feedback waiting 48 hours versus waiting for a week.
Interviewer: So immediate gratification?

Faculty: Well, yeah. That’s what we all want nowadays, right? That’s my opinion…that’s what they want.

Interviewer: Do students in blended classes seem to approach coursework with more self assurance, engagement, and/or perseverance?

Faculty: I would like to say “yes” in some instances. There are some classes where we use the blended approach and because of the educational approach in which students start teaching each other working with each other educationally and they are posting things to each other and able to hear real life experiences and learn about resources, lesson plans, life experiences that they can use later on and they can think and provide each other with practical resources and that is something they really have to do. You want to cover everything and you can’t so these resources and experiences provide them with lessons they can go back to later on, and I think that is really important to them.

Interviewer: Do you think blended courses motivate students to succeed?

Faculty: I think they do…especially when they do assignments and tests and get feedback in a fairly quick manner. In most of my classes they do. That’s one of the reasons I started doing blended so I could provide feedback as it helps in lesson planning because I can look at their work and in lesson planning I can look over the work and review what was good about the first lesson they did, their strengths and what they needed to improve upon. Lots of times students will submit things early to me—I’ll look at them if I have time—and say you need to do this, this, and that. And lots of times this will help them feel better about themselves and their assignment and activity is that much better the next time.

Interviewer: So that’s how you think it increases engagement?

Faculty: Right!

Interviewer: Do you think blended learning helps a student’s ability to persevere? If so, how?

Faculty: I think it does, because, as I just said, I try to be very diligent in my work with the students and I try to give them feedback. The feedback is very specific, related to what they need to meet the objectives for that assignment, and is practical.

Interviewer: What is your definition of self efficacy?
Faculty: I think it is your belief in your ability to succeed. I was thinking about and it and what came to me is “Yes, you can do it!”

Interviewer: Have you seen any changes in student self efficacy as the result of participating in blended learning courses?

Faculty: Yes. Several students—just about all my students actually, especially students that are English language learners, because I am able to communicate with them the areas that they need to work on—we use a lot of newsletters and parent letters. And we work so they know how to change it for the next time. So, every time we do it, we take those things they need to work on that were explained to them individually, then as time goes on they don't need to rely on me so much. For every assignment they won’t come to me so much; they learn to proofread themselves and when they make some errors they can recognize them by themselves.

Interviewer: Do you continue to teach face to face classes?

Faculty: Yes.

Interviewer: Is there anything you would like to add that I did not ask?

Faculty: The only thing is, I think my definition of blended may not exactly fit your large definition of blended of 30 to 70 percent. I have one class that is a hybrid, but my other classes are totally online or face to face and are supplemented by videos and online. It is supplemented by videos but there are other things there, but I don’t list them as a hybrid class. So I don’t know if I meet your criteria for what it is you want.

Interviewer: Well, I think they could, because if we go back to the Sloan Consortium, it is 30 to 70 percent, of the instruction is provided online; I don’t recall the definition saying exclusively online, so how that is determined may be open to interpretation. I may go back to my adviser and get her interpretation of this for this study.

Faculty: OK, so basically, I have a hybrid, I teach it; I meet with group once a month. In my face to face, all the assignments have to be submitted online, but they have access to all the journals, they have access to…it’s all online, I get the feedback and they take the tests online, but I don’t provide the instruction online.

Interviewer: And I think the bottom line is instruction, so (garbled)...but do you consider it to be a blended class?

Faculty: I never used to do it. I only recently started adding that capability; it was there for years before I started. But when I was teaching blended and face to face, I thought I
could keep my notes online and my paper and it was so much easier to have one place to access everything from; and if a student lost a paper, I could tell them they could access it online, not to worry. For me it’s a place where they have resources. And the online grading was easier…that was a big selling point!

Interviewer: So it sounds like you have modified to your teaching approach?

Faculty: Yes.

Interviewer: And that online grade book was a big selling point (laughs).

Interviewer: Well thank you for agreeing to meet with me; I this was convenient as I live close by.

Faculty: Well, my husband was a little….but I said, he lives in New Bedford, I’m sure he won’t mind going to the Y(MCA)…

Interviewer: Well thank you.

Faculty: You’re welcome.

Interviewer: I am going to stop recording now….

Interview #2

Interviewer: You were saying you weren’t sure how many classes you have taught, but how many blended classes have you taught?

Faculty Member: So I probably have taught at least-I would say- 30 or more blended classes.

Interviewer: And how many on-line classes have you taught?

Faculty Member: On-Line-probably I would say-completely on-line---between 15 and 20.

Interviewer: And traditional classed?

Faculty Member: I taught for years, traditionally so over, well over 30 if not 35

Interviewer: And what type of subjects have you taught?

Faculty: I teach a variety of subjects in the health science division, so I taught classes for physical therapy, assisted students for many years, massage therapy topics, muscular skeletal anatomy and physiology, pathophysiology, and kinesiology
Interviewer: And how long have you been teaching?

Faculty: I have been teaching for approximately 19 years.

Interviewer: That’s a lot of experience.

Faculty: Yeah, I would actually have to look at the dates…I have been at a couple of different colleges.

Interviewer: Have you always taught at this college.

Faculty: I started at another college.

Interviewer: This is just my curiosity…where else did you teach?

Faculty: DATA SUPPRESSED.

Interviewer: I remember -----------; I taught at ------------ myself way back in the late ------. I taught business law. They didn't like me.

Faculty: I taught pathology.

Interviewer: The less said about my experience at ******* the better; but it was me not the college. When did you begin teaching blended classes?

Faculty: I started teaching blended classes about five years ago.

Interviewer: What is your definition of blended class?

Faculty: My definition of a blended class is combination of online coursework that the student does in an online environment or learning management system and also additionally does work face to face in a face to face environment and typically in my case it is some type of lab or clinic or some type of community event that meets the objectives of the on-line work.

Interviewer: Identify, if you would, what are the advantages or disadvantages of a blended learning environment?

Faculty: The advantages are definitely that students get ahead of the learning curve because they have more time to prepare for what I call active learning in the face to face environment, so when they are asked to learn something in the face to face environment they are hearing it for the second to third time versus now as opposed to hearing it for the first time so the real application of the online content and all the stuff
that involved in online learning gets put into real life play and I truly believe that is an advantage.

Interviewer: What are the disadvantages?

Faculty: What are the disadvantages? –The amount of time needed to become comfortable with online learning. We can’t just start the class on day one and expect them to know how to navigate and to do things maybe we take advantage of because we do them all the time. The other disadvantage is having them understand how the system should work, so theoretically they should be doing all this work prior to the face to face, rather than after. A lot of students wait until they come in and they meet you, and then they are already a week behind.

Interviewer: How do you compensate for this?

Faculty: What we did was we developed an online virtual orientation that has multi-purposes. And the orientation will navigate someone what a typical class is like, what they have to do, different things. And we give them to this as soon as they are accepted—it’s is a competitive program—so they have to be accepted. As soon as they are accepted they start this online training. Additionally, we offer academic success support service hours. We offer elearning training on line and face to face. We have a multitude of things we offer to them prior. Additionally our first classes are designed to help new college success. What I mean by that is some of the basic time management skills, that students sometimes struggle especially when you are managing what you are doing at home, which is even tougher I think. Our introduction to massage therapy, our introduction to any of our complementary health care programs makes them have to do some of those college success strategies, that is infused. Since the inception of that and the virtual orientation, we have seen much improved learning in the blended program.

Interviewer: You have answered a part of what do students need to know and be able to do that is different between blended and face to face learning, but could you address it some more?

Faculty: What they really need to learn about is the time management piece because sometimes it is not so much the content but managing how they do things. But they also need to know how take responsibility for learning. What I mean by that is is one thing to watch a powerpoint or to watch a video and say I did it it’s done and it’s another thing to watch the powerpoint or video and apply it to what they need to be learning and sometimes that takes a bit of time, especially for the new online one.
Interviewer: How do you think students perceive these differences between what they have to do between blended and face to face?

Faculty: I have a good five years’ experience teaching online learning and blended learning. I am still hearing a strong sense of students saying I just want to come to class; I just want to come face-to-face and be in the classroom. I don’t think students yet—I think it is coming—I don’t think they truly yet understand how the pedagogy can work in this type of environment. When they finish the program they a little bit of better sense of that, but certainly starting out, they just want to come in; they want to be face to face they want to see me face so that the transitions I think, is still a barrier.

Interviewer: Describe how your students spend their time in a class that is blended and a class that is face to face. Essentially you have already described it a bit of it already and I am paraphrasing so forgive me if this is not quite correct. So in a face to face they are passive seat time of class where they are receiving data—and I don’t mean that in a negative way-- and more active in a blended. So that is the basics-correct me if I am wrong. Is there anything else they see as different?

Faculty: I-you know, probably managing the technology can cause frustration for students. They want to submit something, they want to do something, they are navigating their way around, they get lost and they need help. Then you get the frustrated student now shuts off the computer because they couldn’t do it. And now they need extra help in do it. They perceive the face to face as I only have to give this amount of time and do my homework, so maybe they perceive it (blended) as more work.

Interviewer: Questions 6 and 7 sort of merge together. Describe how your students spend their time in class that is blended and face to face and describe how the students approach a class that is blended learning and face to face. For example, do they ask for more help? I

Faculty: Oh, all the time…

Interviewer: I think you did a good job of addressing the time…

Faculty: Right…

Interviewer: Do they think they can talk with you more in face to face or blended? (I apologize if I am leading here…)
Faculty: I believe that probably face to face students have more of my direct time. They don’t have to wait for me to answer an email. So I do think they feel they are attended to more. I’ve had to address that issue at the very beginning because I did not want the online students to not feel like they had that same attachment to me. I also felt I also had to be more available to them so that if they are in the middle of something and they really just need someone to help them sort something out they had someone they could call or text or whatever to help them through it. The blended students we have had to maybe make labs more available for them to come in and have people that actually are here because know, you it is a large lab piece here, there’s a lot of hands-on stuff. But I am learning a lot about how to run the online piece that makes them stronger. And I have learned a lot about use of discussion questions, the use of video, the use of the tools that, you know, sometimes they just watch a tool and are not really engaged in it. So I’ve started to change the way I have administered my online piece of a blended course umm to meet that need that I have seen the difference. Because I teach the same thing both ways I can compare, you know.

Interviewer: Sure, sure. So you mix and match based on the needs of the class. Do you find your online I mean blended learning classes and your face to face students that every class is a little different?

Faculty: They are always completely different. All you need is one strong person in your online class that can strike that energy through them all and all you need is one negative learner and then that spreads. So in trying to keep people happy and learning you truly act as a facilitator. Each time I do it I am learning more about better ways to do it. I just went to the Massachusetts College On-Line conference this week.

Interviewer: Oh, yes, I heard about that.

Faculty: As a matter of fact I got an award for a course I designed- I had had developed as a hybrid. And it’s such a great thing for me to go to because a) other people are in the same boat and b) seeing the new stuff that’s coming down the line is quite exciting for me.

Interviewer: We might come back to some of these questions at the end. Have your students ever described differences between blended and face to face either during or at the end of the class and if so, what did they describe?

Faculty: I have a lot of students who will be a little more honest with me when they are at the end of the class and when they are finished. And now

Interviewer: When they aren’t relying on the grade....
Faculty: Yes, they don’t want to impinge on that. And especially students who have taken online classes from different faculty. That’s another big one. In this class, I did so much in the class; in other classes the professors were hardly ever present in the online environment. Listening to students’ talk about that has given me tons of feedback on how to progress. Typically, they are frustrated they are not being responded to in a timely manner. We give them a week’s time to submit things: there is typically a deadline. If all the students aren’t engaged, it is hard to participate in something that requires group work if not everybody’s there. Typically I hear a lot of frustration with other students in the class, frustration with the group work, frustrations with the faculty not answering an email waiting 3 or 4 or 5 days to get a response to an email. They now have gotten so frustrated that the assignment is not done. Some what I call logistics that I think should be able to be fixed.

Interviewer: Explain the ways that your students form learning groups in blended learning. Is there any difference between this process and how they form groups in face to face learning?

Faculty: In this program, groups that are formed still meet face to face. I haven’t had good results with students working in the online environment in working as a group. You know, I did my graduate work in an online with people from all over the country so we were forced to figure out how to do it you know. I had someone from Egypt from all over the world so we really had to figure out how we were supposed to communicate especially with such large time differences. In here what I notice I give them a group project they immediately complain. It’s supposed to be done on line and I will see it on meeting and someone did not show up and so and so didn’t come and I’ll say this was supposed to be an online project—no one should have to show up at all. I haven’t had good luck—it’s too easy for them to get together. I don’t have a lot of long distance people, so in any learning group I have created—they cheat!

Interviewer: They don’t do the online…

Faculty: They do their own version of it and then try….i don't know…in my graduate…. 

Interviewer: Do they ever manufacture meetings? Fake meetings?

Faculty: Probably. I don't know (laughs). I don’t think they’re that I think they just get the work done… In my graduate degree program you weren’t supposed to talk with other groups on the phone that was discouraged…

Interviewer: Really?
Faculty: If we were in a group they did not want you and I talking and the other group members not participating. So it was a little bit ...and this was a while ago... different than it is now where you can SKYPE and there’s a million different ways you can be in the same room at the same time. But anyway...

Interviewer: How do you think your students fit in the college environment when compared to students in the face to face environment?

Faculty: I probably think they don’t have the same involvement in the school as the ones that are here more often. We’ve worked hard at not letting that happen because we have a big community learning component in our program and we have a functioning wellness clinic they actually have to work in. The online students are always invited to do everything we do in the face to face and the face to face invited online so we don’t distinguish a difference and we think that has helped the online students feel more connected. We realize other programs can’t do this but certainly in certificates and degrees such as this one, it is really important they have to build relationships with each other.

Interviewer: I understand, so they don’t have as much of an opportunity to do this in the blended class?

Faculty: Not if they... in a completely online class they are missing that piece...

Interviewer: But how about in the blended class?

Faculty: In the blended, because they still come in, I they definitely still get a good opportunity to participate in campus activities. We’re on a different campus, so we miss some of stuff that happens on our main campus.

Interviewer: I understand; I moved to New Bedford from Fall River.

Faculty: New Bedford is like another country to people who live in Fall River, so to say “Let’s go to an ice cream social in Fall River” I’d get “ahhh”. I would get a lot of moaning and groaning...

Interviewer: Especially if you have to drive for the ice cream...

Faculty: Got it.
Interviewer: Do students in blended classes seem to approach coursework with more self assurance, do you think?

Faculty: No, I think they’re more intimidated by the online…yeah, I haven’t gotten the confident learner yet. This is still a community college. Blended learning…I still have explain the difference between hybrid, blended, web-enhanced online learning. Students do not get it. They think online is easier; they think it’s quicker. The perception is still not understood, at least at this college.

Interviewer: How about engagement? Do they seem to be more engaged? Do students seem more engaged in a blended environment? I don’t want to lead the question.

Faculty: Engagement-wise, sometimes students in a face to face are quite quiet, they’re afraid to talk, whereas in a blended, they’re a little more confident, they have time to think of their answer, they can look it up, they can wait for other people to answer, so you hear from more students sometimes in the online environment. I thought that I found, in a face to face that I had to pull things out of people, whereas in the online environment, if you let it just happen over the week, eventually everyone speaks up, because they have to and its interesting you find that quiet, quiet person in your class that becomes very powerful online and I love that, you know, I love that— I love seeing that other side of students especially that the computer gives them some self confidence that they don’t have, especially the younger kids. They’re always texting, they’re always on the computer and then you put them face to face and they freak out on you.

Interviewer: How about interest? Do they seem to approach coursework with more interest?

Faculty: I think you pick the blended or online or face to face depending on their schedule. I don’t think they pick it because it’s the better choice, especially in this environment…so I think they are all very motivated and I think they all have equal determination. I just think the kids aren’t picking the online because it’s online. They’re picking it because they have a job and four kids and they can’t quit and they want to do it, so….

Interviewer: And I can certainly understand that. Do you think blended classes increase students’ incentive to succeed? If so, how would you know this?

Faculty: I don’t know. I don’t know if I see the blended courses…I think the blended courses require them to use the internet and the world more, so maybe that could facilitate more interest in say, research or—because if I force them to do research in the
blended environment, you know how it is, you go from one thing to another and next thing you know you are reading another, you know you are reading a bunch of things, I'll find that the online and blended kids will say “Hey, did you see that?” Hey did you read that?" “hey did you…?” so see that possibly that might increase their motivation cause when they see studies and research going on, it's exciting…so possibly. The face to face kids still do their research. But students that are on the computer more surf more without a doubt.

Interviewer: Do you think blended learning improves students' ability to persevere? If so, how?

Faculty: Oh I definitely think it probably increases their ability because they have to overcome more in the online environment--one hundred percent. And it increases their abilities to do other things that carry over to other parts of their life. Silly stuff, like attachments and emails and developing letters and you know things that they are always going to have to move forward. So I think it’s got to give them a really good sense of accomplishment and really give them a really good sense of other skills they can now do as they move forward. Not just, you know, I learned pathology.

Interviewer: So they learn some ancillary skills, not putting words in your mouth.

Faculty: I think, in a big way, yes.

Interviewer: What is your definition of self efficacy?

Faculty: Probably my definition of how efficient a person feels within themselves about how they can accomplish something.

Interviewer: Have you seen any changes in student self efficacy as a result of their participating in a blended learning course.

Faculty: Tremendously, tremendously. Because they learn how to learn in a different environment and then we apply it, so they get the best of both worlds. And I think this…I am looking at a picture of a little girl right she started this program had probably had very low self esteem, had very low communication skills and probably a very poor social life so on and so forth probably did not feel good about herself or feel like she could be of self worth or have self worth for anything and finished these two years. I am looking at her in this picture because she gave a speech at the end. Even when I met her online I thought to myself this little girl is going to be so unbelievably shy and we’re going to have a lot…
So I think that this blended environment is like a win-win situation especially for a student like that. Like it gives her a chance to be shy when she needs to be and then helps her get the confidence from the online stuff to then put it into play in real life. It’s almost like you get to rehearse.

Interviewer: It’s almost like trying something in a beta format, to use computer language.

Faculty: Yeah, in a way, when you think about it, they do get that ability. Especially if they are in a class with a really encouraging facilitator, faculty or professor that makes them feel what they have to say is worth, that you’re appreciative of it. You build them that way you know what I mean versus just the concrete “Yes”, “No” that’s not the answer, black and white answers.

Interviewer: Do you continue to teach face to face classes?

Faculty: Umm, I do. But pretty much we are almost a complete hybrid. We still do some traditional classes but they are totally web-enhanced; I’m not sure you could call them a face to face anymore. If you are so enhanced that you really are functioning as a hybrid at that point I think. I mean a few enhancements is one thing, but if the entire course is enhanced and anything they do face to face is on the computer, then I start to wonder if that should really be called a hybrid.

Interviewer: Is there anything you would like to add that I did not ask?

Faculty: Umm, not that I feel that I need to add. I am excited about where my programs have moved and the direction in the past five years. I don’t see us turning back—whether I like it or not—I don’t see us turning back and it changing. I think it’s actually going to change the way the future will be. I have a daughter that graduated high school last year and she went away to college this year. If the college did not have a learning management system, hybrid courses and online courses, she would have been quite disappointed.

Interviewer: Really?

Faculty: Well they are already doing this in high school, so when they are already doing it in high school they kind of expect it to continue. So if they started writing on the chalkboard, I think she would have been taking pictures of the chalkboard with her phone—these kids are pretty savvy. And I just see that as the way it’s going. I personally enjoy learning. So we do face to face, hybrid—we do a combination of it all, which is probably why ____ gave you my name.
I am trying to figure out how to compare them to say oh look, this cohort did better than this cohort because they were online whatever it is. We have been combining objectives with outcomes to see if the online students do perform better. Is there a difference? It is obviously hard to study, but I am always really watching that so I get a better sense of what is the best way for them to learn.

Interviewer: I think that is pretty much it.

Faculty: Excellent.

Interviewer: Thank you, _______.

#3 Interview # 3 (Done on SKYPE) (July 6, 2013)

Interviewer: How are you; it’s nice to see you!

Faculty: I am good thank you. I saw the doctor today and pretty much got a clean bill of health.

Interviewer: I’m very happy for you.

Faculty: Well, I pretty much wanted to hang on to that kidney, if at all possible. I realize I have two of them, but…

Interviewer: It’s always good to have a backup after all. I am just going to pull the questions out…

Faculty: OK.

Interviewer: And I am really going to ask directly from the questions.

Faculty: I have them opened up also.

Interview: And I have to say again, I really appreciate your doing this.

Faculty: Not at all.

**Interviewer: So the first question is: How many blended classes have you taught?**

Faculty: An estimate? I have been doing blended courses for seven years, about 10 courses a semester—I mean, year, so about 70 courses.
Interviewer: Wow, that’s quite a few. And how many online classes have you taught?

Faculty: I have been teaching online for twenty years, OK?

Interviewer: OK.

Faculty: For about the first five, there were maybe one or two. So ten. After that, when we went into the LMS, I did a minimum of eight an academic year, so do the math, 8 times 15, so maybe 125 online courses?

Interviewer: So you’ve had the requisite experience with all of them and that’s what I’m really looking for. And what course do you teach? What do you teach?

Faculty: I am American historian, so I teach American History to 1877, American History from 1877, American History through the Movies. I have taught Immigration and Ethnicity. I have taught the 1960’s, which is great fun, you know. I have taught courses on Modern East Asia, with a focus on China and Japan, and I am working on a course on Traditional East Asia, with a focus on China and Japan, so that’s kind of…oh, I also teach American Foreign Policy in the 20th Century. I have done a course on American Social History in the 20th Century, so…

Interviewer: You’ve kept yourself busy.

Faculty: Yeah…I don’t like to teach the same thing over and over again and I like to keep current, so…

Interviewer: How long have you been…you’ve told me this before, but for consistency’s sake…teaching?

Faculty: I have probably been teaching, if you take into account the adjunct years, for thirty-two years. I have been teaching full time at BCC for 25 years. I was a full time adjunct faculty at URI for two years, and then I went from there to BCC. So I have about thirty-five years teaching experience, maybe.

Interviewer: So you haven’t always been at this college, but you have for…

Faculty: A good chunk of time, yeah…

Interviewer: So you’ve provided the answer to question 4 already.

Faculty: Yes (laughs).
Interviewer: And, again, this is a little bit repetitive, but when did you begin teaching blended learning classes?

Faculty: 1992. My son brought home an Apple Power Mac 71 computer, and I got hooked. And so I began using...do you remember the old SPP files where you could reach out using GOFER?

Interviewer: I never used them, but I can share with you when I worked for the Fall River CETA program, we actually had a University of Illinois PLATO system, outstationed at BCC.

Faculty: OK. I started using materials and documents I could forward using that format. When did I really start using blended? I think it was about 1998, 1999 when the internet became more accessible with Internet Explorer 2E and the web crawlers. Do you remember the web crawlers? They'd crawl for information.

Interviewer: Sure.

Faculty: When I say that people go “What?” It’s kind of an early “Google”.

Interviewer: Sure.

Faculty: But it’s been awhile...So I have a lot of experience with this kind of stuff. I like to bring into the classroom the actual historical document and the best way to do that is through the internet. I am experimenting with smart phones in the classroom, poll everywhere, and doing a poll and having everybody answer it, you-I am just playing around with it now, to make it more active in the classroom.

Interviewer: You can do all that new polling system they have right now—it’s probably not that new, but everybody’s using it...

Faculty: Polling Everywhere?

Interviewer: Survey Monkey.

Faculty: Oh, Survey Monkey! Absolutely! Well, I use Survey Monkey for my online classes because student evaluations are never helpful, so what I do is about a third of the way into the class and do a survey of...what do they like, what do they think should be changed, what do they find most helpful, what do they find not helpful, not substantive questions but really involving them in a discussion about how they feel the material was delivered and I do it about a third of the way in so I get a sense of how effective it is.
Interviewer: What is your definition of a blended learning class?

Faculty: OK, What is my definition of a blended learning class? I thought about this when I read it, because I have just done it, I’ve never defined it. I think it has to involve active learning outside the classroom using technology to reach out to different places; I think the path has to be blended. You know, it’s not just about having them submit their work to me in a digital format. It’s about having them find the information, learn how to evaluate the information, One of the assignments I do with all my classes—blended, online, face to face—is I show them how to evaluate a web source, then I have them find a website and they would then have to do an evaluation of what material on that website would be suitable for college level work. And it teaches them all aspects of learning. It teaches them critical thinking, it teaches them information retrieval, it teaches them research skills—thing that they have to have, you know. So I don’t know if that’s the definition. They have to be able to get outside the immediate classroom material.

Interviewer: In most blended learning definitions—I’m going to go outside the set questions—they seem to have an in-person component. Do you…?

Faculty: Yes, but if you have a face to face component, we call it a hybrid class, and we meet once a week. Now April and I have been batting this around, because a hybrid class should have more than 50% of the content online. That percentage isn’t accurate with in regards to a blended class. In a blended class you are doing more than 50% of the class in a face to face structure. So I think that is a handy area of definition, at least where we work, okay?

Interviewer: Can you provide to me what you consider to be the advantages and disadvantages of blended learning versus face to face learning, and I mean exclusively face to face learning?

Faculty: I think the advantage to blended learning in relation to a face to face class is, that in a traditional face to face class, the students become what I call, “trash can” students. That is we step on their toes, we open their heads, put the knowledge in and it comes out their fingers. That is, there is no active engagement on the part of the students. I think the benefit of a blended class is that it requires them to be actively engaged in the course material.

Interviewer: So by trash can, you mean passive?

Faculty: Yes! Because I have had some student say they like the face to face better, and I say to them, no, you like it because you don’t have to take charge of your own
learning. In an online space in a blended space, they have to take charge of their learning, which they don’t like to do.

Interviewer: I understand. And what do you think would be the disadvantage of blended learning versus face to face?

Faculty: One of the disadvantages is with very shy people who have not developed the skills to be active learners themselves. Sometimes blended learning does not give them enough direction to take charge of their own learning. Do you understand what I am saying about that? Sometimes they will withdraw from a blended assignment. They may not believe they have the tools to do well.

Interviewer: So, to paraphrase, they may not have the initiative, or they may not have learned to take the initiative…

Faculty: (about 3 or 4 words indecipherable because of recording). Exactly…not being socialized enough, not feeling self confident enough to take on a blended assignment.

Interviewer: I think that’s good. Can you think of anything else?

Faculty: Yes. With community college, sometimes the level of technology the students bring into the classroom is not good enough to do the level of class we would like to do. They just don’t have the equipment, OK? Something else that might run up against it, there is a lot of work expected on the part of an instructor to teach a blended class properly, and when you are teaching five classes, there is not enough time to dedicate to properly design a good blended assignment or course. Okay?

Interviewer: That’s good. Thank you. What do students need to know and do differently to participate in a blended versus face to face learning? You’ve already touched on it a little bit.

Faculty: I can go back a little bit. What do I think they need to know? Well, first of all, they need to be able to use technology professionally. They can all text with these magical thumbs like God made little green apples. But they need to know how to use technology professionally. They all think because I’m a little long in tooth and grey in hair, I couldn’t possibly know more about technology than they do. I think that’s why I work to break the ice on that right away, you know, there are ways of using technology that have nothing to do with texting your friends, and you need to be socially erudite online. You need to understand that in a professional way, when you answer a question in a blended assignment, you answer in good English; you don’t text it to me unless I
have asked you to. I have used tweets, and have allowed them to be as creative as they have wanted to be, but make sure the English is proper.

So it makes them refine their thinking skills. I like using twitter in the classroom, actually, because they get frustrated, because it is challenging to have them give the answer in 140 characters without abbreviating and all of that, but it makes you think. What else would they need to know? I always explain, though I hate this phrase, the pedagogical reason behind what I am doing. Why am I doing this? Well, I am involving you in technology in a learning situation, because when you get out in the real world, regardless of your program, you are going to have to use technology efficiently and appropriately and professionally. So I take this as my first opportunity to sort of immerse you in doing it properly. What is the difference? Not a whole lot, truthfully. I have all my students submit their assignments digitally. I will go into a classroom where an instructor has been using the, oh hell, I even forgot what they are they called?

Interviewer: The Smart Boards?

Faculty: No. I love the Smart Boards. No I am talking about those things where you put the transparencies.

Interviewer: Overheads?

Faculty: Yes, the overheads. And I’ll think, what the hell are you using that for? Those are antiques? Use Smart Boards, use Power Point. We have to be careful with Power Point, because once everybody learned to use Power Point, that we over clubbed them with Power Point. I only use Power Point just to highlight points…that that’s not the whole story. Use it just to take notes off, but anyway, I don’t know if there is that much difference between a blended class and a face to face. There is a difference between the online class and the face to face.

Interviewer: Well, we’re going to stay away from that just because of the focus of the study. This is one thing my advisers have tried to get me to do, to stay focused on the blended classes. How do you think students perceive the differences between blended and online or, excuse me, between blended and face to face?

Faculty: It usually takes me about two weeks of socialization, because I think their initial response is resistance, because I am not just doing the stand and deliver the materials in a blended classroom. A lot of it is really active learning. A lot of it is breaking them into groups, then giving them a question they have to research on line and report back to the group. They feel like they are doing their job for me. It takes me two weeks to socialize them to the fact that they are going to learn a lot more this way then they
would in a face to face classroom and all you do is sit there like good little scribes and take it down. I joke that I could say that Thomas Jefferson was a fascist and they would just write it down without questioning me! After about two weeks, they will begin to ask what the purpose of this is, you know, how do you do this? They begin to get actively involved. And I break them into really small groups of two people, sometimes bigger groups, and then I make it my job to take the notes when they do this kind of research and then post it up online, so they’ve got a full set of notes on the work they have done in the classroom. Yeah.

Interviewer: This next question is going to be a little bit of a repeat of what you just said. Could you describe how your students spend their time in a blended classroom versus a face to face setting? Or could you add anything to that?

Faculty: When I (inaudible) sometimes, I not only blend it, but I flip it a little bit. Say they have a chapter on the colonial, the English colonial settlements in North America. Rather than delivering that information, I will break them into groups, have them develop the criteria for the regions, what made them interesting, where would they want to live. They are generally three groups—New England, the middle Atlantic, or the South. So I have three groups in the class going through this, developing criteria, have them develop questions they think they should be asked on a test, and tweet the questions for me. And I don’t do it all the times. Sometimes I say, OK guys, we’re going to talk about the historical background behind this issue. So I am going to do a lot of talking, but you are going to listen, because what I am going to ask you to give me, you know, the main three points, the point you carry away with you and again, I ask them to tweet it to me, and I like them to tweet it to me because I have everyone aggregate the tweets, and sign up for my newspaper, my tweet report, which has them all up there. So, it’s a study aid. Sometimes I have them right short paragraphs based on research. Sometime I have them take a topic like the Boston Massacre and have them do a web search on the Boston Massacre, then have them do a critical evaluation of one of the websites on the Boston Massacre and why it was such a critical issue in the American Revolution. It occurred in 1770; we don’t go to revolution for six more years. If it was that important, why weren’t we at revolution right away? So it gives them one of those teachable moments that sometimes you don’t get, because they sit there and they think about it or they misunderstand it, so you use this blended approach to help them elicit what they think they know, which is wrong, to get them to what they really know, which is really cool to me.

Interviewer: Gotcha.
Faculty: OK?

Interviewer: That’s fine. Could you describe any differences in the way that students approach a blended class and a class that is face to face?

Faculty: OK. I’ll break it down a couple of ways. In a class of thirty-five, you are looking at some students who are taking the class only because they have to. And when they look at the amount of work that’s required, that I require, they either withdraw formally or they just quit coming and hope to pull it out in the end with a C. You really end up with what I like to call an inverted bell. You have a number of students who just quit meeting because they just want to sit there, and not engage in the material at all. Then you have a small group in the middle—that would be your C student—who, for whatever reason, do not make many of the blended exercises for which they get grades, but they are smart enough to be able to pull a C or C+. And you have another group that is really engaged with the idea, and those are the B+ or A students. And it really is an inverted bell, because those who hang in there and really participate end up doing really well, and really end up liking history. That’s my other problem, by the way, because I have a lot of students who come in with the attitude “I really hate history” and I have to battle that as well.

Interviewer: I know what you mean. I was really a history junky when I was a kid, but I was really anomalous. I never quite figured that out because history is how things came together and I thought people would be interested in that.

Faculty: I think they hate it because of the way it’s taught. You know it’s a long, drawn out, dry recitation of dates and men and all you have to do is memorize it. And I always tell them I don’t care about the when and who—I’m interested in the how and why and what were the consequences. And it takes a while. You just have to socialize them to it.

Interviewer: Have your students ever described differences between blend and face to face…?

Faculty: No. They’ve complained about the amount of work in a blended classroom and I think that is a reflection of my trash can student thesis. They are not asked to engage in a traditional face to face, you know, so they complain. And I sympathize and understand. It’s the real world and I am happy to withdraw them and they can find another class, but I’m not changing. I have good reasons for doing what I’m doing.

Interviewer: Could you describe how your students form learning groups in a blended activity or a blended class?
Faculty: In a community college which is a commuter school, it is rare that they know each other. If I have people that clearly know each other, I’ll let them form a group themselves. Otherwise, I will form groups by having them number off.

Interviewer: And is there any difference between the way you do that in a blended and a face to face class?

Faculty: Yes…no! (Laughs). I just don’t do that as often as in a face to face class, because frankly, grouping falls on its face in a traditional face to face class. Once you get them socialized in a blended class that this is what we are going to be doing, then they are OK with it. They begin to engage in the material and the rest of it.

Interviewer: And do students in blended classes seem to approach classwork with more self confidence, I mean more self assurance? Excuse me.

Faculty: I will give you a military example: after they get through the wetting down period and what is expected of them, I am thinking my job is the same as it is with online; I’m a cheerleader about the first two weeks. “That’s great what you’re doing. You’re really getting the hang of it.” And they expect, they begin to know what I expect from them. And I think by mid-semester, my answer would be “yes”--they begin to exhibit more self confidence in being able to find the answer on their own.

Interviewer: Do they show more engagement, do you think? You touched on this earlier.

Faculty: Yes. Well I think the ones that stay do. One of the problems with a community college is that retention is not what it should be. But I find those who stay in both the blended and online (and I know I am not supposed to talk about it), the ones that hang in there are really engaged in what they are doing, even those who quote “hate history” even as most of them say in the beginning.

Interviewer: Now you piqued my curiosity. Why do you think you’re not supposed to talk about it?

Faculty: Well, you told me I wasn’t supposed to go to my online…

Interviewer: Oh no! I apologize. You can talk about your online classes…

Faculty: I do think there is a similar sense of confidence and engagement that evolves in both the blended and online classes.
Interviewer: And how about interest? Do you think interest is increased or is affected if you are in a blended classroom?

Faculty: Uh, you know. Yes and no. It depends on the topics. Sometimes students will come in with some resistance if they think it’s the same old same old, but if you can introduce something new to them. For example, I have a question in which I ask them to work out a play basically. I make them think about the American Revolution differently—about the fact that not everybody wanted it and sort out the different regions and personalities and come up with character sketches and they like that. Whether a southern plantation owner with close ties to the English factory system wants a revolution. Questions like that. You make them think about it differently because they have heard about it so much. Or if you put it in the context of their environment. What would you do? I have a sort of an assignment that asks them if they could change one thing in history and to follow the consequences. What if George Washington would have been captured at the Battle of Brooklyn Heights, what would have happened? You know, things like that. So I think they find the blended approach different.

I use a book called After the Fact, which practices the art of historical detection, and the kids, they just love it. I use that in the classroom a great deal for sending them off on web searches and stuff like that, because it illustrates how history is done, that it’s not just a collection of dry, dusty facts; it shows how historians gather evidence and frame a picture of the past based on that evidence. And its shows them how perception is key...anyway.

Interviewer: Do you thing blended learning increases student’s motivation to succeed and how would you know this?

Faculty: Ohhh (sighs)...that’s a hard one because I have chased some of the students who have quit coming to class because they find it too much work and I’ve spent hours online with them online talking with them trying to show them how to do it. I’ve met with them in physical office hours and I almost think that if the motivation isn’t there to begin with, I can’t put it in. I’m a parent and I believe in the fact we are who we are and our parents can make our good better and if they’re awful parents, they can make our bad worse. So as a teacher, I think that way, that if we can strike that spark of motivation, it’s going to grow, but I’m not sure. I think the blended classroom might help because .... Okay, you asked me a way back for the definition. I see the blended classroom as a shared journey, with me as the guide on the side and the student doing the work. So, because I’m more integrated into how the material is understood, I think that they get more of a motivation from the fact that I have to be engaged in a blended classroom.
That’s the one thing you have not asked me and I think that is what makes the difference—the instructor has to be engaged in the blended classroom.

Interviewer: Do you think that blended learning improves a student’s ability to persevere and, if so, how?

Faculty: Yes. If they hang in there they hang in there. I don’t know any other way to say it. They see the results from their work in a blended classroom a little quicker, I think. It’s harder on an instructor, because you have a lot more work to do. You’ve got a lot more evaluation to do and assessment. But I’m a firm believer that education and assessment go hand in hand, and if they don’t get that feedback, they aren’t going to persevere, because they won’t see any purpose to it. Okay.

Interviewer: What is your definition of self efficacy?

Faculty: HAH! Ha Ha… What is my definition? You mean when a student takes responsibility…oh, here come my little one, my little critter. We just adopted a puppy for rescue. He just climbed the stairs. He was wondering where I was aI guess….by self efficacy, do you mean a student is self-motivated in the class?

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Interviewer: That’s fine. Do you continue to teach face to face classes as well?

Faculty: Um, yes. But in the last year, I haven’t, because I’ve had so many other responsibilities that I have gone to a hybrid class that only met once a week, and most of the work is done online.

Interviewer: And is there anything you would like to add that I did not ask. You added something I did not ask before, which is fine, but I was saving the best part for the end.

Faculty: (Laughs)…Ummm. I think you’ve drilled pretty deep. I think the hardest part of the blended learning class is that it’s not taught at the K-12 levels, and they come to us not socialized to be active learners, and a part of the difficulty is having to spend the time socializing, getting them to realize that they have to be involved, that it’s a journey that they have to go on. That’s been in the way. But anyway…I hope that helps. If you need to contact me again, feel free to do so.

Interviewer: I think that’ll be fine. It’s possible I may have some follow up, but more, I am going to ask you to look over this. I am going to transcribe this. The more interviews I do the less ambitious my timelines for getting the transcripts done is less and less ambitious. Also, because I am a little leery of the technology, I am hoping one of the
methods I chose to record this will capture everything, but I may need more input from you than from other folks, mainly because we are doing this on SKYPE.

Faculty: That’s fine. What is your degree program?

Interviewer: I am going for an Ed. D. program at Northeastern University and actually it is a blended Ed.D. My concentrations in education leadership in higher education. And the theme of my thesis is whether blended learning can increase self efficacy. I had told you before, I had wanted to see if blended learning could increase persistence, but it got chopped down, which is what they do in the dissertation process.

Faculty: Thank you for sharing that with me. I think persistence is tied to socialization. At this school you get a mixed bag—some students have GED’s and some come from some pretty decent public and private schools, but they don’t have a concept of what learning really is.

Interviewer: I think that Is part and parcel of the area this school serves

Faculty: Yes.

Interviewer: I have lived in this area my entire life and the value of education is not really…

Faculty: Yeah, but I have seen some really amazing things. Some of my students have gone on to get advanced degrees from Brown, Wellesley and they are just diamonds in the rough. My daughter teaches exclusively graduate students at University of Colorado and she has some of the same issues I have.

Interviewer: Well, one of the things that fascinated me about retention issues is that the rate of retention has not changed that much since the 1960’s. There is a huge industry around it.

Faculty: There is. Well you let me know if you need anything else, and I will review the transcript. It’s been a pleasure.

Interviewer: Thank you.

Transcript #4:

Interview # 4

Interviewer: The first question is how many blended classes have you taught? Online classes? Face to face classes?
Faculty: Are you referring to how many specific classes have I taught or how many classes I teach? I teach four different classes right now.

Interviewer: I guess the question is based around how many individual classes do you teach right now?

Faculty: Four.

Interviewer: Four. And over the years, how many classes have you taught?

Faculty: I can't even guess. Every semester I teach three online classes and in the summer I teach two. So 3, 6, 8 a year, and I have been teaching at the online college for at least ten years.

Interviewer: How many of those are blended classes?

Faculty: I actually teach what we call student option classes. I taught one hybrid class once, and I actually didn’t think it went that well, so I teach totally online or what we call at (Name of college) student option classes. What we mean by that is the student can take the class online, but the student can take it face to face or online.

Interviewer: Can they mix it up?

Faculty: Yes. The student can start the class online and finish up face to face, if they start online and say they think it is not exactly working or they can start face to face and finish online if they can’t make the face to face because of their job they suddenly decide they can’t make it to class, they can move over to the online class.

Interviewer: So can any of your classes be considered specifically blended?

Faculty: No. I don’t offer that as a formal option. If a student is taking a face to face class and the student suddenly says I can’t make it because of work or because of some other option, depending on the student and how they have performed up to that date, I give them the option of finishing online, but it’s not a standard option for all my classes.

Interviewer: You will forgive me for using this term, but it sounds like these are “convertible” classes, from face to face to online…

Faculty: From face to face to online (simultaneously said with interviewer)

Interviewer: So which of your classes do you offer this option in?
Faculty: I offer that option in CIS 131, which is a Windows Server Administration class and in CIS 106, which is a Scripting class; an operating systems scripting class.

Interviewer: You’ve already told me what you teach, but I am kind of linear about the interview sequence, so could you tell me what you teach again?

Faculty: What overall classes I teach? I teach operating systems classes, OK?

Interviewer: So, computer operating systems classes?

Faculty: Yes.

Interviewer: So, how long have you been teaching do you know?

Faculty: Twenty-eight (28) years.

Interviewer: Have you always taught at the school where you are currently teaching?

Faculty: Yes.

Interviewer: And you will sometimes see me modify the questions somewhat while retaining the meaning. Those were the questions about your background. Now we are going to do the more in-depth questions.

When did you start teaching in the blended format? You said you had one blended class which you thought had not gone well, but how long have you been teaching the convertible classes?

Faculty: I am not sure about the blended class you mentioned.

Interviewer: Well you mentioned one class you taught as a hybrid…

Faculty: Oh yes, well. That particular class we had always taught as an online class, and we decided to try it as a blended class in which the students came to class every Friday and half the students did not show up. I did not find that to be a particularly good use of my time. That could have gone better. I would have thought students would have wanted the opportunity to me with me to go over the material and learn it better. I didn’t plan on being there to lecture; I had just kind of planned to be there to be available to explain the materials better, in case they had questions and some students just felt that the email communications we had sufficed rather than face to face. The other format is the totally online. How long have I been teaching that? I want to say…about 15 years?

Interviewer: And how about the option classes? The option of starting online.
Faculty: That’s essentially how I started. We call them student option classes. The student had the option of taking classes I had taught face to face in an online format, then I brought the classes totally online.

Interviewer: So the student option classes started around 15 years ago?

Faculty: What year would that be?


Faculty: No. It would not have been that long ago. It started in 2003, so maybe ten years ago.

Interviewer: Okay. About ten years. What is your definition of a blended class?

Faculty: I guess what my definition of a blended class—I am thinking of it in terms of what the college refers to as a hybrid class—is a case in which a student has so many classes have a face to face requirement and the rest online. So, in a hybrid class, they might meet two hours a week face to face and perhaps one hour a week online. Or maybe they would meet five times a semester. But that was the faculty member’s or professor’s choice on how frequently the students had to come to class.

Interviewer: Could you tell me what you would consider the advantages of blended learning when compared to face to face learning?

Faculty: I think that in regards to students, especially today with student moms and jobs, obviously it is the ability to complete a degree without having to commit to specific hours of the day. So it gives them the flexibility to complete their coursework in the middle of the night if they so choose, based on their family and job needs.

Interviewer: And disadvantages?

Interviewer: So, it strikes me, and forgive me if I am being too presumptive, it sounds like you have to have a certain amount of self discipline or executive skills and that comes from some kind of …

Faculty: Well, some students are not disciplined and have to be disciplined to finish their coursework (background noise obscures part of this). Some students are not disciplined and that’s one reason I stopped offering some of my intro courses that I used to offer as student option format as students would learn all the coursework in the student option format, and then stop coming—they thought it gave them license to stop coming. So I
stopped offering that format—you either opt to take it online upfront or you opt to take it face to face.

maturity level.

Faculty: Yes.

Interviewer: What do your students need to know and do that is different between blended and face to face learning? I think we spoke about that already, but in your words, what do you think your students need to know and do that is different between blended and face to face learning?

Faculty: Well, I think if they just read the directions and instructions on the site, that is needed. And they need discipline—I think I have said that already. Usually, when they take time to read through the materials and use the resources I have provided, they can get through the class. Students usually try to take shortcuts by skimming it, and by jumping to the homework, then they struggle with the homework because they have not read all the required materials, even though it is time consuming, they try to skip that, whereas, in a face to face, they can't skip it because they are listening to me in the lecture.

Interviewer: And how do you think students perceive the differences. You said it seems like they are giving themselves passes not to show up…

Faculty: Yes, well, I think that blended…

Interviewer: Forgive me if I am putting words in your mouth…

Faculty: Well, I think the term blended…

Interviewer: You can use hybrid…

Faculty: Well, I don’t really do hybrid; I do student option. Student option is not really blended because I am always there. And I stopped doing the student option class for intro courses, because I found that students right out of high school would go…well I will make the class online this week then next week I will be in class, as opposed to typically students will choose to take it totally online or totally face to face and make the choice to switch over, rather than one week face to face and one week online.

Interviewer: All right, all right…do you allow that option or is that option not allowed?
Faculty: When we offer a class at the college, it is actually a stipulation of the class, so we offer the class as a totally online class or totally face to face class, a student option class, or a hybrid class. We only have four options in which a course might be offered. The student option class means the faculty has made that choice up front that the student has the option of taking the course totally online or face to face, so I offer my classes in that format, but not all of my classes.

Interviewer: But there is some switch-ability in student option classes because you told me students can sometimes switch from face to face to online because of scheduling issues. Can they switch back again when the scheduling issue is resolved?

Faculty: Yes; as I said, if the class is officially offered as a student option course, then that possibility is built into the class, but if it is not offered as a student option class, then that is my decision, and that really depends on the student.

Interviewer: I understand. It had sounded to me like once you had made your choice, you were married to your choice—well, nowadays, you can always get divorced from your choice—but it sounds like you can modify your choice within a certain amount of reason.

Faculty: Yes. I really think though that even though student option is literally identified or tagged as an option, I think that our department is really the only one that identifies it as an option in the school.

Interviewer: This is interesting because I will need to talk with my adviser about this, student option really sounds like a variation on a blended learning course. I will need to talk with my advisor about this, because, just to give you some background on this, they try to make us focus on one area. I think you have already described how your students spend time in your classes—in blended classes and face to face. Would you say you have already?

Faculty: Yes. I would say I have.

Interviewer: Could you describe any differences in the way students approach classes that are blended versus a class that is face to face?

Faculty: In an online class—and as I said, I would prefer to refer to it as an online class—I provide very specific instructions in regards to how they should proceed in week one, how they should proceed in week 2—and what materials they need to complete the classes in a particular week, whereas in a face to face, obviously, they are
coming to class week to week, they are listening to my lecture and I am telling them what to do before the next class.

Interviewer: So, they can ask you questions, but—not to put words in your mouth—they have to be more self-directed in the online class.

Interviewer: Well, they can always email me questions, just as the face to face students can. During the regular semester, they always have the option of coming by my office during office hours. I don’t have office hours in the summer, but during the regular school year I am available for all my students during office hours.

Interviewer: Okay, okay. In a blended or online class, do you ever send out questions if a student seems to be getting an assignment totally wrong?

Faculty: I always allow one resubmission, so if they get the assignment totally wrong, I point them in the direction; I don’t give them the right answers. And I allow them to resubmit it. And once they resubmit once, they can’t resubmit it again at that point. Then, I will give them the right answers and tell them what they need to work on before they move onto the next chapter.

Interviewer: Do students describe differences between blended and face to face learning to you, and, if so, what do they describe? What do they usually say are the differences?

Faculty: Well, if a student takes a course face to face they are not taking it online, so I am not sure I really understand the question.

Interviewer: Well, I am not necessarily talking about the same student; I am discussing your students as a whole.

Faculty: Well, students who take face to face maybe know they are not disciplined and they want to take the lecture. And they don’t want to take the lecture and read through the materials and do all the outlines, but to say that any one of them has made any comments, it would more likely be from the face to face student unless one of the online students went out of their way to email me. Students who have taken on online class have wanted to know if I were teaching more subjects because they liked the format I used. Sometimes in a face to face class, I may get a student who is obviously very knowledgeable on the subject and I will ask them if they are bored by this class and I say would you rather take this online? And they say, “Nah, I don’t like the online format; I’d rather take it face to face.” I don’t know if I answered your question…
Interviewer: You did, you did. Basically the question was about feedback, so I think you answered it. Describe how your students form learning groups in blended learning. Do your students ever form learning groups or is it all individual?

Faculty: All individual.

Interviewer: Do you know if they form study groups outside of class?

Faculty: I teach a career program, so, by the time they finish the program, they will have six or seven classes with me, okay? They’ve taken a bunch of other classes with other teachers, but together, so they form a little family, if you will. So, it depends on the group. Some years I will have students knock on my door and say we have a study group on Friday afternoons. Would you stop by? And other semesters I try to get them to start something in that vein. But those are the face to face students. If the face to face students are doing it, I am not aware of it.

Interviewer: How do you think your students in blended learning blend into the college environment, compared to the face to face students?

Faculty: I think that in my experience a lot of the students that are taking online classes are also taking face to face classes, so they are involved with…I don’t know. In a community college sometimes it’s tough for students to be involved in college life because they have jobs and families and they don’t really have time to hang around campus…

Interviewer: It’s a commuter college…

Faculty: Right, so for the most part, those students that I know are taking both are still involved with and fit into the college environment. But then I have some students who are totally online, like I have one student who is an at-home dad and who told me I can’t take face to face classes until my kids go off to school and that won’t be for another two years. What courses can I take online? And that’s their objective is to take whatever courses they can online before they actually set foot on campus. So, it’s different for everyone; different needs for different students.

Interviewer: Do students in blended courses show more self assurance?

Faculty: Now, I think that’s a hard one. I think it’s really funny because it really depends on the students. I have some semesters where my online students are totally one hundred percent. Everyone’s on time; everyone’s getting good grades and my face to face students are all flunking! And the next semester it’s the opposite, so I really think it
depends on the student’s self discipline, whether they are in an online class or in a face to face class.

Interviewer: And do you think students in blended or online show more engagement than those in face to face classes?

Faculty: I am not sure what you mean. Do you mean engaged in the content?

Interviewer: In the classwork.

Faculty: I really think it depends on the individual student, not the modality; it really depends on the student.

Interviewer: Would you say the same thing about student interest?

Faculty: In my classes, I teach career, so all the things they take in my classes, they take because it is their program of choice. So it’s not like they are taking history because they have to take history; that’s what they hope to get a job in, so I think that the student interest is there; that’s their program of choice, unless in the intro classes they find out that this is really not what I’m interested in or what I am designed for, but usually the level of interest is already there. At least, that’s what I’ve found.

Interviewer: So it is really the level of interest and not the modality…

Faculty: Yeah.

Interviewer: Do you think blended learning helps a student’s motivation to succeed and, if so, how would you know this?

Faculty: I have no clue on that one because, like I said…I’m sure for some, it would increase their motivation, because if they have that option, like that example I gave earlier of the person who has kids but can’t afford a baby sitter, it gives him the ability to take that option. I don’t really have a better answer than that.

Interviewer: Do you think blended learning increases a student’s ability to persevere and, if so, how?

Faculty: I don’t think it’s the modality. I really think it’s the student—at least it is in the classes that I teach. I think if I go back statistically, to the grades of students in classes I have taught face to face and online—and I have done this—they fluctuate. One semester online is up, the other semester face to face is up. One thing I’ve found is the fall semester students in the intermediate classes tend to be stronger than the spring
semester students. Is is because they are just starting and they’re gung ho. Is it because they are fresh students? I really don’t know. But I can’t say whether it is because it is online or face to face (Note: This is an approximation of what I think was said. This sentence was difficult to transcribe accurately; background noise was high and either the recorder was accidentally covered or the volume of the speaker’s voice lowered.)

Interviewer: What is your definition of self efficacy?

Faculty: Can you define that for me? (Laughs) I have to look up the definition of that! (laughs)

Interviewer: I think I am looking for your definition.

Faculty: Well, I would need to know what the word means. I really don’t know the definition of that!

Interviewer: Well, self efficacy is the belief or sense that you can do things. And I would like to know if you have seen any changes in student’s self efficacy through blended learning.

Faculty: OK, so self efficacy is the belief you can do things. I think that’s a hard one. I think one of the classes I have taught where I could say “yes” to that is, in one of the classes I teach. It is a class that is offered solely online and the students can’t take face to face, and it is an Introduction to Computers for Health Majors, so it is not a course where students have chosen computers as their field of study, but they are forced to take the course. And I do see those students in my office often as they are having problems, and those students often say they would never be able to do this, but they do realize they are able to do this, so those students I would think, would definitely see an increase in what they can do versus what they thought they could do.

Interviewer: Just for background, the roots of self efficacy go back to the late 19th century, but are most often associated with a social psychologist named Albert Bandura. So for the class you mentioned you saw an improvement?

Faculty: Yes.

Interviewer: Is there anything you would like to add that I did not mention?

Faculty: No; I don’t think so. I can’t think of anything right now anyway.
Interviewer: Well, I will transcribe this and send it to you for review, and if you have something to add, you can add it. When I get it back from you or get your comments, I will analyze this along with the other interviews.

Faculty: OK.

#5

Interview # 5

Interviewer: So we are recording now…How many blended classes have you taught overall? Online classes? Face to face classes?

Faculty: 12-15

Interviewer: Online classes?

Faculty: None.

Interviewer: Face to face classes?

Faculty: (Pause)...thinking, sorry...probably about 72.

Interviewer: What subjects do you teach?

Faculty: Communication courses; Fundamentals of Public Speaking; Intercultural Communication; Interpersonal Communication; and Human Communication.

Interviewer: How long have you been teaching?

Faculty: Going on thirteen years…

Interviewer: Have you always taught at this community college?

Faculty: No, I have also taught at …College.

Interviewer: When did you begin teaching blended learning classes?

Faculty: Six years ago.

Interviewer: And what is your definition of a blended class, or in this community college’s case, a hybrid class?

Faculty: A hybrid class meets mostly online and partially face to face. So in a typical fifteen week semester, they meet about five times, or about a third of the time.
Interviewer: So about a third of the time?

Faculty: Yes.

Interviewer: Could you describe for me what you consider to be the advantages or disadvantages of a hybrid/blended class as opposed to a face to face class?

Faculty: Well, in terms of advantages to students, it gives them an opportunity to take courses without the commitment of coming to school physically every week so that they are still able to complete assignments and get work done on their own time. And for many of them who have jobs it’s a good opportunity. The disadvantages for some of them, though, and this is coming from the students, is that some of them lack the face to face interaction that can make them feel like they’re doing good, like they’re being successful.

Interviewer: Well, is this from feedback, face to face feedback?

Faculty: Right. And even though some students just feel that although they do well in the online environment, they feel like, they prefer to have a teacher in front of them providing instruction. It’s largely because, for some of them, it’s not something they have a lot of experience doing, and it’s not something they have a whole lot of practice doing, because in high schools not a lot of that takes place. And they don’t have a lot of experience in learning that way or thinking they can do well that way. They still tend to question whether than can experience (partly inaudible) learning in that environment.

Interviewer: What do you think your students need to be able to do that is different between blended and face to face environments?

Faculty: Well, the first largest component is being able to use the technology. That seems to be the biggest challenge because a lot of students come into a blended classroom with limited computer skills to begin with and are then asked to get onto the internet, then get into a course space, then begin to manage the course space, and manage to know where they are, what they have to do and know how to work things, and some of the technologies that are within the course space are things that they have never had experience with.

Interviewer: Sure.

Faculty: So, until they get a handle on the technology, I kind of seeing the technology as delaying their ability to get down to the course work and learn, if they are still learning the technology first.
Interviewer: I understand.

Faculty: How do you think students perceive these differences? It’s meant to be an open-ended question.

Interviewer: 

Faculty: It all depends on the student. I have students who are younger students who are just used to using technology and if they have a new technology to learn and not being afraid to try it and get a grasp of it and even being able to learn it first time on. Older students who did not grow up with computers tend to be a little more resistant, and find it more of a challenge.

Interviewer: I understand. Could you describe how your students spend their time on a class that is blended and on a class that is face to face?

Faculty: (Pause). I really don’t know. It will depend on the student. Some students will put a lot of time and effort, and I can tell they have spent a fair amount of time doing the readings and doing the assignments and answering all the questions they are supposed to answer. They have a review sheet that they are supposed to submit. And other students that don’t do those assignments—it’s hard to tell: are they doing the assignments, are they doing the readings, are they watching the instructional videos, are they using any of the learning tools? It’s hard to gage unless they are submitting the assignments.

Interviewer: I understand. Could you describe any difference in the ways in which your students approach a class that is blended learning versus a class that is face to face learning?

Faculty: Uhhh, well one thing I am doing now is that I am using an online component even with my face to face classes, so in a sense, even though they are not designated as a hybrid class and they are still meeting with me face to face, I still expect them to use the technology outside of the classroom to get assignments and do assignments and also to get a quick classroom concept in which they watch instructional videos online to prepare for classroom activities. It seems to work well for students but again, if students aren’t doing the work outside of the classroom, or doing the reading assignments are coming to class completely unprepared, which was typical even before I started doing blended because I required them to review the materials before they came to class and be prepared to discuss the concepts they read about. If you haven’t read about it, you can’t participate. I really don’t see a difference. The issue is: Are students engaged and willing to take the time to prepare outside of the classroom prior to class.
Interviewer: I see. Do your students describe differences between blended and face to face learning either during or after the class, and if so, what did they describe?

Faculty: Students have said to me that they prefer a face to face class over a hybrid class because they can have the face to face interaction. They like to get answers face to face, although I am always telling them they can email me with whatever questions they have, so they can get answers. Some students find that they can get their questions answered right away in an email, rather than waiting a whole week to see me in the face to face class and work on the assignment. But some students won’t ever use email and will struggle because they think they have to wait to see me to ask questions in class. They get quicker answers if they ask me by email. They can get their questions answered so they can complete an assignment that they have due that week. Some students will just never use email and will never ask questions on line. These students probably struggle because they think they need to see her to ask that question. They don’t have to see me to get these questions answered.

Interviewer: This is a little bit off the question, but could you estimate what percentage of your students prefer email to face to face communication?

Faculty: It would be a little hard for me to gauge, but I would estimate that less than 25% of my students actually like the hybrid course, and those are usually the ones who usually email me. And the rest are not that engaged or never email me. And there are those students who say they never realized they were in a hybrid course and I’m going to stick it out, but I am not sure this is for me. And they stay in my course, and they are successful. The reason they are successful in my course is because I lay it all out for them and guide them along the way, so they always know what they need to do and everything is at their disposal, and sometimes I get students comparing me to other courses and saying the other course I had was nothing like this; I had very little contact with the teacher and very little guidance, and very little description or guidance or telling me what to do. So they tend to appreciate the more information the professor puts on the course space and more guidance and having more direction rather than try to figure out, gee, what am I supposed to do with this?

Interviewer: Could you describe how your students form learning groups in blended learning classes and how it might differ from how they form learning groups in face to face courses?

Faculty: I don’t have my students form learning groups mainly because most of what I do is individualized. Most of what I do in the course is a speaking course, so most of the work is individual. There is no group activity. In class, I have student form groups just for
little practice exercises—it’s nothing where they have to meet outside class to get a project together. It’s just a bunch of little practice exercises. And my online students don’t need to meet. Those little practice exercises can be done individually, so I don’t have them do that.

Interviewer: How do you think the blended learning students fit into the community college when compared with students in the face to face environment?

Faculty: That’s kind of hard to tell in a community college environment as most of our students have responsibilities and live in different towns and some can’t really take part in college life to begin with. But the online students are connected by an email chain so I would say the face to face students have an advantage. That doesn’t mean the students on line aren’t interested.

Interviewer: Do students in blended classes seem to approach class with more self-assurance, engagement and interest than students in face to face classes?

Faculty: Yes; and I think we’ve kind of addressed this issue earlier, especially for our students who aren’t quite so sure they are going to be successful and are a bit apprehensive, And even for students who have done well in the class, some say “Even though I got an A in this class, I am not sure I will do it again. It was too stressful.” And they are worrying about whether they will do well.

Interviewer: Do you think blended courses help increase students’ motivation to succeed and if so, how do you know?

Faculty: Only because of the apprehension about the use of technology, they may tend to take more time to make sure they are doing things correctly. In face to face classes there is less opportunity to check how they are doing. I tell students in an online/blended class, there are always opportunities to check your grade or your grade average and see how you have done, plus I am always emailing students and sending them reminders, if the students haven’t completed stuff, I know the students who haven’t. But in terms of their motivation, I don’t know if it increases their motivation…again, it depends on the student.

Interviewer: Do you think blended learning increases a student’s ability to persevere? If so, how?

Faculty: I am not quite sure how this is different from the previous question. Also, there are a lot of immigrants at the college now, so that figures into it as well; it makes it tough for them.
Interviewer: Well, we are looking at whether you think it helps them stay at college…

Faculty: Well, again, that is the whole issue of first and second year students at a community college. There are a lot of students we serve now and if they aren’t motivated, if they don’t have a reason for being here, they are not going to persevere. If they have a working goal as to what their dream job is and if they are in a program that says this is what I need to do get where I need to go, persevere. The ones who don’t are those who are just going to the school because they have been told they have to do something with their lives and who don’t want a 9-5 job, or the ones who have always sort of slid through life and are looking for easy A’s, or are told they have to do something are the ones who don’t succeed.

Interviewer: What is your definition of self efficacy?

Faculty: My definition? From the student perspective, or…?

Interviewer: From any perspective. We’re talking about students you’re teaching, but from any perspective.

Faculty: From any perspective. Okay. Just the confidence to do the work, I guess.

Interviewer: Well, if I can help, self efficacy would be confidence in one’s abilities.

Faculty: Right. Well we have these things to do and students don’t really know if they can do it and do they care if they can do it? We have some students who come in with very low self esteem because maybe they have heard since grade school that they couldn’t do it. And we are also in a low income area, and they may not have had the support at homes, their parents maybe did not finish high school, or they don’t have English as their primary first language. The students rely totally on the people in the schools to give them encouragement, to build their self esteem, so there’s kind of a disadvantage to those students because they are coming in not knowing…they don’t have a sense of who they are, of what they are capable of, like whether they are good with math or had barriers. And some of the students who were on IEP’s in school may have doubts about their abilities. But there are other students who have been through all this and have a good sense of what they can do and who they are and they don’t need me to motivate them to learn to do this.
Interviewer: Have you seen any differences in student self efficacy from being in a blended class?

Faculty: Again, I don't know if it is the influence of the kind of course that is taught. One part of a public speaking course is developing confidence in the belief that you can do it.

Interviewer: So it’s difficult to separate the content from the medium?

Faculty: It is. Content is what’s teaching these students to think positively. There are parts in public speaking in which we talk about fear in general and the things that make us fearful and hold us back from achieving certain things and maybe the students have had bad experiences and we can figure out ways in which we can overcome these. It’s hard to say that there is a difference between blended learning and face to face that makes a difference.

Interviewer: I am going to play devil’s advocate for a second. We did say some students showed increased in self confidence because of the way you taught your course. Could that be considered an improvement in self efficacy?

Faculty: Yeah…you’re making a good point, because, in comparison with how others are teaching. They may still go into another course with a sense of self doubt because with the way this person teaches this course am I going to be as successful here as I was there?

Interviewer: So it sounds like there is still some room for doubt…

Faculty: It could be…and I have had students tell me they have not done as well in other classes.

Interviewer: Sure; I understand, I understand.

Faculty: And I have had a lot of students say that the way your class was structured makes it so much easier for me, and I’m self motivated and self starting and doing things on my own. I mean I love teaching courses on line and want to encourage students to take more of them.

Interviewer: But I also want you to be honest about the limitations. Do you continue to teach face to face?

Faculty: Yes.

Interviewer: Is there anything that you would like to add that we have not discussed.
Faculty: Yes. When we discussed the technology…technology is really just the mode by which we share. Thinking about the teaching model, we never want to say that…although now, technology is everywhere, it’s how it’s applied and part of the use of technology is learning how to use technology. Just going back a few years, the technology was pencil and paper.

Interviewer: Yeah, yeah…

Faculty: But the content, no matter how is used, is going to matter. So, finding ways of using technology and variants of technology, is going to find ways of reaching students, because every student is different, and technology will reach students in different ways.

Interviewer: Thank you. We are going to stop the interview right now.

#6

Interview #6

Interviewer: How many blended classes have you taught?

Faculty: About eleven.

Interviewer: How about online?

Faculty: I have no exclusively online courses; I have hybrid courses or what you would call blended courses.

Interviewer: And all these courses are hybrid courses?

Faculty: Yes.

Interviewer: And how about traditional classes, that is, face to face classes?

Faculty: Eighteen.

Interviewer: And what do you teach?

Faculty: I teach Introduction to Laboratory Science; Principles of Phlebotomy; Immunology; Hematology, Clinical Biochemistry, and Urinalysis (?).

Interviewer: That’s quite impressive. How long have you been teaching here?

Faculty: Five and a half years.

Interviewer: Have you always taught at this college?
Faculty: Yes. I have taught, not in an official capacity—I was the manager of the blood bank at Brockton Hospital—as part of their staff education, I taught the ER Techs phlebotomy prior to this. It was a sort of a mini-course, so…

Interviewer: OK. When did you begin teaching blended learning classes?

Faculty: 2011. That’s when we developed the online program.

Interviewer: What is your definition of a blended course?

Faculty: Well, my definition is when we use the online resources and technology to teach the majority of the course.

Interviewer: Could you identify what you would consider the advantages and disadvantages of blended learning as opposed to face to face courses?

Faculty: Well, for the advantages, especially here, I think it allows us to target certain students. The advantage to the student; they do most of the work on line; they meet here for the labs, because you can’t teach phlebotomy, or drawing blood out of an arm, completely online and we can capture that environment here. But it allows students who would not have been able to do these courses here to do that. The other thing that I really like—I am a very firm believer in active learning—I am not the kind of professor who gives you the printed power point and just expects you to sit there and stare at me. I want you to work. And the nice thing about this is they do have to work with it all on their own, but they are coming in with an almost more solid base, when they are coming into see me with the labs, because they had to do assignments, they had to do more work, so they had to put more into long term memory versus short term memory. So that’s the strong advantages. The disadvantages? You get the unmotivated student. Not all students belong in an online environment or in a self-paced environment. They don’t have that experience or motivation to do it. I find that sometimes I get half classes—some of the students are motivated and others aren’t and think they are going to pull it through—and they don’t. So that’s my big disadvantage—my face isn’t there all the time reminding them.

Interviewer: I understand. What do your students need to know and do that is different between face to face and blended learning?

Faculty: The materials the same, especially for the phlebotomy courses. But they need to know how to do more assignments; I give them a larger variety of assignments because I need to give them more time to spread it out over time for them to be able to do it on their own without me. They have to remember applications, the drop box, online
quizzes, animations, to get them to think like that. I have not yet branched into other technologies, but that is in the works. But that’s the general differences.

Interviewers: Would you say they have to be more computer literate? Is that a good explanation?

Faculty: Yes; I would say that is very good and I think that is there main issues for them lie.

Interviewer: How do you think students perceive these differences?

Faculty: Some students are fine. Because as you know, nowadays there is technology in every pocket with cell phone and lot of students handle that really well. Surprisingly, I get a lot of students in here who have never used a computer more than what they do plunking on the keyboards in the library. And I find that surprising because they have signed up for an online, hybrid course, and they have never checked emails. They don’t know how to open a PDF file. I think this is my sixth e-health hybrid course cycle that has started and every year I get more and more. I had two this year who didn’t know how to use a computer. It’s shocking.

Interviewer: So 6 out of 11 course cycles have been in e-health?

Faculty: Just about that…

Interviewer: Describe how your students spend their time in a class that is blended and a class that is face to face.

Faculty: So, for example, teaching the same Intro class I have now, the face to face, we have the traditional lectures, I give some group assignments; they have homework assignments. The blended class, the class I have in blended, they have power points, they have lectures online, they have work of the other students online, I assign them more assignments, they have critical thinking questions that I assign online, they have online discussions. When they come here, I try to do a little more lab work, I use the fake arm technology a little bit earlier than I do in the face to face work. Again, not only is it online, it is also in a shorter time period. So that tends to be the difference. I go over the key points in the power points but I don’t re-lecture them. We go over key points of laboratory procedures we have discussed. So I want to stress those things. We have to pull different colored tubes for different tests, do more activities where we try to blend other things. The students who are face to face with me have more time to do that with me, so I try to stress those things in the time I have with the blended students. It’s never me lecturing them fully for every class we meet.
Interviewer: So most of it’s application.

Faculty: Yes.

Interviewer: Could you describe the differences in the ways in which your students approach blended classes versus face to face classes.

Faculty: In my online course, in my blended course, they are more organized.

Interviewer: Really?

Faculty: In most cases, the students in my hybrid course, in my blended course, are more organized. There are a few exceptions, as (inaudible), but these students have been here since noontime and it is now a little past 3. They form study groups; they really rely on each other, more than in the face to face course, which you wouldn’t think so because the face to face course see each other all the time. But the blended course seems to come together and work together better. I have seen that.

Interviewer: And…we have another question related to that…have students described differences between blended and face to face learning either during or at the conclusion of the class? And if so, what did they describe?

Faculty: I think one of the common ones I hear is that they have a harder time trying to remember to complete the assignments in the blended courses, because there is no one reminding them. I list them out and give them a paper and a classes worth of weekly assignments, plus it’s online, and there are online reminders. But, for some reason, they want to log onto the computer but they forget. They forget to do this discussion by this time and complete at the last minute, whereas my face to face students don’t seem to have that issue.

But this blended class that I’ve had, this time around, I don’t know if it’s because of the student composition, they’ve managed to not miss any of their homework assignments. One of my classes last summer—it was a six week course and a seven week course—and it was week 9 before I got all the work from the classes completely. And obviously I failed to be on time with the students…

Interviewer: But you required the homework be in at a specific time….

Faculty: A specific time. And I do this because I want them to get on and participate. I don’t want to sit here and grade these assignments for fun. It’s a lot of work to go through all of these submissions, review them and grade them on all these assignments. I want them to learn this and to do a little more.
I have actually started—and it’s not going to become an official face to face course—to place to place materials online. One of the things we discussed in our set courses is what you could do in your face to face classrooms now that would qualify them to be flipped classes and I have actually started to place pre-lab assignments for face to face classes online for students to review. So I have been giving them lab assignments online to help them prepare for the lab assignments.

Interviewer: Do you have animations you can show students?

Faculty: Some. In this course I do have Videos of the Week, which I have scoured the internet for. I have spent a lot of nights, much to my husband’s annoyance, looking for web pages and other things I can post to that topic. This week was special collections for the laboratory, so different laboratory tests other than drawing blood. I found videos on how to take a throat culture and things like that. The online resources that come with the book I assign some of these to the students.

Interviewer: Describe how your students form learning groups in blended learning. Is there any difference between the process for blended learning and face to face learning?

Faculty: We’ve discussed this. With these guys, I don’t know if it’s the pressure of having to do it all on your own, but the blended learning class is very eager to do this. The face to face group seems a bit lazier about this.

Interviewer: How do your students in blended learning seem to fit into the college environment when compared with the students in the face to face group?

Faculty: You know, I think they are better prepared to do certain things than most students. We have had some of our students do well and actually get admitted into the nursing program and do quite well in it, because those that succeed in that blended environment, not only do they get the extra practice and assignments I have added, they are able to self-motivate and they are able to overcome any kind of obstacle and willing to put the extra time into it. I notice too that the students who do these blended courses do things at night. The older the student is the more dedicated they are and the more likely they are to submit things on line.

Interviewer: I understand what you are saying. Do students in blended courses seem to approach coursework with more self assurance than face to face courses?
Faculty: For the most part, more self assurance. You know, I’ve had a couple of students that were pushed into taking online courses and hybrid courses, and they have never taken a college course before.

Interviewer: Oh…

Faculty: An online course is not the best way to start that.

Interviewer: Do they show more engagement?

Faculty: I think so. As we go on and I am learning a few new tricks to get them involved, giving them a few more assignments, I don't know if I am doing something right, this class is getting more and more engaged in discussions, they will actually correct each other and form study groups and motivate each other. They are very open with that. And that’s becoming more of a trend that I am seeing more and more than before.

Interviewer: They actually seem more interested?

Faculty: I think so, because they want more affirmation of what they learned. They want to know the right answer. Why was this the right answer? Why was this the wrong answer? They’re very good with the online critical type of thinking questions and every class we go over the answers to these. They get excited about drawing blood and excited to move on. I don’t ever find that there are yawning students in the group.

Interviewer: Well, that’s good. Do you think blended learning courses improve student’s motivation to succeed? And, if so, how do you know?

Faculty: Do they increase their motivation? Well, let's see…we've given them tools to be able to do that and honestly, it’s up to them whether it increases their motivation or not. I’ve seen students start off slow and end up really motivated, but I don’t know if that’s because of the classroom or because that’s who they are. I find I get a little frustrated with the students because they don’t always complete what they are supposed to do. This recent class is an exception and I don’t know if that is just because of the type of students we have. I do think it helps their ability to succeed, but I am not sure it increases their motivation to succeed. I think potentially it could—I don’t have any way to prove it and I’ve had a lot of students succeed in these kind of courses. In my first course ever, we only had three students in the class and they all got A’s. They may get a better understanding of the concepts based on the activities and studies of the class. I am fully confident that that will stay with them longer than with the face to face students. I guess it works out to the harder you work, the more you are going to retain it.
Interviewer: So it is a matter of investment... Do you think blended learning improves students' ability to persevere and if so, how?
Faculty: In this area, I really think it does. I think it really enables the students and empowers them to conquer something they had not been able to. You’re really giving students opportunities for success they had not had before, and I think this Intro course gives them a start. I’ve seen a lot of the students in this program go into nursing or occupational therapy or any of the other two year programs. This is a certificate program and I have seen them do real well and use this as a springboard to other programs. And I think because of this the blended course is preparing them for other things. This is just me as a learner, I would probably do better as a face to face learner I have done a blended course because I’ve got that solid and I am able to overcome not having that professor in front of me. If they’re able to overcome that and they’re able to do well, they’re well prepared to do anything.

Interviewer: What is your definition of self-efficacy?

Faculty: Me? My definition? In reference to being a student here and? learner?

Interviewer: In whatever situation you choose.

Faculty: I guess being able to rely on myself being able to perform any task given to me and being able to complete it with minimal encouragements from anyone else.

Interviewer: That’s fine.

Faculty: I could go different ways with that!

Interviewer: Well, do you have an alternate answer?

Faculty: No. That’s a good one.

Interviewer: Have you ever seen any changes in students’ self efficacy as a result of participating in blended learning?

Faculty: Yes. I’ve seen them start up really slow during the first six weeks, where they were behind on all of these assignments and they’re able to make it through. These are the students who we see who usually have a minimum grade level of C or better, and they end up just sneaking by with that C and they end up really getting involved in a lot of the procedures and they are in the lab actually drawing blood, the motivation goes up, with the knowledge that we give online and the lectures we have at home, their knowledge and engagement level was really up, becoming more actively involved in it. I think that is a change.

Interviewer: Do you continue to teach in face to face classes?
Faculty: Yes.

Interviewer: OK. That’s a yes or no answer. Is there anything that I did not ask that you would like to add?

Faculty: Oh no. I probably gave you more on some of the answers than you were looking for.

Interviewer: You were fine.

Faculty: Actually I really like the active learning aspect of it. I’m an active learner. See it, read it, write it, do it. I’m just like that. I can still picture my notebooks. I think the more opportunities we give these students, the more times we give these students to learn, the better they are going to be.

These students work locally. I teach about 65% -70% of the lab science classes. A lot of these students actually work in and actually run my labs and my son’s in the hospital. One of my former phlebotomy students is actually the nurse assigned to my son in the hospital. So I am contributing to the local and I am totally confident in every student who graduates. It’s here that they are going to go out there and take care of the patients. If they mess up, if the lab techs mess up, if the phlebotomists mess up, they can kill someone.

Interviewer: Of course.

Faculty: So I’ve got great faith that the more active, the more active learning they get the better they do. I’ve seen it. I’ve seen it with the students I have right now. Right now I have three students working in a nursing home. They’re on that. I’m very excited. I like active learning. In the last online module we looked at, we are looking at all this technology and identifying tools. I found a voice thread, so I started recording my lectures. Maybe that’s why these students are doing better. It’s the first time they’ve had a recorded lecture.

Interviewer: Excellent. I think we’re done, unless you have something else to add?

Faculty: No; that’s it. Well, I hope that was helpful.

Interviewer: Yes, very much. Thank you.