

Implementing the Scholarship of Teaching and Learning in the  
Community College Office Administration Classroom  
A Faculty Learning Community Initiative

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Western Carolina University in partial fulfillment of the  
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## ABSTRACT

IMPLEMENTING THE SCHOLARSHIP OF TEACHING AND LEARNING IN THE  
COMMUNITY COLLEGE OFFICE ADMINISTRATION CLASSROOM: A  
FACULTY LEARNING COMMUNITY INITIATIVE

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The community college enrolls over 40 percent of all higher education undergraduate students (Mullin, 2012). Recent calls for educational reform and demands for accountability within higher education have placed increasing pressure on community colleges to produce learning and increase student success. Professional development has become necessary to assist faculty in improving teaching practice. Faculty learning communities are a faculty development initiative that can contribute to changes in instruction that improve student learning. Those who engage in the scholarship of teaching and learning (SoTL) movement can help improve teaching and/or learning through systematic inquiry into student learning, application of findings to practice, dissemination of results, self-reflection, and peer-review (Cambridge, 2001). In addition, those who engage in the SoTL seek to improve teaching and learning in the classroom and advance the practice of teaching. This study implemented the scholarship of teaching and learning in the Office Administration Department of a large metropolitan area community college through the use of a faculty learning community. This mixed-



methods case study captured qualitative data from faculty learning community members through dialogue, audio recordings and surveys. Student participants completed a pretest/post-test assignment through a skills assessment manager instructional technology tool and the results provided quantitative data for the study. The qualitative data were analyzed for common themes and the major findings were that class size and course-delivery method had little effect on student learning. Quantitative data were analyzed using Microsoft Excel and SPSS software and the findings showed that student learning was impacted through the use of the instructional technology implemented for the study.

## CHAPTER ONE: INTRODUCTION

### **Collaboration**

Collaboration and team work are commonly promoted in the workplace today. We often hear the term ‘collaboration,’ but what exactly is it? Bedwell et al. (2012) defined collaboration as a process in which two or more parties work together to achieve a common goal or desired outcome. There are many benefits to collaboration, for example, companies utilize collaboration to foster innovation, meet organizational goals, and achieve organizational success (Burns, Crow, & Becker, 2015; Daugherty et al., 2016). Establishing collaboration in the workplace, however, is not always an easy task. Collaboration is a culture that must be cultivated within an organization (Burns et al., 2015).

### **Lack of Collaboration in Higher Education**

Most large companies in the nation today have redesigned their organizational culture to support a climate of collaboration—with the exception of the higher education system (Burns et al, 2015). The higher education system, specifically the teaching process, is characterized by a culture of isolation or individualism (Hadar & Brody, 2013). Faculty members are isolated from one another. Many teachers learn to teach by on-the-job training, or by actually teaching. This is especially true in the community college where few faculty are formally trained to teach (Twombly & Townsend, 2008). In this process, they evaluate what works and what doesn’t. However, faculty members often do not share this information with their colleagues.

### **Collaboration among Faculty Leads to Better Teaching**

The higher education system is an important component in the economy (American Association of Community Colleges [AACCC], 2012). Therefore, it is imperative that teachers stay abreast of changes in the global economy and business innovations (AACCC, 2012). One may wonder how this could be achieved. It must begin at the organizational level. To ensure that students are learning and obtaining the skills and knowledge necessary to compete in the global economy that is the reality of the 21<sup>st</sup>-century, institutions of higher education must redesign their organizations, as many in the business world have, from a culture of isolation to one of collaboration (AACCC, 2012). Higher education institutions must provide a venue in which faculty members can work together and share best teaching practices to ensure student learning and thereby restore and improve the nation's standing in the global economy by producing skilled, knowledgeable workers (AACCC, 2012).

The community college is an essential element in higher education and the setting for this study. According to the 2011-2012 issue of the *Chronicle of Higher Education Almanac* (2011), the community college enrolls approximately 40 percent of all undergraduate students in the United States. The open access admissions policy of community colleges has made higher education possible for many citizens of all ages, races, and socio-economic statuses. Due to the large numbers of students attending community college and the wide diversity of those students, collaboration is needed among community college faculty to share best practices on teaching in order to improve the teaching and learning process.

## **Methods to Improve Teaching**

To assist in the conversion to a culture of collaboration, many higher education institutions are using faculty learning communities (FLCs) as a professional development tool to promote community and collaboration among faculty and staff. Faculty learning communities are used for many purposes other than professional development including “organizational improvement, innovation, and enhancement of practice” (Hadar & Brody, 2010, p. 1642). The scholarship of teaching and learning (SoTL) is frequently used synchronously with faculty learning communities to enhance student learning and improve teaching practice. The SoTL incorporates a wide array of practices that engage faculty in systematic study of student learning for the purpose of improving their own courses and public sharing of their findings to expand the knowledge base of teaching (Hutchings, Huber, & Ciccone, 2011). The SoTL involves review and reflection upon one’s teaching practices and public sharing of the findings with one’s colleagues (Potter & Kustra, 2011).

Faculty learning communities are more prevalent in universities than community colleges (Cox, n.d.a; Jackson, Stebleton, & Laanan, 2013). This is mostly attributed to the unique characteristics of being a faculty member in the community college; i.e., factors such as heavy workloads and time constraints which may prevent them from attending training events (Jackson et al., 2013). In addition, many community colleges face funding restraints which prevent them from providing adequate, effective training and development for faculty (Jackson et al., 2013).

Collaboration is needed in the workplace to meet organizational goals and achieve organizational success. This is especially true in higher education where faculty often work in isolation and are unable to collaborate with colleagues. Community college faculty, in particular, need collaboration in order to improve teaching and learning as they are not trained or instructed on how to teach. Promoting collaboration among faculty on their teaching will lead to better teaching and, therefore, a better workforce. FLCs and SoTL are methods to improve teaching and/or learning that have been successful in universities, yet they are often not tried in community colleges. It is the researchers' contention that FLCs and SoTL could be equally successful in improving teaching and learning in the community college. Therefore, in this study the researcher intends to create a faculty learning community, using methods from SoTL, designed to implement changes in instruction in a large, metropolitan community college and describe the creation process.

### **Background of the Study**

Personal experience as a faculty member at a community college inspired the researcher's interest in the need for scholarly teaching at the community college level. The researcher noted, first-hand, a lack of collaboration among faculty members and a culture of isolation in the teaching process. The researcher observed that, often, community college faculty members are given the materials to teach, but they are not given instruction on how to teach. Few community college faculty are formally prepared to teach; most hold a master's degree with 18 hours college credit at the graduate level in the specific teaching field (Twombly & Townsend, 2008). So, many community college faculty members are ill-prepared to teach. Thus, the researcher perceived a need for

dialog among community college faculty for the purpose of sharing best practices; i.e., teaching methods that are successful and those that are not. By definition, the SoTL is a useful tool for the creation of dialog and sharing of best practices among faculty. SoTL is a process wherein faculty study their teaching practices and student learning to determine effective methodologies and publicly share these findings with their colleagues (Potter & Kustra, 2011). Through the continual process of reflection and sharing, dialog among faculty is present and best practices are shared within the unit.

### **Rationale**

Calls for educational reform within higher education also inspired the researcher's interest in this study. Recently several events have fallen under the area of reform in the higher education arena including the shift to the learning paradigm, calls to transform higher education institutions to meet the requirements of students and the economy in the 21<sup>st</sup>-century, demands for accountability and increasing pressure to improve teaching practice, and calls for student success in retaining students. The learning paradigm has taken place over the last two decades, and it shifts the focus from the instructor to the student and from teaching to learning (Barr & Tagg, 1995; Saulnier, Landry, Longenecker, & Wagner 2008). The onset of a global economy has produced an ever-changing economy and the need for students who can compete in such an economy. The American Association of Community Colleges (2012) issued a report calling for a transformation of the community college institution to redesign their mission to meet the changing needs of society.

One reform movement, Achieving the Dream (ATD), is a national initiative requiring the combined efforts of administration, faculty and staff to increase success of

community college students. “ATD was established to promote evidence-based programs and interventions to produce and sustain student success” (Hagedorn, 2015, p. 49). Success, assessment and accountability are the core of the initiative (Hagedorn, 2015). The focus on student learning and success stems from presidential attention on the community college as well as other external bodies who are concerned with the quality of learning in the U.S.

Improved teaching and student learning are the basis for these educational reform calls. Demands for accountability in the community college system require ongoing faculty development to prepare faculty for their roles in the learner-centered setting (Campbell, 2009). The traditional structure of the classroom involves that of a lecturer delivering knowledge to students. The learning paradigm shifts responsibility for learning from the teacher to the student. Hubball and Poole (2003) depicted learner-centered education as a prospective resolution to meeting the varied needs of community college students. In order for community colleges to transition to learner-centered institutions, faculty must be immersed in scholarly teaching (Kincaid, 2009). According to Kincaid (2009), student learning can be fostered through the use of the scholarship of teaching and learning, which expands the teaching and learning knowledge base.

Kincaid (2009) recommended increased collaboration among faculty and the promotion of the scholarship of teaching and learning as strategies to address the issue of isolation in the community college. Kincaid (2009) proposed faculty learning communities (FLCs) as the new organizational structure to accomplish these strategies; he contended that FLCs may successfully be used to employ community college faculty in the act of scholarly teaching and thereby aid in transitioning the community college

into an organization focused on learning. Developing professionally trained faculty for new roles in the learner-centered community college classroom requires ongoing faculty development (Campbell, 2009). Faculty development can be the vehicle to furnish community college faculty with the means necessary for satisfying the learning requirements of an increasingly diverse student body (Robinson, 2011). The shift to the learning paradigm, the onset of the global economy, reform calls such as ATD which demand improved teaching and learning and success have defined the problem of the need for improved teaching and learning in the community college and are the impetus to addressing the issue. FLCs can help improve the teaching and learning process and are the choice of faculty development program for this study.

### **Purpose of the Study**

The purpose of this mixed methods, descriptive collective case study is to implement the scholarship of teaching and learning in the Office Administration Department of a large metropolitan area community college through the use of a faculty learning community. The goal of this initiative is to describe the birth and decision-making processes of a topic-based FLC at a community college that is designed to implement improvements in instruction and thereby improve student learning. In accordance with the definition of a faculty learning community, the researcher created a community of faculty and staff participants. The participants evaluated current teaching practices and instructional technologies, as well as student learning outcomes, to decide how existing techniques could be improved or explore new methods for merit for the possibility of replacing existing instructional techniques. The overarching objective is to improve teaching practices and student learning on both an individual and collective basis



through the process of review and reflection. In conjunction with this study, the researcher has identified the following research goals with primary focus on Goal 1 and secondary focus on goals 2 and 3:

### **Research Goals**

1. Describe the processes and resources faculty within the Office Administration Department of a large metropolitan area community college use to initiate and sustain a faculty learning community.
2. Describe any changes in instructional strategies or practice or knowledge acquired through interaction by the FLC members in the FLC initiative.
3. Describe any changes in student learning outcomes in the courses in which members of the FLC implement the planned instructional strategies.

Based on research goal 3 for this study, the null hypothesis is:

Null Hypothesis ( $H_0$ ): There is no difference in student learning outcomes after receiving remedial help through a new form of computerized teaching method to improve learning.

Alternative Hypothesis ( $H_A$ ): There is a difference in student learning outcomes after receiving remedial help through a new form of computerized teaching method to improve learning.

### **Significance of the Study**

There are few studies that present empirical evidence that reveals how a faculty learning community, as a community college faculty development initiative, can contribute to changes in instruction that improve student learning.

## **Definitions of Terms**

*Faculty Learning Community* – A cross-disciplinary group of faculty and staff consisting of 6 to 15 members who engage in an active, collaborative, yearlong program with a curriculum about enhancing teaching and learning with frequent seminars and activities that provide learning, development, the scholarship of teaching, and community building (Cox, 2004).

*Learning Paradigm* - frames learning holistically, recognizing that the chief agent in the process is the learner; learning environments and activities are learner-centered and learner-controlled; students are active discoverers and constructors of their own knowledge (Saulnier et al., 2008).

*Scholarship of teaching and learning* – involves the systematic study of teaching and/or learning and the public sharing and review of such work through presentations or publications (McKinney, 2003).

## **Organization of the Study**

This chapter introduces faculty learning communities as a professional development tool to promote the scholarship of teaching and learning within the community college setting for the purpose of transforming the organization into a learner-centered organization. This chapter presents the background of the study and the rationale for the study, the purpose of the study, and the research goals. The latter part of the chapter explains the significance of the study and operational definitions guiding this investigation. Chapter two provides a discussion of the literature relevant to this study.

## CHAPTER TWO: LITERATURE REVIEW

### **Introduction**

This chapter provides background information on the site of this study and a rationale for the choice of faculty learning communities as the professional development tool. It also focuses on literature related to the use of faculty learning communities as a professional development vehicle to involve faculty in the scholarship of teaching and learning to unite faculty and staff in adapting community colleges into learning-centered organizations. The discussion of the literature continues as follows.

### **Rationale for Shift to Learning Organization**

According to PR Newswire (2012), “a rapidly changing America and a drastically reshaped world and the need for a globally competent and competitive citizenry in today’s knowledge economy have captured national attention and placed focus on the community college system” (p. 1). The American Association of Community Colleges (AACC) “issued a report to galvanize college leaders to transform their institutions for the 21<sup>st</sup> century needs of students and the economy” (Gonzalez, 2012, p. A17). The report stated that colleges must “redesign their institutions, their mission, and their students’ educational experiences to ensure that they meet the needs of a changing society” (Gonzalez, 2012, p. A17). The president of the association, Walter G. Bumphus, stated that the association had been focused on access for years and now the members of the association needed to turn their attention equally to success (Gonzalez, 2012). The report outlined specific recommendations to reform the community college system by changing institutional characteristics from a culture of isolation to a culture of

collaboration, switching from individual faculty prerogative to collective responsibility for student success, and shifting the focus from teaching to learning (AACC, 2012).

### **Rationale for Professional Development and Choice of FLCs**

Demands for accountability in higher education are increasing. Recently, the focus in community colleges has transitioned from access for all to student success. Requiring community college faculty to be responsible for student success has generated intense pressure to enhance teaching practices (Robinson, 2011). Yet, community college faculty must overcome several obstacles in order to meet such accountability demands. For instance, as previously stated, community college faculty are not trained educators (Twombly & Townsend, 2008). In addition, within the institution, they encounter a lack of institutional support for teachers and teaching, insufficient time and resources to learn new teaching methods and methodology, and the absence of a reward system for good teaching (Sperling, 2003; Barrington, 2004; Eddy, 2007). Professional development is, therefore, a key component in preparing faculty for their new roles and responsibilities in the learner-centered community college classroom (Robinson, 2011). Since faculty must use various teaching and learning approaches to meet the needs of today's diverse student body, instructional development was identified as a necessary element of faculty development practices (Robinson, 2011).

Over the last several years, faculty/professional development at community colleges evolved into a top priority topic (Robinson, 2011). Faculty development at community colleges typically includes attending professional meetings or conferences (if funding permits) or short training sessions on specific issues. However, this study viewed faculty development similar to the interpretation and definition set forth by the

Professional and Organizational Development Network in Higher Education (POD). POD considered faculty development as a multi-level approach consisting of faculty development, instructional development and organizational development (Gillespie & Robertson, 2010). The area of faculty development placed the focus on the faculty member as a teacher, scholar, professional, and person, and the area of instructional development focused on the course, the curriculum and student learning (Gillespie & Robertson, 2010). Robinson (2011) identified faculty development as a medium for community colleges to arm faculty with the tools required for satisfying the learning requirements of an increasingly diverse student body with varying learning styles, expectations, and services and preferences. Although there is a wide range of faculty development practices at community colleges, the faculty learning community was chosen as the faculty development program for this study.

Faculty learning communities provide “safe, supportive communities in which faculty can investigate and take risks in implementing new approaches to teaching and by increasing collaboration and coherence of learning” (Cox, 2003, p. 162). Cox (2003) stated that faculty learning communities stimulate learning and development, build community, and foster the scholarship of teaching and learning. Positive outcomes of faculty learning communities include retention of faculty and learner-centered approaches to teaching (Cox, 2003). Faculty learning communities can help promote more effective teaching and learning, engage faculty in scholarly teaching, and be a vehicle to transforming community colleges into learning-centered institutions (Cox, 2003; Cox, 2004; & Kincaid, 2009).

### **What do Community College Students Look Like?**

Historically, a traditional college student is “one who starts college immediately after high school, is financially dependent upon parents, attends college full-time, lives on campus, and has few work or family obligations” (Sàenz, 2004, p. 100). Today’s college students are far from traditional. In fact, community college students have unique characteristics. Many are low-income, minority, first-generation college students (i.e., the first in their family to attend college); many commute, work more hours off campus, have families or other obligations that compete for their time, and are less likely to develop relationships with faculty, strong relationships with other students, or participate in campus activities (Pike & Kuh, 2005; Murray, 2010; Mullin, 2012). Diversity is the standard at American community colleges (Green & Ciez-Volz, 2010). In a typical community college classroom, there are Blacks, Whites, Latinos, Asians, high-school students, older non-traditional students, both technology-savvy and technology-illiterate students, students whose first language is not English, students with documented learning disabilities, and students who are academically prepared as well as those who require long hours of tutoring and mentoring (Green & Ciez-Volz, 2010). In addition to differing on physical attributes such as gender, race, age, and cultural backdrop, each individual student brings his/her own experiences, maturity level, developmental stage, level of readiness for college, motivation, and learning predilections (Campbell, 2009).

This varied array of students requires adjustments in both teaching styles and strategies (Campbell, 2009). Many teaching and learning theories exist; however, agreement on any one method which will ensure student learning does not exist (Campbell, 2009). Regardless of the approach, “a radical redesign of curricula offered to

adult students is necessary” (Chaves, 2006, p. 149). Between work, finances, and family responsibilities, adult students require courses that cultivate both educational and vocational abilities, have flexibility in scheduling, and support adult lifestyle commitments (Campbell, 2009; Berker, Horn, & Carroll, 2003; Kasworm, 2003). The work of Hubball and Poole (2003), Brown, Murphy, and Nanny (2003), and others has supported a learning-centered approach to teaching as an avenue to develop and/or improve student skills in the following areas: critical thinking, communication, and problem-solving skills. And, they depicted learner-centered education as having the ability to meet the varied needs of community college students (Hubball & Poole, 2003; Brown et al., 2003).

### **About Community College Faculty**

Postsecondary researchers place little emphasis on community college faculty as individual research intended for publication is predominantly performed by those employed by research universities (Twombly & Townsend, 2008). The last decade has produced relatively few books dedicated to faculty work at community college (Twombly & Townsend, 2008). Today, there is still scant research on community college faculty. Community college journals, which only publish material about community colleges, furnish research about community college faculty (Twombly & Townsend, 2008). Most information about community college faculty emanates from “small-scale quantitative or qualitative studies conducted at the institutional or state level...and other venues with limited distribution such as dissertations and institutional reports” (Twombly & Townsend, 2008, p. 11).

Community college faculty members are a very important part of the professoriate in U.S. Higher Education (Green & Ciez-Volz, 2010). The annual almanac compiled by the Chronicle of Higher Education reported that, out of all faculty teaching in public, non-profit higher education systems, more than 43% taught in community colleges (as cited in Twombly & Townsend, 2008). A national survey of faculty conducted in 2010 by the American Federation of Teachers (AFT) showed similar results with 41% of faculty teaching at community colleges (AFT, 2010). According to The Chronicle of Higher Education's 2011-2012 Almanac Issue (2011), community college faculty members taught over 39% of all undergraduates in 2007-2008. Thus, faculty members who are knowledgeable, experienced, and committed are vital to the success of both the students and the institution (Kinchen, 2010).

Just as the student body of the community college varies greatly from the student body of the four-year college, so too do community college faculty differ greatly from faculty members of four-year institutions. Community college faculty members are different in respect to gender, mission, education levels, and employment rank (Kinchen, 2010). Female faculty members are gradually surpassing their male counterparts in community colleges (Kinchen, 2010). The mission of community college faculty is teaching and the transmission of knowledge, whereas the mission of many four-year college faculty members is research—the discovery of knowledge that results in subsequent publication (Kinchen, 2010). Therefore, in contrast to faculty at four-year institutions, faculty at community colleges are not duty-bound to conduct research (Twombly & Townsend, 2008). Few community college faculty members have formal training for a teaching position like at four-year institutions; most simply hold a master's



degree with 18 graduate hours in the specific teaching field (Twombly & Townsend, 2008). Faculty in community colleges are predominantly composed of part-time (adjunct) faculty. In fact, adjunct faculty members outnumber full-time faculty by approximately two-thirds in community colleges (Twombly & Townsend, 2008). Community college faculty members typically have a heavier teaching load than four-year faculty—the average teaching load is 15 credit hours per semester (five 3-hour courses) (Twombly & Townsend, 2008). Full-time community college faculty members have other administrative duties as well, such as participation on committees (Kinchen, 2010). In addition, the community college teacher must know more than her discipline; “she must possess the ability to engage and encourage, motivate and inspire, teach and learn from her diverse students” (Green & Ciez-Volz, 2010, p. 81).

### **Site Background**

Gaston College is a community college within the North Carolina Community College System. According to the Gaston College Website, the State of North Carolina granted Gaston College a charter in 1963, and since that time, Gaston College has grown to one of the state’s largest community colleges covering three campuses and two counties—Gaston and Lincoln counties (Gaston College About Us, n.d.). The central campus is based in the town of Dallas, which is in Gaston County. The city of Lincolnton, which is in Lincoln County, houses Gaston College’s Lincoln campus. It originally opened in August 1969 as the Lincoln Center and relocated to its present location on Aspen Street and began offering classes at this location in the spring of 1999 (Gaston College About Us, n.d.). In 2005, Gaston College acquired the former North Carolina Vocational Textile School situated in the city of Belmont, which is also in

Gaston County. The Belmont campus, originally referred to as the East Campus, is now known as the Kimbrell Campus and Textile Technology Center (Gaston College About Us, n.d.).

The mission of Gaston College is to “promote student success and lifelong learning through high-caliber, affordable and comprehensive educational programs and services responding to economic and workforce development needs” (Gaston College, About Us, n.d., para 2). Its vision is “to be viewed as the premier post-secondary educational resource in the region, consistently recognized as an exceptional community college and known in the state and nation for successful and innovative programs” (Gaston College About Us, n.d., para 1). Gaston College was initially accredited by the Southern Association of Colleges and Schools in 1967 (Gaston College QEP Document, 2011). The State of North Carolina and the State Board of Community Colleges sanctioned Gaston College to award degrees, diplomas and certificates (Gaston College QEP Document, 2011). The college has more than 400 full-time employees, consisting of faculty and staff members (Gaston College QEP Document, 2011). The college admits more than 6,000 curriculum students each term and over 23,000 continuing education students annually (Gaston College QEP Document, 2011). The student body is 51% male and 49% female (Gaston College QEP Document, 2011). Although 75% of the student body is Caucasian, the college is somewhat diverse with 15% of the student body being African American students, and 4% being Hispanic students (Gaston College QEP Document, 2011).

The Office Administration Department of Gaston College is located within the Business and Information Technology (IT) Division. The Business and IT Division has

28 full-time employees, 8 of which are full-time instructors in the Office Administration Department. There are several adjunct professors in the division as well.

### **Why Faculty Learning Communities?**

In keeping with its mission, the college has established a Quality Enhancement Plan (QEP) called ‘Strengthening Academic Internet Learning’ (SAIL) (Gaston College QEP Document, 2011). According to the QEP Document, “the goal of SAIL is to provide a high quality learning experience for students in online courses...by creating and implementing standards for online course design and delivery based on best practices in education” (2011, p. 1). Gaston College chose online learning as the focus of its QEP due to the “unprecedented growth in student demand for more flexible course offerings” (Gaston College QEP Document, 2011, p. 2). The “success of SAIL will be measured by comparing the achievement of course level Student Learning Outcomes (SLOs) in selected online courses to their traditional seated counterparts using a uniformly-delivered course assessment of SLOs as a gauge” (Gaston College QEP Document, 2011, p. 24). Although the focus of SAIL is on online learning, the college’s goal is to improve all courses in both design and content by teaching all sections of a particular course consistently, whether the course be seated, hybrid, or online. Most seated and hybrid sections of courses at Gaston College utilize a learning-management system component (Blackboard). Thus, all sections of a particular course basically use the same course design, materials, and technology. So, this study used the basis and premise of the SAIL initiative, however, it replaced every occurrence of the word “online” with the word “seated” as this study focused on seated sections of a SAIL course.

Four of the six initiatives within the 2008-2013 Gaston College Strategic Plan (Gaston College QEP Document, 2011) were centered on student learning. A process to ensure course quality was crucial in providing students a superior education and to maintain the College's mission and strategic plan (Gaston College QEP Document, 2011). The demand for increased online course offerings and a college commitment to course quality led to the formation of the Distance Education Advisory Committee in the fall of 1999 (Gaston College QEP Document, 2011). The Committee was renamed to the Online Instruction Committee (OIC) in 2005, with the goal to improve student learning through best practices in course delivery (Gaston College QEP Document, 2011). In 2006-2007, the OIC began the Gaston College Online Quality Initiative and developed standards in five areas: "1) the student experience, 2) course materials, 3) assessment, 4) learner engagement and support, and 5) course technology" (Gaston College QEP Document, 2011, p. 9).

In brainstorming sessions with faculty and staff, three themes emerged as necessary in conjunction with the SAIL project: 1) Quality standards, 2) technology and training, and 3) student preparedness (Gaston College QEP Document, 2011). The first theme led faculty to standardize course format through the creation of common course templates, which serves to streamline course development for faculty while simultaneously refining the student learning experience (Gaston College QEP Document, 2011). This template ensures that all sections of a course—whether seated, hybrid, or online—are taught consistently. The college contended that any course must have clear expectations and an appropriate design in order to guarantee a successful student learning experience (Gaston College QEP Document, 2011).

The second theme required relevant technology, faculty development to administer a quality learning experience, and the use of collaboration technology to expand student engagement (Gaston College QEP Document, 2011). The college has taken active steps to meet the qualifications for developing quality standards in course design and in preparing students for learning. The college decided that the infrastructure required to broaden the classroom experience beyond the campus was technology (Gaston College QEP Document, 2011). According to Floyd, “faculty must have access to learning technologies, be competent in their use, and put the new competencies to work in the online classroom” (as cited in Gaston College QEP Document, 2011, p. 27). The college provides many faculty development opportunities in the area of technology; i.e., Microsoft applications and Blackboard features. However, the faculty development training does not focus on pedagogy or provide a deep knowledge base about teaching and best practices. It has been stated that few faculty possess all of the skills required for developing effective online courses such as training, experience, pedagogy or technology expertise (Tremblay, 2006; Oblinger and Hawkins, 2006). Community college faculty are not trained educators, therefore, the researcher contends that they lack the skills required for developing effective courses. Thus, a team effort may be a better solution for developing effective courses that promote student learning and success.

The third theme required that students be informed of the skills required to succeed in the course (Gaston College QEP Document, 2011). This can be achieved through intelligent design, clear expectations, and course orientations (Gaston College QEP Document, 2011). The college contended that the final component of successful programs is well-trained, motivated instructors (Gaston College QEP Document, 2011).

Faculty training in the development and teaching of courses can instill confidence in faculty to ensure student success as outlined by the SLO's (Gaston College QEP Document, 2011).

Currently, Gaston College's QEP SAIL Program does provide the quality standards for course creation in the form of templates. The program meets the quality standards theme in that the college has created a structured template for all faculty members to follow in designing courses. Once a faculty member submits a course for review, the college's IT Specialists meet with the faculty member and provide the course template. When the faculty member has implemented all required changes and the course is approved, all faculty members teaching the course use the same standardized course format.

It also provides for theme 3, student preparedness through course design and orientations. The SAIL Program also meets the third theme requirement of making students cognizant of the skills required to succeed in any course format or environment through the use of similar course design, clearly stated expectations, and course orientations.

However, it is not sufficiently addressing theme 2. Therefore, the researcher proposed the use of a faculty learning community as the professional development tool to address the faculty training portion of this theme. According to the college's QEP, the key to expanding the classroom beyond the campus is technology (Gaston College QEP Document, 2011). The topic chosen for the faculty learning community was instructional technologies. The FLC provided in-depth knowledge into the area of course design, pedagogy, and instructional technologies in a community of faculty and staff. The FLC

promoted the scholarship of teaching and learning within the community college setting for the purpose of transforming the organization into a learner-centered organization. Kreber and Kanuka (2006) contended that “through reflective, inquiry based learning about teaching and the interactive capabilities of Internet communication technologies, higher education teachers can pursue excellence in promoting student learning” (p. 109).

The choice of a faculty learning community as a professional development tool also addresses the issue of isolation and the need for community in the community college faculty profession as discussed below in the *Need for Community and Isolation in the Teaching Profession* sections of this review. Faculty learning communities promote the scholarship of teaching and learning and improve the practice of teaching through research into and reflection about best teaching practices and dissemination of this information across the organization. The scholarship of teaching and learning will be discussed in the *Scholarship of Teaching and Learning* section. The *Faculty Learning Communities and the Scholarship of Teaching and Learning* section discusses the relationship between the two and discusses ways in which to share information about best teaching practices. Ultimately, faculty learning communities support the transformation of an institution from a teaching organization to a learning organization. The technology-based focus of the faculty learning community can also help promote student engagement. The *Faculty Learning Communities and Technology* section discusses the nature of today’s students and their relationship with technology. In addition, Gaston College’s Quality Enhancement Plan discusses the importance of technology in engaging students today.

## **Need for Community**

The concept of community is imperative for success, not only in personal life but also in the workplace. Social Science has shown that humans have an inherent need to feel connected – they are communal beings with a basic need to belong (Ankrom, 2009). Ankrom (2009) stated that this need is crucial to the growth and development of young people, and it continues to play a vital part in one's overall sense of welfare throughout life (2009). It has been noted that the concepts of community and sense of community are, in fact, vital for creating successful, collective outcomes within an organizational environment (Oxendine, Borgida, Sullivan, & Jackson, 2003). McMillan and Chase (1986) defined sense of community as “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together” (p. 9). Therefore, community provides a shared, emotional sense of connection for members.

Franklin (2008) referred to the literature which suggests that ‘sense of community’ is generated in settings which encourage open, direct, and candid communication. The element of trust within the concept of sense of community is of utmost importance because people share and build community with those they trust (Franklin, 2008). Trust is the sentiment that members of a community are trustworthy, and it signifies members' inclinations to depend on one another (Rovai, 2002). The ability of groups to fully function is augmented by high levels of trust (Franklin, 2008). Trust, within the framework of social capital, is customs and relationships entrenched in groups that empower members to synchronize to attain desired goals (Oxendine et al., 2003). Social capital enables communities to work together, to quell impasses and to



unite for collective benefit (Oxendine et al., 2003). They identified social trust as a key element that communities possess to varying degrees and stated that “social trust is the individual-level internalization of norms of reciprocity, which facilitates collective action by allowing people to take risks and to trust that fellow citizens will not take advantage of them” (Oxendine et al., 2003, p. 672).

Research suggests that the elements of community vary by location and suggest that sense of community is unique to the setting (Rovai, 2002). The field of education is one such unique setting and is the focus of this study, specifically in the community college setting within the Office Administration discipline. The educational setting consists of several components including classrooms, teachers, and learners, each of which are possible communities. Rovai and Lucking (2000) differentiated between classroom and school communities, where the classroom consists of a group of student learners and the school consists of those charged with imparting learning (Rovai, 2001). It is important to develop and nurture a sense of community among learners in the classroom (Rovai, 2000). However, it is equally as important to build and nurture community among faculty. Teaching has long been depicted as an isolated profession, and this tendency toward isolation is more apparent in the higher education arena (Hadar & Brody, 2010).

### **Isolation in the Teaching Profession**

Professional isolation is an important topic within the educational field, one that has been discussed, recognized, and authenticated (Sindberg & Lipscomb, 2005). Several authors cited the lack of community as a recurring theme in the educational arena (Layne, Froyd, Morgan & Kenimer, 2002; Cox, 2004). In fact, the most frequently

reported barriers to educational reform are lack of connections and collaboration between teacher and student, among students, and among teachers (Kincaid et al., 2006; Peskin, Katz, & Lazare, 2009). Often, there is little collaborative interaction or cohesion among academic instructors (Peskin et al., 2009). Many researchers have discussed the isolation of faculty. Kincaid (2009) noted that, in the community college, isolation characterized faculty members' lives. Grubb et al. (1999) referred to isolation as a "defining aspect of faculty lives" (p. 283).

Sindberg and Lipscomb (2005) found that many in the literature contend that the school structure itself encourages professional isolation and restricts teacher interaction. Wagner (2001) noted that teachers are isolated from the rapidly changing world of globalization and business innovation, are essentially isolated from contact with coworkers, and often labor in seclusion. Schools offer no infrastructure to support collaboration and thereby support the 'status quo' (DuFour, 2011). Few teachers have access to the concepts or tactics of their coworkers, and therefore they view their classrooms as their exclusive territory (DuFour, 2011). Wagner stated that "teamwork is now the dominant mode of work nearly everywhere—except in education" (Wagner, 2001, p. 2).

According to DuFour (2011), simply urging teachers to join forces will not solve the problem, instead it will demand that professional collaboration be entrenched and become customary protocol in the school. Professional collaboration can become routine practice in the institution through the implementation of faculty learning communities. In order to break traditional teacher isolation, a new model has developed over the last two decades which promotes a community-approach to teaching as opposed to an individual

approach (Hadar & Brody, 2010). Kincaid, et al. (2006) recommended three strategies to address the isolation of community college faculty including increasing community and collaboration; improving the intellectual environment; and endorsing the scholarship of teaching and learning. Kincaid (2009) contended that, higher education needed a new organizational structure in which to promote scholarly teaching. Kincaid (2009) proposed faculty learning communities (FLCs) as the new organizational structure to accomplish the recommended strategies. Faculty learning communities help alleviate isolation by providing opportunities for interaction among faculty and creating channels of communication (Schlichte, Yssel, & Merbler, 2005). FLCs, also referred to as professional learning communities, are professional development models which emphasize collegial communities instead of the traditional individual paradigm (Hadar & Brody, 2010). Research has shown that faculty learning communities can help build community and promote more effective teaching and learning (Cox, 2004; Kincaid, 2009). Kincaid (2009) contended that “faculty learning communities might also be an effective means to engage community college faculty in scholarly teaching and to connect faculty and staff in transforming community colleges into more learning-centered organizations” (pp. 78-79).

### **Learning Communities**

Learning Communities are an educational reform effort that have gained national popularity (Smith, 2001). Currently, they exist within both public and private colleges and universities, and in various types of institutions such as two-year as well as four-year institutions, in research universities, and in comprehensive universities as well as liberal arts colleges (Smith, 2001). The terms ‘learning community’ and ‘community of

practice' are used interchangeably by many. The term learning community suggests the creation of a community; however, in higher education, learning communities can be created for students, teachers, or administrators (Cox, 2004). The key to learning communities is that the group shares feelings of affiliation and common objectives (Cox, 2004). Basically, learning communities are comprised of participants who are unified in action and the significance that action has, for themselves as well as the larger cooperative (Swan, Scarbrough, & Robertson, 2002). The definition of learning communities has constantly changed in response to the needs of learners and the communities in which they work (Kilpatrick, Barrett, & Jones, 2003). Regardless of how the term is defined, a learning community "can be a powerful platform for student learning and faculty development" (Smith, 2001, p. 7).

Learning communities have been used to improve the organization, promote professional development, foster innovation and enrich practice (Hadar & Brody, 2010). One form of learning community, a faculty learning community, has been used to advocate teamwork and nurture interpersonal relationships among faculty in the educational arena. Faculty Learning Communities (FLCs) have been used to increase learning for both students and faculty and improve the educational institution. According to Cox (2004), faculty learning communities can involve faculty in the cause of student learning and aid in transforming higher education institutions into learning organizations. According to Nugent et al., (2008) "faculty participation in FLCs can increase interest in teaching and learning, as well as provide a supportive space for faculty to explore, evaluate, and adopt new instructional tools and practices" (p.53).

## **Faculty Learning Communities**

**Need for FLCs.** Faculty learning communities have attracted a great deal of interest in the educational arena because of the need for community in higher education as discussed earlier in this paper, and research has substantiated community as being essential for graduate students and faculty at all career-stages (Gillespie & Robertson, 2010). FLCs provide the community, support, and information to address the high attrition rate in graduate/doctoral students and help promote student persistence (Cox, 2004). In addition, FLCs provide newer faculty opportunities to navigate the tenure system and achieve successful integration of their personal and professional lives (Gillespie & Robertson, 2010). FLCs can address the issues that established faculty face such as stress, burnout, and feelings of isolation, and offer support networks to nurture growth and development and stimulate intellectual interests (Cox, 2004).

**Definition.** Miami University's FLC program has modified student learning community models to its approach to faculty development, with many of the same constructive results (Cox, 2003). The outcomes of an FLC include mentoring of pre-tenure faculty on the process of achieving tenure, reducing stress-related health problems, integrating family and academic worlds, and achieving intellectual growth and development in the areas of teaching and learning (Cox, 2004). The researcher sought to promote growth and development in teaching and learning through this FLC initiative. Faculty learning communities (FLCs) foster professional development as well as personal growth (Glowacki-Dudka & Brown, 2007). In addition, faculty learning communities can "also play an important role in helping individuals and institutions experience a structure that is part of the learning paradigm" (Cox, 2001, pp. 69-70).

FLCs have offered personal connections with peers, opportunities for cross-disciplinary interaction, and the ability to address teaching and learning concerns (Glowacki-Dudka & Brown, 2007). A faculty learning community is a particular kind of community of practice and the focus of this study. By definition, a faculty learning community is a group of 6 to 15 or more trans-disciplinary faculty, graduate students, and professional staff (8 to 12 is the recommended size) engaging in an active, collaborative, year-long program with a curriculum about enhancing teaching and learning and with frequent seminars and activities that provide learning, development, transdisciplinarity, the scholarship of teaching and learning, and community building (Cox, 2004; Smith, et al., 2008). The format of FLCs provides faculty with an ongoing process of learning and reflection in conjunction with the support of colleagues who share a common goal (as Cox, 2004). If managed properly, FLCs promote professional development and the scholarship of teaching, and more faculty participation within the institution (Glowacki-Dudka & Brown, 2007). In turn, the sharing of teaching and learning skills and knowledge among faculty and staff encourages interdisciplinary activities and enhances the scholarship of teaching (Glowacki-Dudka & Brown, 2007).

**FLC categories.** Cox (2004) identified two categories of FLC: cohort-based and topic- or issue-based. “Cohort-based FLCs address the teaching, learning, and developmental needs of a group of faculty and/or staff that has been particularly affected by isolation, stress, neglect or the chilly climate in the academy” (Cox, 2004, p. 8). The FLC members shape the curriculum, which includes a vast array of teaching and learning topics (Cox, 2001). Topic-based FLCs were devised to address specific teaching or learning needs, issues, or opportunities (Cox, 2004). According to Cox (2004), topic-

based FLCs “offer membership and provide opportunities for learning across all faculty ranks and cohorts and make appropriate professional staff members available to focus on a specific theme” (Cox, 2004, p. 9). Topic-based FLCs address both new and existing issues and may require one or more years’ service to adequately address the concerns, at which time the topic-based FLC ends (Cox, 2004). The topic-based structure of the FLC fits best with the FLC initiative to be implemented in the Office Administration Department of the two-year community college that is the site of this study.

**FLC goals and outcomes.** Cox’s (2003, 2004) work at Miami University of Ohio is the model on which this discussion of the goals and outcomes of FLCs, the evidence that FLCs work, the qualities necessary for community in FLCs, and the components of FLCs is based. The list of long-term goals for FLC programs developed by Miami University include “building an interdisciplinary, collegial community of teachers and learners, providing a forum for interdisciplinary collaboration in teaching and scholarship, promulgating a philosophy for teaching that reflects the complexity of the teaching practice, enhancing the scholarship of teaching and its application in the classroom, encouraging reflective practice, and increasing the value and importance of quality teaching” (Glowacki-Dudka & Brown, 2007, p. 29). According to Cox (2004, p. 10), the goals of an FLC program at most institutions, including Miami University, include:

- Building university-wide community through teaching and learning
- Increasing faculty interest in undergraduate teaching and learning
- Investigating and incorporating ways that diversity can enhance teaching and learning

- Nourishing the scholarship of teaching and its application to student learning
- Broadening the evaluation of teaching and the assessment of learning
- Increasing faculty collaboration across disciplines
- Encouraging reflection about general education and the coherence of learning across disciplines
- Increasing the rewards for prestige of excellent teaching
- Increasing financial support for teaching and learning initiatives
- Creating an awareness of the complexity of teaching and learning

Additionally, each FLC has its own specific objectives (Cox, 2001). Thus, the objective of the Office Administration FLC was to promote the SoTL through an FLC venue to create a learning-centered institution.

**Qualities necessary for and components of FLCs.** Community plays a vital role in an FLC (Cox, 2004). Faculty learning community program directors across institutions have identified ten qualities (see Appendix A) essential to the structure of an FLC in order to nurture community (Cox, 2004).

According to Cox (2004), the FLC program developers also identified 30 components of an FLC (see Appendix B). The components chosen for an FLC are the responsibility of the FLC members and depend on the FLC type and the organization (Cox, 2004).

**FLC activities.** Cox (2001) identified similarities in faculty and students in that both groups learn by reading, experiencing, reflecting, and collaborating with others. Activities for FLCs vary, but common activities have included seminars on teaching and learning, national conferences and retreats, teaching projects, and the SoTL (Cox, 2001).



According to Cox (2001), FLCs create an environment that encourages discussion without evaluation, allowing trust and respect to be established within the group and opens participants to the concerns of others. FLC seminars have been used to create an environment where faculty can express their teaching concepts and engage in reflection with their peers (Cox, 2001). Attendance at national conferences has allowed members the opportunity to learn about national policies and issues in higher education from other community members as well as nationally recognized teacher scholars, and provides opportunities to present on teaching and/or learning topics (Cox, 2001). Members of FLCs have participated in self-designed learning programs, such as teaching projects, for which they are compensated, and share the projects with their colleagues at campus-wide seminars (Cox, 2001). Cox (2001) stated that each FLC participates in activities designed to initiate its members to a new discipline: the SoTL. Such activities include researching the scholarship of teaching, sharing their teaching project with the FLC first and then presenting their project on an institution-wide basis (Cox, 2001). Through these activities, participants become familiar with and interested partners in the scholarship of teaching (Cox, 2001). In addition, it allows faculty to gain support from their community and helpful perspectives from their diverse audience (Cox, 2001).

**Compensation and rewards.** Typically, faculty who have participated in FLCs were compensated in one of two ways at Miami of Ohio (Cox, 2001). In cohort-based FLCs, faculty are allowed release time, paid at the adjunct rate, for a course during one semester (Cox, 2001). In topic-based FLCs, participants were paid honorariums in excess of \$1,000 to cover professional expenses (Cox, 2001). FLC coordinators can receive release time for one course for a semester or an entire school year, along with the

honorarium available for his/her particular community (Cox, 2001). The participants in the Instructional Technologies FLC were approved by the Department Chair and Divisional Dean. However, the members were not allowed release time or compensation by Gaston College. Rewards for participants included improved teaching practice and student learning. In addition, the members were allowed to use the experience toward their nine hours professional development required per academic year. The researcher provided refreshments for the FLC members along with small tokens of appreciation.

**Applications for FLC membership.** Prior to participation in an FLC, faculty must obtain approval from their chair, dean, and other applicable directors (Cox, 2001). Common requests for FLC application forms include items such as:

- A brief description of current teaching responsibilities
- A description of involvement in innovative teaching activities (i.e., efforts to improve teaching, development of curricular materials, etc.)
- Indication of two or three pressing needs regarding teaching and learning
- A description of reasons for wanting to participate in the community
- An area of interest they may wish to pursue as part of the individual teaching project
- A list of contributions that you expect to bring to this community (for example, particular teaching experience)?
- A brief statement of your teaching philosophy

The application for membership in the Instructional Technologies FLC was created using the preceding suggestions along with the application used by the Indiana University-Perdue University Indianapolis (IUPUI) FLC Teaching and Learning with

Mobile Tablets: Exploring Innovative uses of the Apple iPad (2011). The application is shown in Appendix C. Participation in the FLC was voluntary; however, the participants were approached for membership based on their commitment to quality teaching, creativity, openness to new ideas, potential for contributions to the community, experience, and diversity of discipline.

**FLC startup and leadership.** Cox recommended that developers begin with a single FLC “in order to gain experience, fit the community approach into their campus culture, and build support by providing assessment results” (Cox, 2001, p. 83). Gaston College had not previously utilized FLCs as a professional development tool, so this was a new venture. The researcher hoped that this initiative would be successful and that FLCs would be implemented as a professional development tool at Gaston College.

Typically, according to Cox (2001), faculty members who have previously served on FLCs serve as coordinators for future FLCs. Miami of Ohio’s Website for Developing Faculty and Professional Learning Communities (FLCs): Communities of Practice in Higher Education (Cox, n.d.b, para 13), required an FLC facilitator to be a teacher-scholar, well-respected, be familiar with the literature on teaching and learning in higher education, have good consulting abilities, and be a community builder.

**Assessment.** Gaston College has been accredited by the Southern Association of Colleges and Schools (SACS). In addition, the Business and IT Division, of which the Office Administration Department was a member, was also accredited by the Accreditation Council for Business Schools and Programs (ACBSP). Accreditation agencies have looked more closely at effective faculty development support offered by institutions (Cox, n.d.b). Cox (n.d.b) noted that assessment can be used in accreditation

reports, and provides evidence of success when a strong case for continued funding and support is needed. Cox (2001) required each FLC participant to prepare both mid-year and final reports on the impact of the FLC on their teaching and learning to provide evidence of success and ways to improve various aspects of the FLC.

**Evidence that FLCs work.** According to Cox (2004), “evidence that student and faculty learning is improved through FLCs was found at Miami University in the analysis of student learning appearing in the participants’ course mini-portfolios, in the results of teaching projects, and in final reports” (p. 11). Past FLC participants were surveyed in order to document evidence of improvement in undergraduate learning outcomes and reported:

1. How student learning in their courses changed
2. How they knew learning had changed
3. The processes or approaches that resulted in more and better learning
4. Teaching project categories and the level to which learning changed in response to those projects
5. How faculty participation in an FLC changed their attitude and affected student learning (Cox, 2004).

Others have also noted similar findings through FLC initiatives. Layne et al. (2002) found that participation in FLCs impacted the institution in the following ways:

1. Validates intuitive faculty knowledge about student learning
2. Aids in building a foundation for future faculty interaction about student learning
3. Furnishes collaborative experience

4. Builds community
5. Produces changes in teaching and learning
6. Promotes further research based on findings
7. Allows participants to engage in service to themselves and to peers

Snow-Gerono (2005) found that participation in FLCs 1) promotes community and appreciation for dialogue and communication, and 2) promotes receptiveness to change and culture of inquiry through problem-posing. Gordon and Foutz (2015) found that participation in FLCs 1) provides faculty support through partnership building and institutional efforts, 2) improves pedagogy through creation of or implementation of new or additional pedagogical strategies, and 3) improves student performance and encourages participation.

### **The Scholarship of Teaching and Learning**

The Scholarship of Teaching and Learning (SoTL) was introduced by Ernest Boyer in his 1990 publication “Scholarship Reconsidered” (Gurung & Schwartz, 2010). Boyer sought to “move beyond the tired old ‘teaching versus research’ debate and give the familiar and honorable term ‘scholarship’ a broader, more capacious meaning, one that brings legitimacy to the full scope of academic work” (1990, p. 16). He actually created an academic model advocating four types of scholarship (The Boyer Model, 2013). Boyer “drew analytical distinctions between the scholarship of discovery, the scholarship of integration, the scholarship of application, and the scholarship of teaching” (Prosser, 2008, p. 1). Boyer defined the scholarship of discovery as traditional research; he identified this as the “center of academic life and crucial to an institution’s advancement” (The Boyer Model, 2013). Boyer built on that foundation by including the scholarship of integration, which he defined as making connections within and across

disciplines and performing research amid a larger intellectual pattern (The Boyer Model, 2013). According to Western Carolina University, “engaging in research that works to alleviate social problems became a part of the scholarship of application, and systematic reflection on teaching and learning formed the heart of the scholarship of teaching and learning” (The Boyer Model, 2013). Boyer failed to provide a clear, operational definition of the four aspects of scholarship (Emery, 2012). Boyer has been criticized for the lack of definition of the terms (Atkinson & Bowden, 2007; Boshier, 2009). Those criticisms do have merit in that, more than a decade after Boyer’s untimely death in 1995, academe was still struggling to define the scholarship of teaching and learning and apply it to practice (Bowden, 2007). Boyer encouraged academe to broaden its definition of scholarship in “order to reward faculty for the work they do outside of the narrower conventional boundaries of research, teaching, and service” (The Boyer Model, 2013, para 1). Boyer’s work served to promote a movement to define the scholarship of teaching and learning and to increase the knowledge base about teaching and learning (Atkinson, 2001). The idea of making teaching more highly valued and rewarded was well received (Atkinson, 2001). However, failure to provide “a clear definition of the scholarship of teaching has been a major barrier to restructuring the academy to make teaching a more highly valued activity” (Atkinson, 2001, p. 1221).

Although Boyer’s work on SoTL is probably best known, SoTL and related concepts have been considered by many in the field of higher education for years (McKinney, 2004). SoTL has continued to increase in prominence in the higher education arena as evidenced by the growing number of publications, conferences, and programs dedicated to promoting it (McKinney, 2004). Changes in the higher education

environment such as “a renewed focus on teaching, increasing diversity of the student body, rapid adoption of new instructional technologies, new knowledge about learning and the brain, and additional pressures for the use of assessment data to determine student learning outcomes” have placed greater emphasis on SoTL (McKinney, 2004, p. 4). Such changes have served as a reminder that more needs to be known about students and how, why, and when they learn (McKinney, 2004).

Many in the higher education field have contended that SoTL, along with scholarly teaching, precipitates improved teaching and learning (Potter & Kustra, 2011). This assumption has seized higher education and is shaping practice (Potter & Kustra, 2011). McKinney (2004) stated that SoTL could be used to improve student learning and development by creating an up-to-date knowledge base about teaching and learning and stimulating networking, research, discussion, and action related to improved teaching and learning.

It could be inferred from the preceding statements that scholarly teaching and SoTL are related concepts. However, it was important to define the terms to ensure that everyone had the same understanding of them. Many in the literature have attempted to define SoTL, but defining it in terms that make sense to everyone has proven to be problematic (McKinney, 2004). McKinney (2003, p. 2) defined the scholarship of teaching and learning (SoTL) as “the systematic study of teaching and/or learning and the public sharing and review of such work through presentations or publications.” Shulman (2000) stated that the scholarship of teaching was established when teacher’s work becomes public, peer-reviewed, critiqued, and exchanged with other members of

professional communities so that they could build on that work. Potter and Kustra (2011, p. 2) defined SoTL as:

the systematic study of teaching and learning, using established or validated criteria of scholarship, to understand how teaching (beliefs, behaviours, attitudes, and values) can maximize learning, and/or develop a more accurate understanding of learning, resulting in products that are publicly shared for critique and use by an appropriate community.

Potter and Kustra (2011) defined scholarly teaching as “teaching grounded in critical reflection using systematically and strategically-gathered evidence, related and explained by well-reasoned theory and philosophical understanding, with the goal of maximizing learning through effective teaching” (p. 3). Kincaid (2009) defined scholarly teaching as “instruction well-grounded in disciplinary content and understanding of how people learn, and that is designed, implemented, and assessed to optimize student learning” (p. 3). According to Cox (2001), Miami of Ohio’s FLC Program interpreted scholarly teaching and the scholarship of teaching and learning as separate. Richlin (2001) found scholarly teaching and the scholarship of teaching to be interconnected, differing in purpose and outcome. Richlin compared and contrasted the terms as follows:

The purpose of scholarly teaching is to impact the activity of teaching and the resulting learning, whereas the scholarship of teaching results in formal, peer-reviewed communication in the appropriate media or venue, which then becomes part of the knowledge base of teaching and learning in higher education (as cited in Cox, 2003, p. 165).



However, Potter and Kustra (2011) noted a clear distinction between the two with each having distinct objectives: scholarly teaching directly affects individual teaching and learning experiences while SoTL contributes to a public knowledge base on teaching and learning (Potter & Kustra, 2011). Another conceptualization was that scholarly teaching concentrates on effective teaching while SoTL focuses on both effective teaching and student learning (Potter & Kustra, 2011). Although the terms are related, they are dissimilar.

According to McKinney (2004), scholarly teaching encompasses employing a scholarly approach to teaching and reflecting on one's teaching, which incorporates the use of classroom assessment techniques, systemic course design, course revision, examination of teaching issues with coworkers, experimentation with new teaching techniques, and evaluation and application of current teaching and learning methodologies in one's discipline. McKinney (2003) noted a close relationship between scholarly teaching and reflective practice. SoTL surpasses scholarly teaching in that it comprises methodical study of teaching and/or learning and is coupled with distribution and assessment of said work through presentations or publications (McKinney, 2004). Thus, according to Potter and Kustra (2011), both are expected to enrich teaching and thereby enhance learning, but SoTL seeks insight, and makes that insight available to others through public dissemination, which can then be used by scholarly teachers to inform and improve teaching practice. Thus, scholarly teaching would be categorized under teaching, and SoTL would be categorized under research/scholarship (McKinney, 2004).

The mission of the community college is teaching, and teachers in the community college setting should practice scholarly teaching to fulfill the mission of the community college. Community college teachers often consult with others as to materials used in specific courses. Yet, the individual teacher designs his/her course, decides what to teach, how to teach it through a trial and error process, and evaluates effective teaching through the process of reflection. This is true of the community college in general, and of Gaston College in particular. Scholarly teaching is rewarded in institutions that promote teaching, such as community colleges, and SoTL is rewarded in institutions such as universities or research institutions that promote research and scholarship. Consequently, community college teachers would be classified as scholarly teachers practicing scholarly teaching. However, the nature of the community college and its mission prohibits teachers from practicing the scholarship of teaching and learning beyond the teachers' individual classroom or institution.

**How does SoTL apply to the community college?** The scholarship of teaching and learning has been found to help advance the main function of community college faculty, which is teaching (Twombly & Townsend, 2008). By its very nature, the SoTL forum has assisted in the preparation of outstanding curriculum and exposed opportunities to more methodically reflect upon and share teaching advances (Donnelli, Dailey-Hebert, & Mandernach, 2010). SoTL has advanced teaching within the community college where teaching—not scholarship—is the main focus in distinct ways. First, theory informs practice in traditional research (Sperling, 2003). Sperling (2003) discussed challenges community colleges encounter in implementing a scholarship of teaching by linking theoretical discussions inspired by the Carnegie Teaching Academy

to practice in community colleges. The Carnegie Teaching Academy's focus on SoTL provided a new manner in which "to consider effective teaching—one that informs and improves teaching practice by connecting teaching and learning research with classroom teaching" (Sperling, 2003, p. 593). Acknowledging scholarship as the bridge between 'learning theory and classroom practice' enables faculty to view themselves as professionals who can "utilize research to enhance practice and researchers who can contribute to their profession through significant practice-based research" (Sperling, 2003, p. 593). Sperling noted that "few community college instructors are grounded in learning theory, and, as a result, there is little intentional application of what is known or postulated about the teaching-learning process to actual classroom practice" (2003, p. 596).

SoTL can help faculty expand their perception of teaching by incorporating learning theory and classroom practice (Sperling, 2003). For example, Middlesex Community College faculty addressed a particularly frustrating topic common to community college faculty—motivation—in order to bring scholarship to the issue. They asked questions about motivation and referred to theoretical literature on motivation, and in so doing, they used theory to understand the topic better and inform practice (Sperling, 2003).

Second, scholarship matters. SoTL allows community college faculty to fulfill their academic citizenship responsibilities within their own department or institution, their discipline, and in the higher education profession through a process of review, self-reflection, and peer review (Sperling, 2003). Sperling (2003) referred to the traditional research model wherein theory informs practice and described scholarship as a

systematic, linear process in that institutions apply theory, and in turn, that theory informs practice. She contended that research institutions best model the understanding of scholarship in regard to traditional research in that “they generate knowledge, the knowledge is shared and shaped by peer review and discourse, it is applied both within the academy and outside, and that knowledge both directs and frames the way we understand what happens—or can happen—in practice” (2003, p. 595). Prager (2003) discussed the eradication of scholarship on the part of community college faculty and administration. According to Prager (2003), because of their large representation in the American academe, participation by community college faculty in academic discussions has ramifications for academe en masse. The value of scholarship is its effect on an external audience, yet existing scholarship standards in the community college exclude faculty from participating in scholarly discourse outside of their immediate organizations (Prager, 2003). Prager (2003) discussed community colleges’ absence from national discussions over the last several decades which has reshaped undergraduate education in the liberal arts and noted the loss to them, their students, and to higher education.

With its focus on teaching as opposed to scholarship, as defined above, the established mission of the community college discourages faculty from connecting to the academic community through scholarship and embracing the collegiate community’s values (Prager, 2003). Many community college faculty and administrators participate in bodies who are equally concerned with curriculum and instruction in the community college (Prager, 2003). However, they lack representation on the boards of academic organizations or publications concerned with undergraduate teaching (Prager, 2003). Prager (2003) contended that community colleges have the potential to greatly influence

external disciplinary bodies but have yet to do so, which is unfortunate for higher education where the first two-years of undergraduate education is concerned. According to Prager (2003), community colleges must reconceptualize the community college mission to embrace externally oriented scholarship, as it is the vehicle that will allow community colleges to have their voice in higher education.

**How can faculty improve teaching practice through SoTL?** Kreber and Cranton (2000) contended that the scholarship of teaching included continuous learning about teaching and the display of teaching knowledge and offered their own interpretation of SoTL and its emphasis on reflective practice. They proposed that the scholarship of teaching was both a process and an outcome encompassing both learning about teaching related to student learning and knowing about teaching (Kreber & Cranton, 2000). Faculty can improve their teaching practice by gaining knowledge about teaching and learning (Kreber & Kanuka, 2006). Kreber and Cranton (2000) suggested that individuals who practice SoTL participate in reflection in three different knowledge domains with respect to teaching. The first knowledge domain related to knowledge of collective higher education goals and purposes along with the faculty members' course-specific goals and purposes (Kreber & Kanuka, 2006). The second knowledge domain related to knowledge of student learning and development in correlation to the objectives identified (Kreber & Kanuka, 2006). The third knowledge domain related to knowledge of teaching strategies, learning activities, and evaluation techniques suitable to the achievement of the desired learning outcome (Kreber & Kanuka, 2006). Kreber and Kanuka (2006) contended that academics build, authenticate, and adjust their knowledge

about why, what, and how they teach as they partake in reflection in each of the three interconnected domains which may result in changes in practice.

Kreber and Cranton (2000) recognized reflection as an important dimension of SoTL. They contended that knowledge is constructed through three levels of reflection—content, process, and premise (Kreber & Cranton, 2000). Content reflection attempts to explain the teaching process (Kreber & Cranton, 2000). Content reflection addresses technical knowledge about course design, instructional materials, and teaching methods and is also known as ‘instructional knowledge’ (Kreber & Cranton, 2000). Content reflection helps faculty advance knowledge and skills such as developing teaching materials, facilitating discussion, learning a variety of instructional methodologies, organizing instruction, preparing lectures, writing learning objectives, and constructing valid tests (Kreber & Cranton, 2000).

Process reflection questions the legitimacy of instructional knowledge by directing reflection on the strategies or procedures which generated it (Kreber & Cranton, 2000). Process reflection is concerned with “how to teach the content of the discipline, how to assist students in solving the learning tasks associated with understanding concepts within the discipline, and how to facilitate critical thinking and self-directed learning beyond the discipline” (Kreber & Cranton, 2000, p. 480). Pedagogical knowledge is related to how people learn and how that learning can be facilitated and is acquired through process reflection (Kreber & Cranton, 2000). According to Kreber and Cranton (2000), process reflection helps faculty develop pedagogical knowledge and skills which consists of the ability to:

- Motivate students with different learning styles

- Utilize assorted teaching materials
- Deliver interesting lectures
- Enable collaboration among students
- Aid students in overcoming learning difficulties
- Nurture critical-thinking skills
- Be cognizant of specific techniques for cultivating learning
- Provide meaningful feedback in a timely fashion
- Judge the quality of specific techniques

Premise reflection investigates the quality and practical significance of teaching (Kreber & Cranton, 2000). In premise reflection, teachers inquire as to why they teach the way they teach and participate in crucial reflection on practice (Kreber & Cranton, 2000). The knowledge derived from premise reflection is known as curricular knowledge (Kreber & Cranton, 2000). Curricular knowledge explores the objectives of and basis for a course, attempts to know how courses combine to form a program, and scrutinizes individual opinions held on the purpose of higher education (Kreber & Cranton, 2000). According to Kreber and Cranton (2000), curricular knowledge consists of the ability to assess the quality of course goals, define how a course fits into an existing program, describe how a course can improve students' knowledge, and convey how a course may influence students' learning skills.

Kreber and Cranton (2000) identified instructional, pedagogical, and curricular knowledge as three interconnected knowledge domains about teaching. According to Kreber and Cranton (2000, p. 481), "Instructional knowledge is concerned with the strategies we use in teaching; pedagogical knowledge is concerned with understanding

student learning; curricular knowledge is concerned with why we teach the way we teach.”

Kreber and Kanuka (2006) concluded that process and premise reflection held the most promise for advancing teacher development. Kreber and Cranton (2000) developed the following model of SoTL, shown in Figure 1, for the purpose of promoting the development of scholarship in teaching.

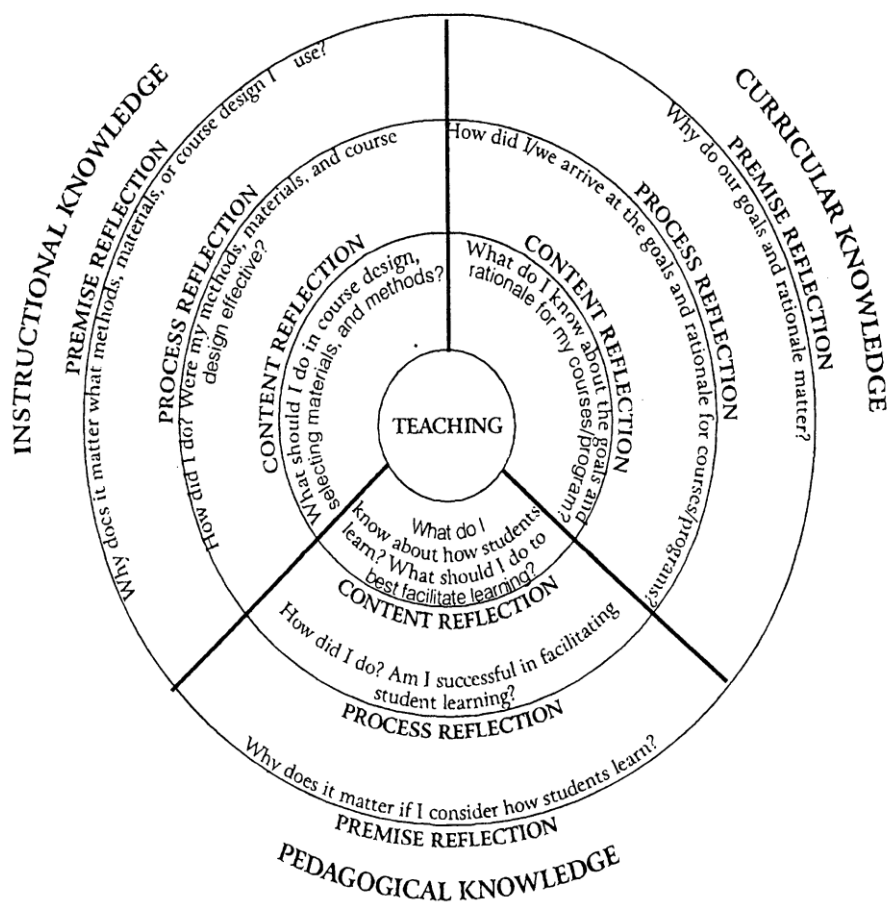


Figure 1. Kreber and Cranton's model of the scholarship of teaching. Reprinted from "Exploring the scholarship of teaching," by C. Kreber and P. A. Cranton, 2000, *The Journal of Higher Education*. Copyright 2000 by *The Journal of Higher Education*.



Kreber and Cranton's (2000) model suggested that reflection is informed by two sources of knowledge: 1) knowledge developed by faculty through individual and shared experiences of teaching, and 2) knowledge obtained through pedagogical research about current teaching and learning methods.

**FLCs and the SoTL.** Closely related to the concept of faculty learning communities is the concept of the scholarship of teaching and learning. Richlin and Cox (2004) identified the scholarship of teaching and learning as a chief stimulus for and the hub of faculty learning communities. Richlin and Cox (2004) contended that faculty learning communities provide an excellent format to help faculty members advance scholarly teaching and generate the scholarship of teaching and learning, because of the profound learning that can take place thorough participation in an FLC.

Cox (2003) identified five elements as key to the success of the SoTL including regular group meetings, release time, senior faculty mentors, individual projects, and retreats and conferences. In the context of the existing FLC-SoTL relationship, these elements imparted 1) community, 2) scholarly teaching, 3) experience and advice, 4) potential SoTL, and 5) a platform for making the SoTL public (Cox, 2003). Seven of the thirty components—component numbers 18-24—of an FLC are precisely related to increasing the SoTL (See Appendix B) (Cox, 2003).

Miami University established ten incremental steps that promote the development of SoTL in an FLC including: FLC membership application, early planning for the FLC, opening, mid-year, and closing seminars and/or retreats, participants preparing for and starting the year, working on projects during the year, presentations, and publication

(Richlin & Cox, 2004). The following elements are evidence that FLCs endorse effective development of the SoTL (Richlin & Cox, 2004, p. 133):

- Support and safety provided by a community that encourages innovation and risk taking
- A sequence of individual and group developmental steps taken by and shared with the FLC
- The availability of forums for individual and community presentations of project results
- Mentoring of new FLC participants by graduating members
- Transdisciplinarity: multiple perspectives on SoTL
- Reduction of the conceptual isolation of SoTL from discovery scholarship in the disciplines
- Opportunities to repeat the FLC experience in a new FLC

### **FLCs, SoTL, and the Learning Paradigm**

Traditionally, community colleges have been considered ‘teaching colleges’ because of the mission of community colleges which is to teach—and instructors do not conduct research (Goto, Kane, Cheung, Hults & Davis, 2007). The separation of teaching and research is meant to emphasize the role of teaching (Goto et al., 2007). Tagg (2003) implied, however, that the focus in community colleges should be on the needs of learners as opposed to on teaching, and he contended that community colleges were more appropriately described as ‘learning colleges’. Barr and Tagg (1995) discussed the traditional model governing colleges in which colleges are recognized as institutions that exist to deliver instruction. They contended, however, that colleges were

institutions that exist to generate learning (Barr & Tagg, 1995). In fact, Barr and Tagg (1995, p. 12) rejected the mission of the community college as instruction, and instead identified the mission as “producing learning with every student by whatever means worked best”. American higher education has been in a state of transition for over 30 years (Barr & Tagg, 1995; Saulnier et al., 2008). According to Barr and Tagg (1995), this transition in the educational arena is now known as the Learning Paradigm.

Historically, in American colleges the instructor has dominated the classroom in a lecture format whereby knowledge is delivered to students through instruction (Barr & Tagg, 1995; Saulnier, et al., 2008). However, the focus has been transferred from the instructor to the student. It is no longer the instructor’s place to deliver knowledge; it is the student’s responsibility to construct their own knowledge (Barr & Tagg, 1995; Saulnier, et al., 2008). This is referred to as the ‘Learning Paradigm’ (Barr & Tagg, 1995). “In the learning paradigm, a college’s purpose is not to transfer knowledge but to create environments and experiences that bring students to discover and construct knowledge for themselves, to make students members of communities of learners that make discoveries and solve problems” (Saulnier, et al., 2008, p. 170). Unfortunately, the learning paradigm has not become part of the institutional culture in American higher education (Saulnier, et al., 2008).

This paradigm shift has not permeated very deeply into normal institutional practice (Saulnier et al., 2008). The reason therefore, according to Barr (1998), is that the transition is not just a mere change—it is, in fact, a transformation. Barr (1998) cited reasons for the hesitancy of individuals and institutions to make the change to the learning paradigm. He stated that individuals were cautious in embracing the paradigm

because it demands a new way of thinking, which he equated to learning a foreign language for individuals (Barr, 1998). Barr (1998) stated that, making the transition and putting it into operation required one to think within the paradigm rather than think about it. Barr (1998) stated that adoption of and conversion to the learning paradigm would require that the institution exchange providing instruction for producing learning. He suggested that student learning was the responsibility of both the individual and the institution, and that the mission of both must be to generate learning and student success (Barr, 1998).

In order to accomplish this transition, O'Banion (1997) called for a reorganization of existing structures of isolation to accommodate a structure of collaboration. Tagg (2003) proposed replacing formats of traditional instruction to formats that promote the learning paradigm. This would require a change in organizational culture. Cox (2001) contended that FLCs have the ability to affect campus culture. Cox (2004) contended that FLC programs would both form associations in institutions adequate to support a learning organization, as well as vanquish the isolation in higher education. FLCs, by definition, nurture the scholarship of teaching and emphasize activities that advance teaching and learning (Cox, 2003). In addition, eight of the ten goals of an FLC involve teaching and learning (Cox, 2003). SoTL has placed prominence on what good teaching is about: student learning (McCarthy, 2008). Hutchings and Shulman (1999) proposed that all faculty have a duty to teach well, engage students, and promote student learning. SoTL has three essential characteristics: it makes teaching public, open to evaluation, and in a form that others can build on (Hutchings & Shulman, 1999). Hutchings and Shulman (1999, p. 12) added a fourth attribute of SoTL: "it involves question-asking,

inquiry, and investigation, particularly around issues of student learning.” Since both FLCs and SoTL emphasize teaching and student learning, the implementation of an FLC is the first step toward changing institutional culture and shifting to a learning paradigm.

### **FLCs and Technology**

According to Cox (2003), it has been substantiated that FLCs are effective ‘deep learning’ configurations which incite faculty to explore, attempt, evaluate, and implement new techniques, such as utilizing appropriate technology. “Moving a group of faculty to expand their use of technology beyond productivity tools and motivating them to advance to less known and less comfortable use of it requires a willingness to adopt change and to expose their lack of knowledge” (Schlitz et al., 2009, p. 134). A topic-based FLC may function as an enabling factor to encourage faculty to integrate technology into the classroom (Schlitz et al., 2009). This study implemented technology as an instructional tool through the topic-based FLC venue, within the Office Administration Department.

Teaching at the community college has been, by its very nature, a solitary profession. Instructors are separated from their colleagues most of the time as they are in their particular classes at various times and with various schedules. Professional development opportunities are available, but they are mostly short discussion group sessions as opposed to structured, intensive training. Faculty learning communities have addressed issues such as the need for community in education and the human need for belonging and relation, the issue of collegial isolation of faculty, and FLCs can serve as professional development opportunities. Faculty learning communities function on a deeper level than a single professional development session, as participation is for an

extended period of time in comparison to many other professional development opportunities that meet for an hour or two on a one-time basis.

FLCs are one tool for transforming the institution of higher education into a learning organization. However, in order to truly accomplish this transformation, educators must be cognizant of a new, emerging landscape in the educational arena—the entrance of a new generation of students into higher education. Current college students are members of both the millennial and digital generations, and they expect technology to be a part of their learning experience (Nugent et al., 2008). With the Internet, social media, Web-based tools, learning management systems, and demands for increased online learning opportunities; digital educational technology is situated to play a substantial part in the lives and employment of both students and faculty in higher education (Nugent et al., 2008). Prensky (2005) confirmed what many in the educational arena have already realized: the world is a different place and so are current students, educational tools and resources, and required skills and knowledge. Yet, “educators have slid into the 21<sup>st</sup> century—and into the digital age—still doing a great many things the old way” (Prensky, 2005, p. 8). Recent research indicates that educators, policymakers, and researchers are still struggling to find instructional methods to effectively teach the digital/millennial generations but agree that there is no single method that will work (Considine, Horton, & Moorman, 2009; Kirschner & van Merriënboer, 2013).

Today’s students are digital natives—having grown up with technology—they no longer represent the people the educational system was invented to teach (Prensky, 2001). Prensky (2005) contended that students today are so different from previous generations that instructors can no longer use 20<sup>th</sup> century knowledge or training as an indication of

what is best for them pedagogically. Students today have distinct perceptions and beliefs about the function of technology in their learning—and they choose to learn in an atmosphere that supports activity and experience and which promotes instant engagement (Nugent et al., 2008). The need for faculty to incorporate technology into the classroom has increased as digital natives continue to enter the college (Schlitz et al., 2009). Participation in an FLC can assist faculty in this endeavor by providing information and support in employing digital technology tools, acquiring new skills, and sharing significant instructional methodologies (Nugent et al., 2008). Specifically, FLCs can “enhance the integration of technology within the curriculum above and beyond the use of productivity tools” (Schlitz et al., 2009, p. 133). Today’s students are immersed in technology. Educators today, therefore, must take advantage of their fondness for technology and utilize it to restructure education (Rosen, 2011).

### **Instructional Technologies**

The subject for this topic-based FLC was instructional technologies. Seels and Richey (1994) defined instructional technology as the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning. Recently, the Board of Directors of the Association for Educational Communications and Technology (AECT) approved a new definition of the field: “Educational Technology is the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources” (Richey, Silber, & Ely, 2008, p. 24). The new definition replaced the term ‘Instructional’ with the term ‘Educational,’ thus, the terms are interchangeable. Makki and Makki (2012) reiterated that the terms are often used

interchangeably because they share a mutual interest in the procedures of human learning and teaching. The Commission on Instructional Technology defined the term as:

The media born of the communications revolution which can be used for instructional purposes alongside the teacher, textbook, and blackboard... [as well as]... a systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communications, and employing a combination of human and non-human resources to bring about more effective instructions (as cited in Makki & Makki, 2012).

Instructional technologies were the focus of this FLC because “widespread use of effective pedagogical practices must be at the core of any agenda to promote student success” (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006, p. 66). Educators must use technology to stimulate student engagement to exploit the power of computers and instructional technology as a vehicle for student success in college (Chen, Lambert, & Guidry, 2010). Kuh et al. (2006) focused on the use of instructional technology in reorganizing the teaching and learning environment to shift the focus from teaching to learning. Chen et al. (2010) cited several ways in which the use of instructional technology can help promote learning including:

1. Stimulating critical-thinking
2. Utilizing higher order skills such as problem solving, collaboration, and stimulation
3. Engaging students by expecting them to work collaboratively



However, the process of promoting learning is not automatic; it requires very good instructional technology and/or very good teaching. Finally, the authors suggested a positive relationship between a student's use of computers and other information technologies.

In keeping with the characteristics of an FLC, the exact instructional technologies to be utilized in the Office Administration FLC were shaped by the participants to include topics of interest to them (Cox, 2001). In addition to common FLC goals, the participants identified specific objectives for the committee (Cox, 2001).

### **Theoretical Framework**

The theoretical framework for this study was based on a model created by Chism (2004). This model was designed to engage faculty in using instructional technologies. Instructional technology and the use thereof in the classroom was the topic of the faculty learning community for this study. Chism's model was a compilation of several theories of personal development in higher education teaching, informed by years of deliberation that is often accredited to John Dewey, a philosopher and educator; Kurt Lewin, a social psychologist; David Kolb, a psychologist; and Donald Schön, an organizational theorist (Chism, 2004). Community college faculty are often trained in their discipline but have little experience with educational or pedagogical theory or the practice of teaching (Jones, 2008). Without methodological training, they focus on content mastery and a conventional lecture model, which fails to meet the needs of the diverse population of students in the community college (Jones, 2008). In teacher development models, faculty advance through stages on the path to better teaching that focus on self, subject, student and learning, and each new stage provides insight into teaching and learning and

increased understanding of the learning process (Jones, 2008). Chism's (2004) model focused on faculty as problem solvers who learn how to teach through experimentation; i.e., trial and error. According to Chism (2004), the investigation into how higher education faculty advance as teachers depends on both personal growth and the environment in which the development occurs. Her model depicts faculty learning as an all-inclusive process that can increase the probability of success in learning about teaching.

Chism's model to engage faculty in instructional technologies is shown in Figure 2.

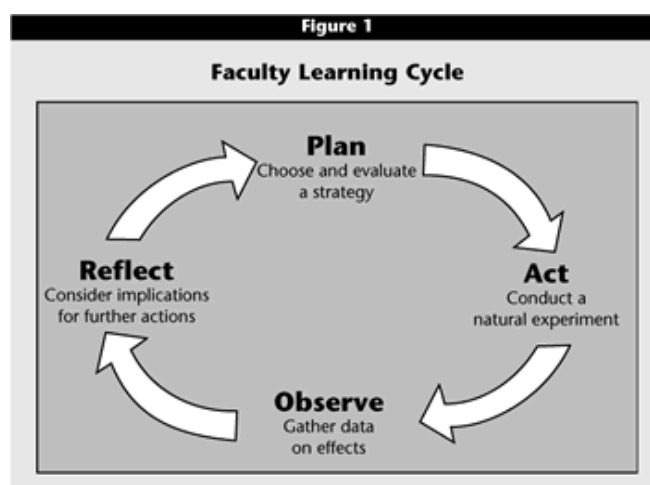


Figure 2. Chism's model to engage faculty in instructional technologies is the conceptual framework for this study. This figure illustrates the action/reflection process for the individual FLC participant's strategy to implement instructional technologies in the classroom. Reprinted from "Using a framework to engage faculty in instructional technologies," by N. Chism, 2004, EDUCAUSE. Copyright 2004 by EDUCAUSE. Reprinted with permission.

Chism (2004) contended that "faculty learn to teach by engaging in cycles akin to the steps that have been described in literature on action research, including planning a course of action, enacting their plans, observing the effects, and reflecting on the results

for the purpose of informing a new cycle” (p. 40). A crucial element of the cycle is that faculty evaluate their teaching and its effect on student learning and, through reflection, implement change in terms of success or failure of the teaching behavior (Jones, 2008). For instance, an instructor may consider various approaches to aid learning and try one or more. The faculty member will discern the effect on student learning, engage in reflection on the process, and decide whether this tactic should be utilized in the future, modified, or discarded (Chism, 2004). Thus, reflection is also vital to faculty learning and development (Shulman & Shulman, 2008). Faculty expand and hone their teaching routines and practice through this process.

According to Chism (2004), this manner of learning is powerful because it rises from a felt need—i.e., experimentation authenticates the learning and the observation and reflection processes guarantee that the innovation is scrutinized and tailored to the need. Given the cyclical character of this model, the need evolves from the reflection of the previous cycle, as faculty have analyzed and reflected upon bygone actions (Chism, 2004). “Hence, the cycles can be thought of as parts of an ongoing spiral, occurring frequently and with intensity during times of peak development and slowing down during times of routine practice” (Chism, 2004, p. 40). The process is much like the learning paradigm in that it ensures that learning is authentic by emphasizing the learner in the instructional process rather than the instructor. The experimentation with assorted delivery methods verifies that students are learning as opposed to the teacher conveying the concept in a certain way and proceeding to the next subject without concern as to whether student learning was accomplished (Barr & Tagg, 1995).

The model in Figure 3 illustrates that this spiral is positioned within the framework of the campus and the faculty members' specific disciplinary unit (Chism, 2004). The faculty member's workplace setting is a very important consideration in this model. The institution represents the central systems of standards and assumptions regarding teaching that are disseminated through policies, standard practices, administrator/peer announcements and actions, and organizational structures (Chism, 2004). The culture of the institution can serve as either a medium for teaching and learning improvement or a barrier for effective change (Zhu & Engles, 2014). It can either cultivate personal development in teaching by encouraging and rewarding good teaching, or it could instigate faculty opposition to development (Chism, 2004). The institution must change institutional culture to reflect the importance of teaching in order to improve teaching and learning (Jones, 2008).

Improved teaching and learning depends on both individual impetus (the faculty member) and organizational support and whether these factors work in tandem or autonomously. Faculty could possess an internal drive (i.e., intrinsic motivation) to grow in teaching in an unsupportive organizational climate, or in contrast, faculty opposition can be so strong that a supportive climate cannot affect it (Chism, 2004). Thus, the faculty and the institution must work together in order to improve teaching and learning. Life situations can affect faculty learning cycles and cause faculty to engage in activities that negatively affect teaching and learning such as repelling provocations to engage in development opportunities or regressing to routines which decelerate new learning and lead to ineffective practice in order to diminish stress (Chism, 2004). In this case, institutional influence is necessary to overcome barriers to innovation (Zhu & Engles,

2014). In these types of situations, the institution can promote participation in faculty development initiatives through institutional systems such as the performance appraisal process (Chism, 2004). Conversely, faculty may desire to improve teaching and learning without institutional support.

Institutional culture and teaching should be considered mutually (Kustra et al., 2015). It is Chism's (2004) contention that faculty alone cannot influence organizational change; faculty and the organization must work together to accomplish organizational change. Institutional culture shapes experience for faculty and students in that a culture that promotes teaching quality stimulates improved student learning (Kustra et al., 2015). Faculty members can affect change in their personal practice, but they must have institutional support for change to occur across the organization (Chism, 2004). According to Chism (2004), before change occurs, either in individual practice or within the organization, the institution must evaluate faculty members as well as the organization's policies, practices, and structures. Before engaging in a change process, the institution must first evaluate its culture in terms of how or whether it raises awareness of quality teaching, develops excellent teachers, engages students, builds organization for change, aligns institutional policy to foster quality teaching, highlights innovation as a driver of change, and assesses impacts (Hénard & Roseveare, 2012). Upon completion of such evaluation, the organization can provide the support needed for faculty development in terms of training or mentoring (Chism, 2004; Kustra et al., 2015). Additionally, the organization can determine internal action required for organizational change to occur. It is Chism's (2004) assertion that organizational and faculty

development interventions should be conducted simultaneously in order to prompt environmental as well as individual practice change.

Chism's (2004) model can be used when considering "common approaches to faculty development in using instructional technology in terms of when and under what conditions a given approach is likely to succeed in their environment" (p. 41). Chism (2004) suggested approaches for each phase of the learning cycle (reflecting, planning, acting, and observing) in terms of environmental support needed and developmental approaches needed for each individual phase. For instance, in the reflecting stage, faculty members reflect on past practice in terms of its consequences for future practice, therefore personal development hinges on the profundity of this stage. Reflection is important as it leads to the next cycle of learning in identifying the issue to address or direction to pursue. Intrinsic motivation (internal drive) is a key factor in this phase, as faculty members must recognize an instructional need in attempts to involve them in using instructional technologies (Chism, 2004). The developmental support for this phase would include assisting faculty in developing needs through reflective practice (Chism, 2004). Peer support is also an important element in this phase for maintaining motivation (Chism, 2004). Faculty learning communities or SoTL groups provide a supportive forum in which faculty members can present their ideas, receive helpful feedback, or generate more ideas through discussion (Chism, 2004; Chism, 2004b; Cox, 2004). The faculty developer can serve as a mentor to provide peer support or locate another person to serve as a mentor. Environmental (organizational) support for reflection could include adequate time for reflection, on-campus centers for creating

dialogue on teaching such as teaching/learning centers, and institutional recognition by administrators (Chism, 2004).

In the planning phase, faculty members contemplate the need that surfaced in the reflection phase and consider future teaching actions based on habitual routines or new possibilities (Chism, 2004). The developer can help promote growth in this phase by enriching the pool of ideas by creating a best-practices database through which to circulate ideas and modeling new practices by having faculty members using specific instructional technologies share their experience with its use (Chism, 2004).

Organizational support for the planning phase would include providing resources for seminar attendance and information sharing forums (Chism, 2004).

Faculty attempt to enact their plans in the acting phase, and many factors influence the process including personal energy levels, commitment levels, and personal risk-tolerance levels, and the most important factor is intrinsic motivation in order to prevent abandonment of new teaching approaches (Chism, 2004). The developer should provide support in fostering motivation and confidence in faculty members to assist them in realizing their plan by providing hands-on, just-in-time help and troubleshooting in instructional technology applications (Chism, 2004). The organization can assist by providing reliable technology, standard designs, and easy to recognize user interfaces (Chism, 2004). The organization could also provide other incentives such as release time to test and refine ideas and/or a reward system (Chism, 2004).

During the observing phase, faculty members gather data to gauge effectiveness at this point in the cycle (Chism, 2004). Data can be gathered by observing students for their response, asking for informal oral or written student reactions, using a mid-semester

course evaluation project, or by evaluating student products or performances on tests of various kinds (Chism, 2004). The developer's task during this phase is to help faculty by providing emphasis on assessment strategies, classroom research, and increasing faculty awareness of the benefits of inquiry on teaching practices (Chism, 2004). The organization can help in this phase by making course statistics readily available, providing resources such as statistical packages, or text retrieval systems (Chism, 2004).

Chism's (2004) model situated efforts in engaging faculty development for instruction technology in teaching and learning rather than in technology. Observations and implications for using the model to support faculty adoption of instructional technology included prevalence of the problem/need, just-in-time ideas and skills training, mentors and consultants, incentives, and rewards as stated in the preceding paragraphs (Chism, 2004). According to Chism (2004), developmental approaches, such as those discussed herein, rooted in an understanding of how faculty grow in teaching and how this growth is influenced by their organizational environment are likely to produce lasting and significant change.

Figure 3 shows Chism's Model (2004) to engage faculty in continuous learning and reflection.



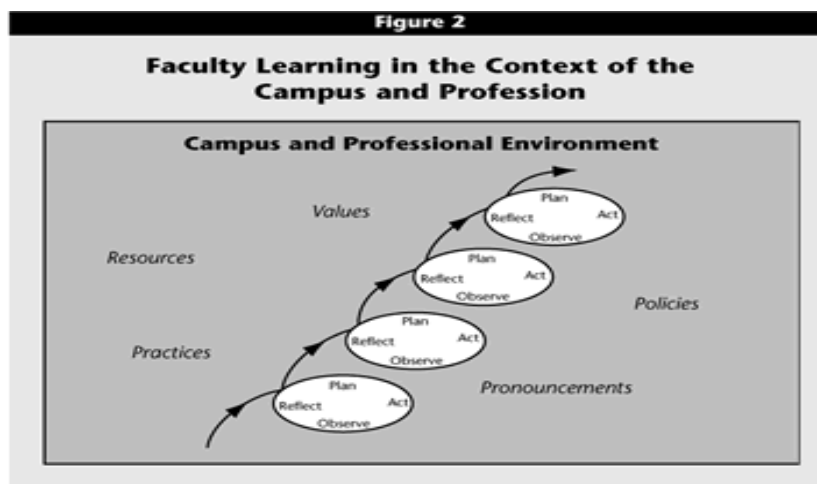


Figure 3. Chism's model to engage faculty in continuous learning and reflection is the conceptual framework for this study. This figure illustrates the process for continuous learning and reflection within the collective FLC within the teaching context. Reprinted from "Using a framework to engage faculty in instructional technologies," by N. Chism, 2004, EDUCAUSE. Copyright 2004 by EDUCAUSE. Reprinted with permission.

The needs to be addressed by the FLC were determined by the participants of the faculty learning community. As the Figure 1 model indicated, individual instructor participants followed the model of planning a strategy for the use of student learning in the classroom (planning), implementing the instructional technology strategy in the course (acting), observing the effects (observing), and reflecting on the process (reflecting). FLCs provide a forum for continuous learning and reflection, coworker support, and are formed with the objective of accomplishing goals (Cox, 2003). Chism's models align with this FLC criteria, which made the models an appropriate choice of theoretical framework for this study. The first model (Figure 1) applied to the individual FLC participant within his or her classroom, while the second model (Figure 2) applied to the group of FLC participants within the department.

The researcher utilized two complementary models as the conceptual framework for this study. The first model, created by Chism (2004), illustrates a continuous process of learning and reflection for faculty both individually and within the organizational setting. Chism's (2004) model promotes individual faculty growth by engaging faculty to take action and reflect on such action in terms of what works and what does not work in using instructional technologies and students' learning progress. This model fits perfectly with the concept of SoTL. When utilized in the organizational concept, faculty are encouraged to engage in collective dialog and to share best practices. It is very important for faculty to engage and share, however, the end result is student learning. Therefore, the researcher paired a model to assess faculty learning with a model to assess student learning. Chism's (2004) model was used to engage the FLC participants in individual and collective action and reflection and Kirkpatrick's (1994) Model of educational outcomes, as modified by Steinert et al. (2006), was used to assess faculty development activities as well as the effectiveness of the FLC in achieving the SoTL. Kirkpatrick's (1994) model was designed to assess educational outcomes; i.e., learning and progress.

Kirkpatrick's Four Level Evaluation Model (1994) was originally created over 50 years ago as an organizational training evaluation framework (Praslova, 2010). Kirkpatrick's book, *Evaluating Training Programs*, was published in 1994 (Clark, 2012). Since then, it has become the best known evaluation methodology for judging learning processes (Clark, 2012). Steinert et al. (2006) adapted Kirkpatrick's model as follows (Figure 4 and Table 1) to evaluate faculty development activities designed to enhance teaching and to determine their effect on the institution in which those individuals work.

This model focuses on the teacher's role and describes four levels of outcome that assist in evaluating the effectiveness of the FLC in achieving SoTL (Steinert, et al., 2006):

1. The learner's reaction to the educational experience;
2. Learning, which refers to changes in attitudes, knowledge, and skills;
3. Behavior, which refers to changes in practice and the application of learning to practice;
4. Results, which refers to change at the level of the learner and the organization

Figure 4 shows Kirkpatrick's (1994) Model as modified by Steinert et al. (2006) which is a conceptual framework for measuring faculty development activities.

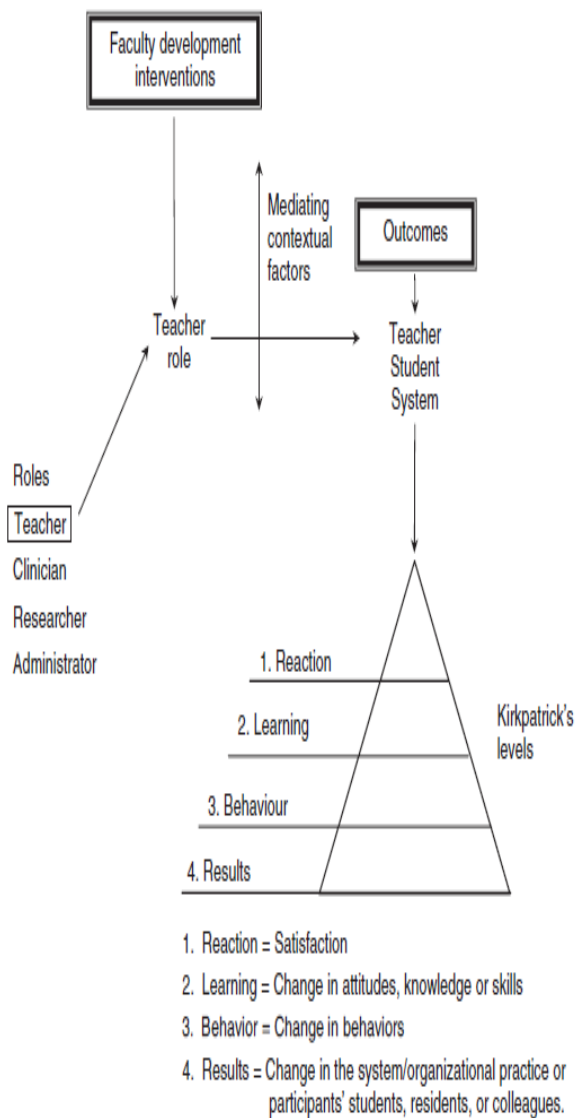


Figure 4. Kirkpatrick's (1994) Model - A conceptual framework for measuring faculty development activities. Reprinted from "A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8," by Y. Steinert, K. Mann, A. Centeno, D. Dolmans, J. Spencer, M. Gelula, and D. Prideaux, *Medical Teacher*, 28(6), 497-526 2006, Informa Healthcare. Copyright 2006 by Informa Healthcare.

Table 1 shows Kirkpatrick's Model (1994) for evaluating educational outcomes as modified by Steinert et al. (2006) to include students, residents, and colleagues. This table accompanies Figure 4.

Table 1

\*Kirkpatrick's Model (1994) for evaluating educational outcomes.

Level	Kirkpatrick Level	Outcome
Level 1	<b>REACTION</b>	Participants' views on the learning experience, its organization, presentation, content, teaching methods, and quality of instruction
Level 2A	<b>LEARNING</b> —Change in attitudes	Changes in the attitudes or perceptions among participant groups towards teaching and learning
Level 2B	<b>LEARNING</b> — Modification of knowledge or skills	For <i>knowledge</i> , this relates to the acquisition of concepts, procedures and principles; for <i>skills</i> , this relates to the acquisition of thinking/problem-solving, psychomotor and social skills
Level 3	<b>BEHAVIOR</b> —Change in behaviors	Documents the transfer of learning to the workplace or willingness of learners to apply new knowledge & skills
Level 4A	<b>RESULTS</b> —Change in the system/organizational practice	Refers to wider changes in the organization, attributable to the educational program
Level 4B	<b>RESULTS</b> —Change among the participants' students	Refers to improvement in student learning/performance as a direct result of the educational intervention

\*Kirkpatrick's model was modified by Freeth and was adopted by the Best Evidence Medical Education (BEME) Collaboration of Steinert, et al (2006). This model was further adapted by Steinert, et al. to include students, residents, and colleagues (instead of patients) at level 4B. Reprinted from "A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8," by Y. Steinert, K. Mann, A. Centeno, D. Dolmans, J. Spencer, M. Gelula, and D. Prideaux, 2006, *Medical Teacher*, 28(6), 497-526 2006, Informa Healthcare. Copyright 2006 by Informa Healthcare.

Praslova (2010) adapted Kirkpatrick's model to assessment in higher education.

This model (see Table 2) was used to evaluate the student's learning and progress within

the FLC. Evaluation of educational outcomes has become increasingly significant in Higher Education. Accrediting agencies and governments have placed increasing significance on student academic learning; i.e., content learning and intellectual development, as a product of educational programs (Bers, 2008; Brittingham, O'Brien, & Alig, 2008; Praslova, 2010). These agencies, along with economic development representatives, demand that higher education institutions prepare students for the labor force through the development of pertinent skills and competencies (Toutkoushian, 2005; Voorhees & Harvey, 2005; Praslova, 2010). The assessment process can help to properly document the attainment of such outcomes (Praslova, 2010).

Assessing student learning outcomes is essentially ascertaining whether students are learning what they are expected to learn (Bers, 2008). Assessment is a means for awarding grades (Ewell, 2001; Praslova, 2010). Assessment can also be used to survey the degree to which program or institutional learning goals are being realized (Ewell, 2001; Praslova, 2010). The transition in higher education to the Learning Paradigm and accentuating student outcomes as opposed to being teaching-focused makes assessment even more vital (Praslova, 2010). Assessment of student learning is also a way for higher education institutions to measure the effectiveness of their core educational mission—teaching (Praslova, 2010). Despite its importance, many higher education institutions struggle to understand assessment and how to use assessment outcomes to enhance teaching and learning (Bers, 2008; Praslova, 2010). In order to assuage demands for feedback, higher education institutions need to be more methodical, focused, and practical in assessment efforts (Praslova, 2010). This study proposed the use of

Kirkpatrick's (1994) model, modified for assessment in higher education, in assessing student learning outcomes.

Table 2 shows Kirkpatrick's Model (1994) for evaluating educational outcomes as modified by Praslova (2010) for assessment in higher education and was used to assess student learning outcomes in this study.

Table 2

\*Kirkpatrick's Model (1994) for evaluating educational outcomes.

Criteria	Learning in Higher Education	Sample Instruments and Indicators for Higher Education
Reaction	Student Affective Reactions and Utility Judgments	Student Evaluations of Instruction
Learning	Direct Measures of Learning Outcomes, Knowledge Tests, Performance Tasks or Other Graded Work	National or Institutional Pre-and-Post Tests, National Standardized Field Tests, Examples of Class-specific Student Work
Behavior/ Transfer	Evidence of Student Use of Knowledge and Skills Learned Early in the Program in Subsequent Work, e.g., Research Projects or Creative Productions, Application of Learning During Internship, Development of a Professional Resume, and Other Behaviors Outside the Context in which the Initial Learning Occurred.	End of Program Integration Papers or Projects, Internship Diaries, Documentation of Integrative Research Work, Documentation of Community Involvement Projects, and Other Materials Developed Outside the Immediate Class Context
Criteria	Learning in Higher Education	Sample Instruments and Indicators for Higher Education
Results	Alumni Career Success, Graduate School Admission, Service to Society, Personal Stability.	Alumni Surveys, Employer Feedback, Samples of Scholarly or Artistic Accomplishments, Notices of Awards, Recognition of Service, etc.

\*Kirkpatrick's model was modified by Praslova (2010) to assessment in higher education. Reprinted from "Adaptation of Kirkpatrick's four level model of training criteria to assessment of learning outcomes and program evaluation in Higher Education," by L. Praslova, 2010, *Educational Assessment, Evaluation and Accountability*, 22(3), 215-225. Copyright 2010 by Springer Science+Business Media, LLC.



### **Purpose of the Study**

As indicated in chapter one, the purpose of this study was to implement the scholarship of teaching and learning in the Office Administration Department of a large metropolitan area community college through the use of a faculty learning community. The goal of this initiative was to describe the birth and decision-making processes of a topic-based FLC at a community college that is designed to implement improvements in instruction and thereby improve student learning. The participants evaluated current teaching practices and instructional technologies, as well as student learning outcomes, to decide how existing techniques could be improved or explore new methods for merit for the possibility of replacing existing instructional techniques. The overarching objective was to improve teaching practices and student learning on both an individual and collective basis through the process of review and reflection. Teaching practices and instructional technologies were evaluated through the use of an action/reflection process in accordance with Chism's (2004) model.

Using Kirkpatrick's (1994) model, this study addressed reaction, learning, and behavioral criteria in evaluating student learning. Reaction criteria were captured through student evaluations. Pre- and post-tests were used to attain learning criteria. Behavioral criteria were acquired through the completion of performance projects in which students used the knowledge acquired in the class to demonstrate application of learning. The results criteria was measured by whether students were still enrolled in school. However it was desirable that both students and the community would benefit from the acquisition of skills and knowledge obtained by the student resulting in responsible citizens and a more educated community. In conjunction with this study, the

researcher identified the following research goals with primary focus on Goal 1 and secondary focus on goals 2 and 3:

### **Research Goals**

1. Describe the processes and resources faculty within the Office Administration Department of a large metropolitan area community college use to initiate and sustain a faculty learning community.
2. Describe any changes in instructional strategies or practice or knowledge acquired through interaction by the FLC members in the FLC initiative.
3. Describe any changes in student learning outcomes in the courses in which members of the FLC implement the planned instructional strategies.

### CHAPTER THREE: METHOD

This descriptive, collective case study took place in the context of the Office Administration Department of a two-year community college in North Carolina. Yin defined a descriptive case study as a method used to describe an intervention or phenomenon and the real-life context in which it occurred (Yin, 2013). Collective case studies use multiple cases and allow the researcher to explore differences within and between cases (Baxter & Jack, 2008).

The purpose of this study was to implement the scholarship of teaching and learning (SoTL) in the Office Administration Department of a large metropolitan area community college through the use of a faculty learning community (FLC). In accordance with the definition of a faculty learning community, this project created a community of faculty and staff participants. The participants evaluated current teaching practices and instructional technologies, as well as student learning outcomes, in order to decide how existing techniques could be improved or explore new methods for merit for the possibility of replacing existing instructional techniques.

FLCs and the SoTL are virtually new concepts to the community college, so describing how an FLC develops in a community college can be very useful information as it could be used to assist other community colleges in implementing FLCs. The researcher intended to describe how the community college can implement an FLC and ensure success in the initiative. The researcher intended to describe the inception of the FLC; i.e., garnering institutional support, acquiring participants, and the goal-setting process.

## **Context**

The study was conducted in the Office Administration Department of Gaston College, a community college in North Carolina, at which the researcher is a member of the faculty. There were no experienced FLC members at Gaston College, so the researcher served as the FLC coordinator. The study spanned one calendar year over the spring and fall semesters of 2014. The planning stage of the FLC initiative began in the spring 2014 semester, and qualitative data were collected. Both qualitative and quantitative data were collected during the fall 2014 semester.

For the first month, the participants in the FLC held planning meetings on a weekly basis in order to introduce the concepts of faculty learning communities and SoTL. The meetings were held at a mutually convenient time for the FLC members, and the researcher, acting as the FLC coordinator, conducted the meetings. After the first month, the FLC met on a bi-weekly basis at a time convenient to everyone's schedule; i.e., when instructors were available outside of class. The meetings were held regularly to allow the FLC participants to remain in touch with each other and to build community. Although the focus of the topic-based FLC was instructional technology, the technologies to be used in the FLC were not articulated. Instead, the needs of the FLC emerged from the faculty learning community members in the planning meetings. Open discussions and brainstorming sessions were held in the meetings to determine common issues that the FLC members face with regard to technology.

Once the instructional technology was chosen, it was implemented as the focus of the FLC. For the purposes of this study, the researcher suggested that a single form of IT

be used as it would be easier to measure in this project, but the FLC participants ultimately decided on this issue.

In order to determine whether the FLC initiative was successful, the FLC participants and the students were examined to ascertain if the FLC met its goals as set by the participants and to establish whether student learning was achieved. This was conducted during the second semester. Hubball, Clark and Beach (2004) provided a framework of evaluation and assessment for FLCs. Evaluation is akin to program evaluation, except that in relation to FLCs, the attention is on the FLC program and its effectiveness in meeting its goals (Hubball et al., 2004). “Assessment is the systematic gathering of information about component parts of the thing being evaluated, and therefore the assessment of learning—of faculty participants, the FLC as a collective, the FLC facilitators, and ultimately the students—forms the core of effective evaluation of FLC programs” (Hubball et al., 2004, pp. 87-88). FLCs are used to strengthen student learning through improved teaching practice. Goal 3 of this initiative was to describe changes in student learning outcomes. Therefore, measuring student learning was vital to FLC assessment (Hubball et al., 2004). The students were assessed on measurable learning outcomes (MLOs) that had been previously established by the Business and IT Division of the college and approved by the college’s Quality Enhancement Plan (QEP).

Both individual faculty learning outcomes as well as collective FLC outcomes were examined, as explained in the Data Collection section of this paper. Individual faculty learning outcomes were established by individual FLC participants in the initial planning phase. Collective faculty development outcomes were a combination of those established by the FLC participants as well as the college’s professional development

requirements. An informal needs assessment was performed by the FLC participants during the initial planning phase using Cox's goals and outcomes instruments located in appendices G and H to determine the FLCs goals and objectives. The focus course had clearly defined learning objectives that informed and guided the FLC in establishing goals and outcomes (Hubball et al., 2004). FLC objectives and outcomes were aligned closely with Gaston College's professional development plan as it relates to faculty development. In addition, to interpret the effect of assorted FLC processes on FLC objectives, including individual FLC member contributions and how well long-term outcomes had been achieved, the collective FLC developed assessment criteria using the institutional requirements for faculty development (Hubball et al., 2004).

### **Participants**

This study consisted of both primary and secondary participants. The primary FLC participants were faculty and/or staff in the Office Administration Department of a two-year community college. The secondary participants were the students who were enrolled in the focus course selected for the study by the FLC. The focus was on the primary participants; however, student learning was also measured in order to gauge the success of the FLC initiative. In keeping with the principles of SoTL research, faculty and/or staff in the FLC participated on a voluntary basis as a professional development opportunity. Initially, the researcher approached members of her department who teach the focus course for participation in the FLC. Upon reflection and in accordance with the definition of an FLC that requires the participants to have cross-disciplinary backgrounds (Cox, 2001), the researcher recruited other members of the division on the basis of their expertise in areas such as technology and computer programming, and to bring new,

diverse and varying perspectives to the FLC. The FLC members had different and unique backgrounds and experiences, which served to create a diverse committee with diverse perspectives. The purpose for the diverse perspectives was to prevent a process of ‘groupthink’ in which the participants are unable to identify new objectives or methods because they are too closely involved with the focus course.

**Primary participants.** The participants consisted of seven females and one male and the researcher. Each participant was approached by the researcher and asked to voluntarily participate in the study. Each participant was given a consent form to read and sign. The consent form (see Appendix D) explained the purpose of the study and a description of expected participation in the study, which included faculty participation in dialogue at each FLC meeting, making group presentations and sharing information from their reflective practices in relation to instructional technologies implemented.

The FLC was a diverse group of faculty and staff members in terms of education and experience. One member was a technology specialist with teaching experience. Currently, she teaches in the Office Administration program and is the technology specialist for the college. Formerly, she was Department Chair of the Office Administration program for ten years. She is responsible for course design in the college in conjunction with the QEP for the college. Thus, she is familiar with the teaching requirements of the Office Administration program, she was able to assist with technology requirements (from the user’s side) or problems with the FLC initiative, and she was familiar with course design and requirements for the course. One member was the Office Administration Program Department Dean. She was asked to participate in the initiative because she teaches the focus course for the initiative, she is familiar with the

course design, and she can assist in helping the FLC initiative obtain the necessary technology required for the initiative, such as wireless capability, from the Information Technology (IT) Department. One member was the Department Chair for another Department in our Division, Information Technology. He was invited to participate because he was familiar with technology from the programming side (the computer side).

Other members were invited for the purpose of bringing new and creative ideas and/or an outside perspective to the group. One member was the current Department Chair of the Office Administration program. She teaches the focus course, and she designed the course for use by other faculty in the program, so she is very familiar with it and its requirements. Two members were teachers in the Office Administration program—one has taught the focus course and one currently teaches the focus course. Two members were teachers in the Information Technology program and have not taught the focus course.

Members who do not teach the focus course were chosen because they have varied backgrounds and perspectives about teaching, about technology, and about the use of technology in the classroom. Members who regularly teach the course may not be able to recognize where improvements could be made because they are ‘too close’ to the course. Thus, members who do not teach the focus course but teach similar courses were able to share outsider perspective about the course as well as teaching from observation or experience to improve it. Three of the members teach a common course, CIS-110, Introduction to Computers, which is virtually identical to the focus course in content and the use of SAM, an online skills assessment manager, which the publisher simply calls SAM (SAM, n.d.). CIS-110 is also an outcomes course for the QEP, so the members



teaching the course are familiar with the QEP requirements for MLOs and the college's professional development policy. Members who do not teach the focus course but who teach CIS-110 were asked to implement the selected instructional technology of the FLC into their courses as well. This allowed those faculty members to determine the effectiveness of the instructional technology as it related to their courses. They were then able to share their insight with the FLC so that development in the FLC could be monitored. One purpose of the FLC and the SoTL movement was to allow faculty to share best practices in teaching—both successful and unsuccessful methods—to achieve or improve student learning. Thus, the hope was that, through the common use of technology, the FLC members could share information about successful uses of the technology or other pertinent information so that best practices could be established for teaching the course. The hope was that student learning could be improved based on the use of the best practices by whoever may teach the course.

Table 3 shows demographic data on the primary participants as well as information on their educational background and experience.

Table 3

## Demographic Data on Primary Participants

Participant	Gender	Age	Employment Designation	Education	No. Years Teaching	Experience outside of Teaching
1	Male	52	Faculty	Computer Science	29	No
2	Female	49	Faculty	Computer Science	12	Computer Programmer
3	Female	66	Faculty	Arts & Sciences	19	Secretary
4	Female	48	Faculty	Arts & Sciences	3	Director of Distance Education
5	Female	43	Faculty	Education	19	No
6	Female	47	Staff	Business Administration	19	Human Resources
7	Female	48	Staff	Education	18	Real Estate
8	Female	46	Faculty	Business Administration	12	Human Resources

**Secondary participants.** The students in the selected classes of the primary FLC participants were the secondary participants in this study. These students also participated on a voluntary basis. The researcher, acting as FLC facilitator, spoke to the students in the OST-137 courses of each FLC participant and explained the initiative and requested volunteers to participate. Those wishing to participate signed a consent form (Appendix E) created by the researcher conceding their willingness to participate in the initiative on a voluntary basis. The form included the project title and purpose for the

research as well as expectations for participants. There was one stipulation to volunteering, the student was required to be at least 18 years of age. In addition, the form captured demographic data such as age, gender, race, and program major. These applications were kept by the researcher/FLC facilitator. Students who chose not to participate were not adversely affected by their non-participation. Student privacy was ensured as the FLC coordinator (the researcher) was aware of who the volunteering students were, but the individual faculty members teaching the course were not made aware of the participating/non-participating students. The coordinator asked the participating FLC teacher members to provide data on all students. In this way, the faculty member was not aware of who was participating from their course.

There were seven sections of the OST-137 course taught in the fall of 2014. There were five regular start sections consisting of four seated sections and one online section. In addition, there were two late-start online sections. Two of the regular start seated sections had enrollment caps of 30 students as well as the regular start online section. In the other two seated sections, one had an enrollment cap of 25 and the other had an enrollment cap of 20. The two late-start online sections each had enrollment caps of 30. There were 172 students who registered for the course sections in the fall of 2014. However, by the census date with students being purged for non-payment and no-show students, there was a pool of approximately 150 students from which to gather participants.

To garner participation in the initiative, the researcher visited each of the seated sections of the focus course, described the initiative, asked for volunteers, passed out consent forms, and collected them before leaving the class. For the online classes, the

researcher created an announcement describing the initiative and asking for volunteers. The researcher sent the announcement and consent forms to the online instructors and asked them to post the announcement and consent forms in their online sections of the course.

There were 105 students who submitted consent forms. Of those, 104 were acceptable but one student was rejected because she was underage. Of those, 71 were enrolled in seated sections and 33 were enrolled in online sections. Although there were four seated sections to three online sections, the initiative had better participation from the seated sections in that very small numbers volunteered from the online sections. One course only had five student volunteers. This may have been due to the request being conveyed online through an announcement vs. face-to-face.

In reference to the demographic data of the secondary participants, the researcher noted that the majority of the participants were female. This is not surprising because the majority of the students that enroll in the Office Administration programs are female.

Table 4 shows the secondary Participants' frequency analysis of gender.

Table 4

Secondary Participants' Frequency Analysis of Gender

Gender	Frequency	Percent
Female	90	87%
Male	14	13%
Total	104	100%

In regard to race, the researcher found that the majority of the students were either White or African-American, with some Hispanics. There was one Asian student, one

categorized as Other, one categorized as Black/White, and four categorized as Not-specified. These have simply been labeled as ‘Other’ in Table 5.

Table 5 shows the secondary participants’ frequency analysis of race/ethnicity.

Table 5

Secondary Participants’ Frequency Analysis of Race/Ethnicity

Race/Ethnicity	Frequency	Percent
White	73	70%
African-American	17	16%
Hispanic	7	7%
Other	7	7%
Total	104	100%

The median age for the group was 29, with 62% being 30 years old or younger, 37% over age 30, and 2% not specified. In looking at program majors, 55% of the students were enrolled in one of our Office Administration programs, and 45% were enrolled in other programs or not specified.

**Office Systems Technology OST 137, the Focus Course**

The focus course for this initiative was OST-137 Office Software Applications. OST-137 is a first-semester course required by the Office Administration programs, as well as by various other programs. The Office Administration program was formerly entitled Office Systems Technology, thus the prefix of OST. OST-137 was chosen as the focus of the FLC for various reasons. First, it is a first-year course and no prerequisites are required for students to take the course. Next, various departments throughout the college require this course for their programs, so it has wide access to students across the college—not just to Office Administration students. Next, the course is an outcomes course for the college’s QEP. Lastly, this course has historically had a high failure rate

and high student withdrawal rates, so the hope was to improve learning and retain students. The course is designed to help students learn the concepts and functions of software that is used in a business environment, with emphasis on terminology and use of software through a hands-on approach. Thus, the course meets the technology criteria of the FLC.

The course was designed using a Blackboard LMS shell as an online course, but the same shell is used for all delivery methods, i.e., seated, hybrid or online. Each instructor who teaches the course uses the same Blackboard course, the same course content, and the same course materials (see Appendix F for course syllabus). The tests and assignments came directly from materials provided by the publisher from the textbook used by the course. The course is complete with lecture notes, PowerPoint presentations, how-to videos that the students can view, self-assessments, and other materials to aid the student in being successful in the course. The course has been reviewed by our institutional Online Course Standards committee and has been approved and certified as having sufficient content and material for institutional goals and learning outcomes. The only variable in the course is the instructor and their teaching methodology.

The course is similar to an Introduction to Computers course, which is required by many community colleges. In this course, students learn basic information about computer components, the operating system, and the Internet. In addition, students learn word processing, electronic spreadsheets, database management and presentation software using Microsoft Word, Excel, Access and PowerPoint. In the course, students

complete performance projects and tests through SAM. It is offered in seated, online, and hybrid (a combination of seated and online elements) formats.

SAM is interactive, which means that it interacts with humans in receiving data or commands and gives immediate results or feedback (SAM, n.d.). SAM provides personalized remediation, which means that it relays to students items that were incorrect in their individual assignments submitted (SAM, n.d.). SAM also allows students to learn at their own pace (SAM, n.d.). SAM contains several ‘course management tools’ and ‘auto-graded assignments’ for instructors which grades students equally and fairly. The course Blackboard section contains a link to the SAM Website. Students access SAM through a unique login and password, which they use to upload assignments for grading.

The publisher transferred all of the assignments from the textbook into SAM. Instructors have access to trainings, exams, and project assignments in SAM. Training assignments display a ‘simulated Microsoft Office environment’ that provides users the ability to complete tasks at their own pace (SAM, n.d.). The training exercises have several modes through which to help students master tasks: introduction, observation, practice, and application. First, SAM introduces the task to the student and provides several ways in which to accomplish the task. Next, SAM completes the task on screen as the students observe. SAM then allows the student to practice the task with step-by-step instruction and screen hints that guide the student through the process. Finally, SAM provides the instructions for the task and the student is graded on their completion of the task. Additionally, SAM contains remedial help for any missed task that allows the student to read and study the textbook for assistance in completing the task properly.

SAM projects are ‘cheat-proof’ hands-on exercises that allow students to create ‘real-world projects’ such as reports, spreadsheets, or presentations (SAM, n.d.). SAM assigns a code in a document based on the students’ login, and it flags a student if the work submitted does not contain their code. Students receive immediate feedback and have three opportunities to correct their mistakes. Instructors are able to create assessments based on training exercises and projects. The course contains skills exams based on trainings as well as performance tests based on projects.

### **Data Collection**

The planning stage of the FLC began in the spring semester. The members completed both the FLC Goals Inventory located in Appendix G and the FLC Goals Inventory Interpretation of Results Inventory located in Appendix H to determine the goals that the FLC participants would like to achieve through the initiative. These forms were also completed at the end of the initiative at the end of the fall semester to evaluate the impact of the FLC on the members and to determine whether the FLC outcomes were attained. The answers from the beginning of the initiative during the planning stage were compared with the answers at the end of the initiative in the data collection stage for differences. This helped determine any items accomplished during the administration of the FLC. The Goals Inventory and Interpretation of Results tools were chosen because they are used by Milton Cox (2004) at Miami of Ohio who has been very successful working with FLCs and is recommended by Cox in initiating and implementing an FLC. Faculty were also asked to complete a survey at the end of the initiative to determine the attainment of individual learning outcomes and the accomplishment of collective FLC outcomes. Faculty were expected to engage in dialogue at each of the meetings during the planning phase as well as the data collection phase; these meetings were audio



recorded and the researcher took notes of the conversations, and data were gathered from these conversations. In addition, faculty were asked to make group presentations and share information from their reflective practices in relation to the instructional technology implemented. Qualitative data were also collected from these group presentations for analysis.

Faculty in the FLC established goals and objectives for the FLC during the planning stage in the spring of 2014 and created valuation strategies to assess student learning. During the data collection stage of the FLC, they were expected to participate in both individual and collective assessment (Hubball et al., 2004). Faculty were expected to evaluate the effect of the instructional technology on student learning in their courses, their personal learning, and the shared FLC learning. This was accomplished by using the identical tests consistent across all sections of the OST-137 course mentioned above and a brief questionnaire to evaluate student learning. (Hubball et al., 2004). Individual and collective FLC learning was assessed using such measures as self-reflection and brief surveys, and group dialog and peer review through presentations (Hubball et al., 2004). Hubball et al. (2004) contended that a combination of assessment strategies would cultivate a comprehensive collection of expertise, competencies, and aptitudes in individuals.

Hubball et al.'s, (2004) framework identified three tenets for producing authentic assessment in FLCs that the researcher found useful for this study. These standards required active involvement in the FLC initiative by faculty members, required appraisal throughout the initiative from beginning to end, and required both individual and collective assessment. Throughout the initiative, Chism's (2004) model was used to

engage FLC members in both individual and collective action and reflection. At the end of the fall semester, faculty development activities such as teaching were assessed using Kirkpatrick's (1994) Model for Educational Outcomes, as modified by Steinert et. al. (2006), as well as the effectiveness of the FLC in achieving the SoTL. Both models were presented in chapter 2. The participants followed the model of planning, acting, observing and reflecting and collectively developed a strategy for the use of student learning in the classroom. The FLC participants chose the SAM Pathway feature as the instructional technology to implement in the OST-137 course. The FLC participants decided collectively which exams and projects should be used for assessment regarding the FLC initiative. They decided to assess student learning using pre- and post-test assignments. The FLC determined collectively whether there should be additional assignments to determine the effect of the instructional technology on student learning. The SAM Pathway feature also provided a remedial training assignment personalized to each student's pre-test scores. The FLC participants also developed instructional methods for delivery and assignments for use of the technology for the focus course. The individual FLC members who teach the focus course implemented the SAM Pathway feature into all seven sections of the fall 2014 OST-137 courses. One of the instructors of the CIS-110 course implemented SAM but the others did not as their courses had already been created without the feature.

During the data collection phase in the fall 2014 semester, they assessed the effects of the instructional strategy on student learning. In addition, they reflected on the process to determine the effect the instructional technology was having on student learning, faculty member learning, and FLC outcomes. Furthermore, the primary

participants made public presentations to the collective FLC. Through these presentations, the FLC participant offered information or advice learned upon personal reflection about the teaching project and its contributions to student and faculty learning. The aim was to promote both individual and collective growth in the FLC through this feedback.

The secondary participants were assessed using Kirkpatrick's (1994) Model of Educational Outcomes, as modified by Praslova (2010), for assessment in higher education. There were four criteria levels used in evaluating student learning to determine the effectiveness of the FLC in achieving SoTL: reaction, learning, behavioral, and results criteria. The first criteria level was the student's reaction to the SAM Pathway feature that was captured through a student self-evaluation survey. The survey was similar in format to the course/instructor evaluation and included their views on the learning experience, its organization, presentation, content, teaching methods and quality of instruction. The survey instrument was created by the researcher for the purpose of this study.

The next level was learning, and this level included two parts—1) change in attitudes, and 2) modification of knowledge or skills. The students were assessed to determine how their attitudes changed towards teaching or learning through the use of the SAM Pathway feature. This was ascertained through observation of the students in how and whether they completed the SAM Pathway assignments, how and whether their post-test scores improved over pre-test scores, how and whether they remained in the course until the end of the semester, and their final course grade. Modification of the students' knowledge and skills was measured in relation to the acquisition of concepts, procedures

or principles and on problem-solving skills using the pre- and post-tests. The use of the SAM Pathway feature ensured consistent assessment. The third level, behavioral criteria was acquired through the completion of performance projects in which students used the knowledge acquired in the class to demonstrate application of learning. The fourth level, the results criteria, were measured by whether the students were still enrolled in courses and pursuing their degree, whether they graduated, or whether they were no longer enrolled in school and had not graduated. It was desirable that both students and the community would benefit from the acquisition of skills and knowledge obtained by the student resulting in responsible citizens and a more educated community.

In this mixed methods descriptive, collective case study, measurable learning outcomes of students were assessed as well as faculty learning outcomes. “The purpose of a parallel mixed methods design is to simultaneously collect both quantitative and qualitative data, merge the data, and use the results to understand a research problem” (Creswell, 2008, p. 557). The measurable learning outcomes for which the students were assessed emerged from the course materials and had been approved by the college’s QEP. Other MLOs could have been designated by the FLC based upon the teaching and learning needs that emerged from the discussions of the FLC during the planning phase. Such assessment included common assignments for each participating class, such as an assignment, or final exam. Common assignments are currently being used for the focus course for the QEP program and were used for the FLC initiative. These assignments required students to demonstrate knowledge acquired and skills learned through the course. Other assignments could also have been created by the collective FLC.

Faculty learning outcomes were assessed by documenting, through self-reflection and self-monitoring, how practices of the faculty participants in the FLC changed. Self-reflection was performed by each individual FLC participant. Self-reflection helped faculty fulfill their duties and responsibilities as faculty members and was a very important component of the SoTL process (Sperling, 2003). Following self-reflection, the results were shared through presentations with the collective FLC to allow for group peer review and self-reflection. This allowed the FLC participants the opportunity to apply the new knowledge to their courses and practice. This allowed the FLC to participate in self-reflection, peer review, communication of results, and application to practice (Sperling, 2003). In turn, this promoted both personal and professional development in the FLC participants. Individual personal growth and development was achieved through application to practice and self-reflection. Professional growth and development for the FLC committee was achieved through peer review and application to practice. Therefore, the FLC participants participated in SoTL activities (Sperling, 2003) while working to improve their practice and developing both personally and professionally. In addition, content analysis was performed using presentations and surveys conducted by the FLC members on the evidence of positive and/or negative effects and what the faculty participants bring back to the community. Data collection for the FLC involved assessments of the FLC members through presentations and brief surveys.

According to Creswell (2008), surveys are administered “to describe the attitudes, opinions, behaviors, or characteristics of the population” (p. 388). Miami University, as well as other institutions and various researchers, have developed survey instruments for

assessing faculty learning community outcomes, mostly based on Likert-type Scales. In an attempt to preserve reliability and validity of the data, a survey instrument was created based on the specific needs and outcomes of this FLC initiative. Data collected through survey instruments was statistically analyzed using the SPSS Statistics software and Microsoft Excel computer program.

### **Instructional Technology**

In this emergent study, the instructional technology that was the focus of the FLC initiative was chosen by the FLC members. The FLC members met and discussed the focus course. Since the focus course is an outcomes course for SACS accreditation, institutional data was available for the course outcomes. In reviewing the data, it became apparent from the students' final exam scores of the past few years, that students were not mastering the Excel spreadsheet application as well as the other Microsoft applications. In the focus course, student learning outcomes are measured by individual test scores in each software area for the final exam. Students must achieve a score of 80% on the test to demonstrate mastery of the software application (QAR, Sept 2013). The 80% was determined by the institution as the criterion to measure success in the course. The chart in Figure 5 reveals that, in the fall of 2011, Excel scores were barely above 80% while Word and PowerPoint were well above the 80% mark. Access scores were below 80% in fall 2011, so more focus was placed on Access in the last few years, and subsequently, Access scores have improved. However, from 2013 forward, Excel scores have been consistently below 80%. The FLC members decided that the Excel application would be the area of concentration for the FLC initiative with the hopes of raising or improving student test scores in this area.

Figure 5 shows Test Score Results from Fall 2011-Spring 2013 in the OST-137 course.

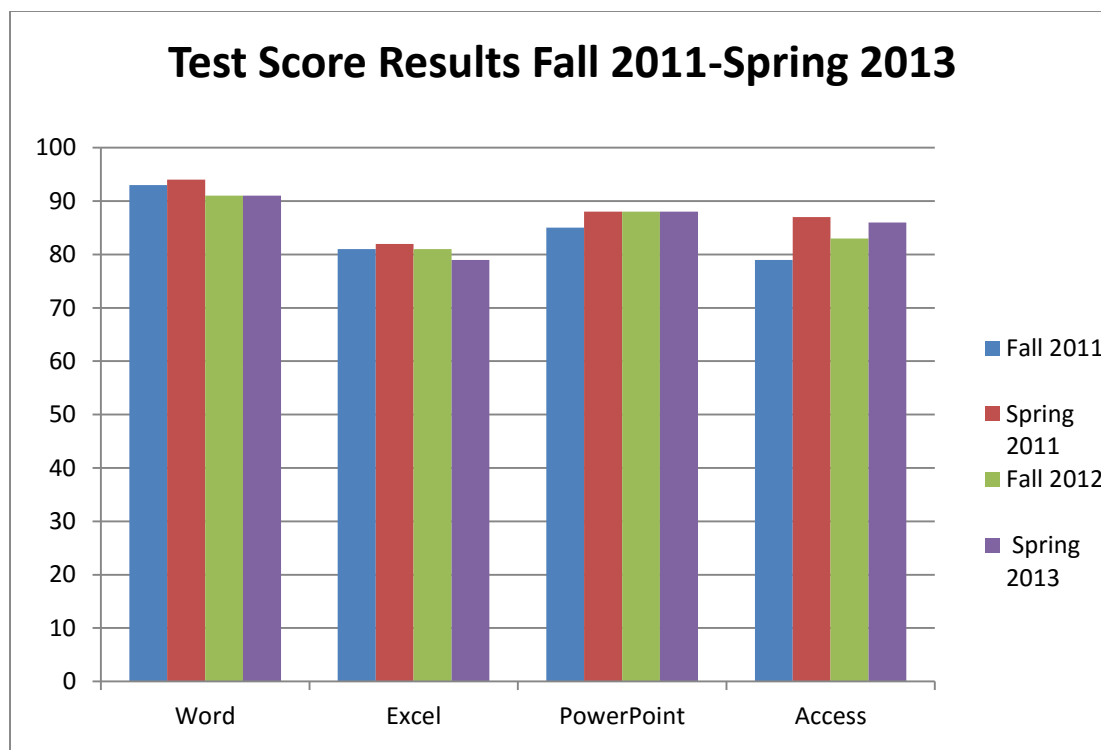


Figure 5. Gaston College Test Score Results Fall 2011-Spring 2013. *Accreditation Council for Business Schools and Programs (ACBSP) Quality Assurance (QA) Report for Associate Degree Business Programs (September 15, 2013).*

The instructional technology was derived from the skills assessment manager, SAM. All instructors of the focus course as well as the CIS-110 course use the SAM learning tool in their courses, so they are familiar with its capabilities. Although the institution has utilized SAM since 2007, a new tool has emerged with which the instructors are not familiar. It is called SAM Pathway. This tool allows instructors to create a pre-test to determine a student's knowledge of the software application. Based on the results of the pre-test, the student is given individual remedial training based on their individual needs. The student completes a project and a post-test as well and

receives individual remedial help throughout the process. SAM contains reports that reveal to instructors areas in which each student needs assistance. Using these frequency analysis reports, instructors are able to provide instruction and individual assistance to students in the areas in which it is needed. The hope here again is to improve test scores and help students master the Excel material.

### **Assessment of FLC Members**

FLC members have identified the following goals for the FLC: Develop increased individual teaching skill and ability (enhancing general teaching effectiveness) and focus on collegueship and learning from others (developing a sense of connection to others and to the institution). FLC faculty members evaluated student learning by examining post-test scores. Success was measured, in keeping with the institutional standard of 80%. Thus, if a student scored an 80 or above on the SAM Path post-test, they were considered to have achieved mastery of the Excel software. The scores were also compared to the Excel unit test scores of the fall semester of the previous year to determine if learning was accomplished through the FLC initiative. If the Excel SAM Path post-test scores were higher than the fall semester of the previous year Excel test scores, it could be determined that increased learning was achieved through this initiative. Data were collected throughout the fall semester through group dialog, self-reflection, and brief surveys to determine and assess FLC member learning.

### **Assessment of Secondary Student Participants**

Students were given a brief evaluation at the end of the course to measure their reaction to the instructional technology and its effect on learning. A change in attitude or skills was measured by the student's response to the assignments and the course. FLC



members who have previously taught the course had unanimously agreed that they had witnessed that students who were not mastering the material responded by complaining because of anxiety or frustration in completing the work, simply not completing the assignments, or dropping the course. If complaining is reduced, assignments are completed, or students remain in the course, FLC members could measure this as success in a change of behavior or skill. A change in knowledge was measured by the completion of the common SAM Path post-test that was administered to all students (whether participating or not). If the students achieved 80% on the test, they successfully mastered the Excel software. Finally, the test scores from the SAM Path post-test were compared to the Excel test taken in the fall semester of 2013. If the scores were higher, the FLC initiative would have been successful.

### **Data Analysis**

Both qualitative and quantitative data were collected for this study. Data collected for the qualitative portion of the study included surveys administered to students regarding their attitudes towards learning and how they may have changed because of the FLC initiative. The surveys were created by the FLC members based on the learning outcomes of the focus course and the FLC outcomes and goals. Surveys were created and administered to the faculty that focused on how well the FLC initiative was meeting the goals and outcomes of the FLC.

Surveys were created to evaluate faculty presentations made to the FLC to determine whether the FLC initiative was meeting its goals and outcomes. The questions in this survey were adapted from questions in the FLC Goals Inventory Form in Appendix G. Also, the student assignments and tests were evaluated using statistical

software such as SPSS Statistical Software and Microsoft Excel and graphs. Qualitative data was analyzed for common themes and patterns using thematic analysis (Glesne, 2011). The data were first coded using the Atlas.ti computer program for themes to be used in the research report. Data were also coded manually, which involved the researcher reading the data, marking it by hand, and dividing it into parts (Creswell, 2008). Creswell (2008) recommended using hand-analysis if the database is small (less than 500 pages of transcripts), if the researcher is not comfortable using computers or has not learned a qualitative computer software program. Creswell (2008) recommended analysis software for large databases of 500 pages of transcripts or more, if the researcher is adequately trained in using the software program, if the researcher has the resources to purchase the software program or has access to such a program, or if the researcher needs a close inspection of every word and sentence to capture quotes or meanings of passages. The researcher is adept with computers and has access to a qualitative data analysis program, Atlas.ti. Therefore, the data was first coded by computer. During this analysis stage the data was organized by type—presentations and surveys,—and analyzed while they were collected, alternating between data collection and analysis. This allowed the data to be processed while it was fresh in the mind of the researcher, and this procedure minimized errors in the process. In the next stage of analysis the researcher read the data and marked it by hand in order to confirm and/or correct the computer analysis.

Since this is a mixed-methods study with various types of data collection and analysis, Table 6 summarizes the types of data collected and analysis procedures:

Table 6

## Data Sources and Types of Analyses

<b>Assessment</b>	<b>Data Type</b>	<b>How Collected</b>	<b>Used For</b>	<b>Analysis</b>
FLC Goals Inventory Form	Qualitative	Beginning of Initiative-- Through Goals Inventory Form created by Cox	Research Goal 1 Setting Goals and Outcomes for FLC	Manually using Form Instructions
FLC Interpretation of Results Inventory Form	Qualitative	Beginning of Initiative-- Through Interpretation of Results Inventory Form created by Cox	Research Goal 1 Setting Goals and Outcomes for FLC	Manually using Form Instructions
Faculty Dialog through Discussion, Audio Recordings, Researcher Notes, etc.	Qualitative	During Each Meeting	Research Goals 1 and 2	Coded for Common Themes using Atlas Ti Software and by Manual Coding
Faculty Surveys	Qualitative	Via Email	Research Goals 1 and 2	Coded for Common Themes using Atlas Ti Software and by Manual Coding

Table 6

## Data Sources and Types of Analyses

<b>Assessment</b>	<b>Data Type</b>	<b>How Collected</b>	<b>Used For</b>	<b>Analysis</b>
FLC Goals Inventory	Qualitative	End of Initiative-- Through Goals Inventory Form	Research Goal 1 To determine if Goals and Outcomes for FLC were attained	Manually using Form Instructions
FLC Interpretation of Results Inventory	Qualitative	End of Initiative-- Through Interpretation of Results Inventory Form	Research Goal 1 To determine if Goals and Outcomes for FLC were attained	Manually using Form Instructions
Student Participant Survey on Attitudes and Learning	Qualitative	Through Email Form	Research Goal 3 To determine if Attitudes and Learning had changed because of the initiative	Manually
Pre-test/Post-test Assignment	Quantitative	Through SAM Pathway Feature	Research Goal 3	SPSS Software and Excel Software
Item Analysis of Correct Responses on Post-Test	Quantitative	Through SAM Pathway Feature	Research Goal 3	Excel Software

**Validity**

Several methods were used to ensure the validity of the data, including triangulation, peer review, and member checking. “Triangulation is the process of corroborating evidence from different individuals, types of data, or methods of data collections in descriptions and themes in qualitative research” (Creswell, 2008, p. 266). In the process of triangulation, the inquirer/researcher examines each information source to find evidence to support a theme. This ensures accuracy of the study because the information draws on multiple sources of information, individuals or processes. In this way, it encourages the researcher to develop a report that is accurate and credible (Creswell, 2008). In this study, the researcher used the triangulation method in that evidence was collected from various individuals; i.e, the diverse group of FLC participants as well as the student participants. Various data collection methods were used including presentations and surveys from the FLC participants and surveys and assignment results from the student participants. Using the coding process, the researcher examined the data collected for common themes.

**Ethical Considerations**

One potential ethical issue could have arisen from students not wishing to participate in the study. Faculty, as well as all potential participants, were advised that participation by the students was completely voluntary, and only interested students should participate, and students choosing not to participate were assured they would not be penalized for non-participation. Additionally, the participants of the study were kept confidential from the participating instructors by the FLC facilitator who collected student applications for participation personally. This protected the relationship between

the faculty and the students. Participating students were assigned number labels. Grades obtained from the instructor included all grades – both participating and non-participating students so that faculty were unaware of who was participating—and only the participating students' grade information were measured. Surveys were administered to the participating students via e-mail (e-mail addresses were obtained through the application process) by the FLC coordinator (the researcher). The students of the researcher's course who chose not to participate posed another ethical consideration. The researcher maintained records to document that nonparticipating students' grades were not adversely affected. The researcher advised the students in her course of the name of her Department Chair and a fellow FLC member with whom they could consult if they felt they were being treated unethically by the researcher.

### **Role of Researcher**

The role of the researcher in this study was as the program director and the facilitator of the FLC initiative. As program director, the researcher was responsible for designing, implementing, and overseeing the FLC. As facilitator, the researcher led the FLC. For purposes of this study, the researcher was simply referred to as the facilitator. The facilitator was responsible for coordinating meetings, social events such as retreats or outings, and presentations; i.e., who presents and coordinates items needed such as rooms, projectors, etc., in conjunction with the FLC. In conjunction with the facilitator role, the researcher was responsible for ensuring that the primary members of the FLC clarify goals and outcomes, understand the FLC model, link goals and outcomes to the FLC design, understand models of academic community, develop community building exercises, assess and evaluate FLC goals and outcomes, and sustain the FLC (Sandell,

Wigley, & Kovalchick, 2004). To assist the researcher in this role, the Miami University program directors developed a handbook, *The FLC Program Director's and FLC Facilitator's Handbook*, Sixth Edition, an FLC goals inventory, and a comprehensive planning inventory (Sandell et al., 2004). The handbook was written by FLC program directors who have both served as members on FLCs and directors of FLCs. The handbook includes helpful information for those interested in becoming involved with FLCs. It was the researcher's hope, since this was a new venture for her that the book would serve as a guide of what and what-not-to-do when directing an FLC.

## CHAPTER FOUR: RESULTS

### **Qualitative Data**

The purpose of this study was to implement the scholarship of teaching and learning in the Office Administration Department of a large metropolitan area community college through the use of a faculty learning community (FLC). The research goals for this study are shown below with primary focus on Goal 1 and secondary focus on goals 2 and 3:

1. Describe the processes and resources faculty within the Office Administration Department of a large metropolitan area community college use to initiate and sustain a faculty learning community.
2. Describe any changes in instructional strategies or practice or knowledge acquired through interaction by the FLC members in the FLC initiative.
3. Describe any changes in student learning outcomes in the courses in which members of the FLC implement the planned instructional strategies.

This chapter presents the birth and decision-making processes of a topic-based faculty learning community (FLC) at a community college that is designed to implement improvements in instruction and thereby improve student learning. The FLC initiative was created by the researcher who chose the participants and introduced them to the concepts of FLCs and SoTL. The chapter also includes a description of how the FLC outcomes and goals were set, how the instructional technology and methodologies were decided upon and how the assignments were decided upon. In addition, the chapter presents the results of the qualitative data collected through meeting discussion and



dialog of the FLC meetings and the results of the data collection of the quantitative portion of the study.

**Goal 1: Describe the Processes and Resources Used to Initiate and Sustain an FLC**

In initiating the FLC initiative, the researcher relied on research and information about FLCs by Cox (2002), Petrone and Ortquist-Ahrens (2004), and Sandell et al., (2004). The researcher invited colleagues to participate in the initiative based on Cox's (2004) criteria. Although most teach basically the same material, the participants had a cross-disciplinary background in education and experience in accordance with the definition of an FLC (Cox, 2004) to ensure diverse perspectives to the initiative. The decision-making processes involved discussion and dialogue and agreement by majority. To sustain the FLC, the researcher continually communicated and met with the members.

**Inception of the FLC.** The concept of the FLC at Gaston College originated with this study. The researcher began by acquiring written approval to engage in the initiative from the Dean of the Business and IT Division and the President of the College. Stipends were not available for the participants, so the researcher negotiated with the dean to allow the participants credit toward their professional development hours required by the institution. The researcher was not familiar with FLCs or the SoTL when the initiative began as the participating institution is not a research institution and the faculty do not participate in formal research. So, she first researched the literature about FLCs and the SoTL to determine what they were and institutions that had successfully implemented them. She was a novice at participating in an FLC and new to the SoTL but relied heavily on research data by Milton Cox and Miami of Ohio and other researchers

who had successfully implemented FLCs and the SoTL (Petrone and Ortquist-Ahrens, 2004; Sandell et al., 2004; Nugent et al.; 2008; Schlitz et al., 2009).

The researcher applied through the Institutional Review Board (IRB) of Western Carolina University and was approved to proceed with the study. Using templates provided by Western Carolina University's IRB process, the researcher modified and created consent forms for both primary and secondary participants of the FLC initiative (shown in Appendices D and E). The research showed that an application process was commonly associated with FLC participation (Cox, 2004). The researcher found an FLC application used by Indiana University-Purdue University Indianapolis (2011) and modified it for use with this initiative. Once the participants agreed to participate, they were given the FLC application to complete. In addition, each participant was given a consent form to read and sign. The consent form explained the purpose of the study and a description of expected faculty participation, which included dialogue at each FLC meeting, making group presentations and sharing information from their reflective practices in relation to instructional technologies implemented.

***Planning phase of the FLC.*** In this emerging study, the structure of the FLC was designed during the planning phase of the FLC. In the planning phase of the FLC, weekly and bi-weekly meetings were held by the researcher in the spring of 2014. The common denominator among the FLC members was that none of the participants had previous experience with FLCs or the SoTL. During the initial weekly meetings in the first month, the researcher informed the participants about the purpose, methodology, theoretical framework, and research goals of the study. In doing so, necessary definitions were provided including the definitions for FLCs, SoTL, and instructional technologies.

The researcher conveyed the importance of the study for the community college to the participants explaining: “FLCs have historically been a tool of four-year institutions predominantly, but if this initiative is successful, it could lead to improved teaching and learning in the community college through the adoption of FLCs and SoTL by community colleges.”

In order to ensure that the FLC members were understanding the concepts of FLC and SoTL and what their participation in the FLC indicated, the researcher created and conducted a brief three-question survey to gauge the FLC Participants’ understanding of FLCs, SoTL, and their role in the FLC. The survey follows:

1. In order to ensure that you understand the mission of the study, please tell me in your own words what an FLC is.
2. In order to ensure that you understand, please tell me in your own words what SoTL is.
3. Tell me in your own words what your role is in the FLC.

The participants indicated through their responses to the above survey that they did understand what FLCs and SoTL were and their role in this initiative.

During the implementation stage, the FLC participants also set the goals and outcomes for the initiative, identified the instructional technology and its assignments and methodology, and developed outcome and assessment instruments for evaluating student learning to measure the success of the initiative.

***Procedure for setting goals and outcomes.*** In order to determine the goals that the FLC participants would like to achieve through the initiative, the researcher followed a process outlined by Cox (2004) for designing and

implementing an FLC and establishing goals. In setting the goals for the initiative, the FLC participants were given the Faculty Learning Community Goals Inventory (see Appendix G) and the Faculty Learning Community Goals Inventory: Interpretation of Results (see Appendix H) created by Sandell et al., (2004) and modified by Cox (2009) to complete. In the Goals Inventory, the participants were given 25 statements and asked to circle the number from 1-5, with 1 being Very unimportant to 5 being Very Important, that best corresponded to the degree of importance they placed in relation to the outcomes they would like to achieve through the faculty learning community initiative. They were given the following five foci for the FLC initiative and asked to rank-order them from 1-5 with 1 being least important and 5 being most important:

Group 1 - Thinking about teaching beyond the classroom – in its broadest implications

Group 2 - Learning more about a specific pedagogical tool or strategy

Group 3 - Collegueship and learning from others

Group 4 - Developing increased teaching skill and ability

Group 5 - Carrying out a teaching project and sharing it with the scholarly community

Each participant completed the printed inventory. The Interpretation of Results form tallied the total score for each group of five items on the Inventory form along with the number of scores of “5” recorded for each group. The highest score and the most 5s on the Interpretation of Results form dictated the major goal of the FLC initiative. A tie among the scores on Groups 3 and 4 on

the Inventory Results form equated to dual major goals for the FLC initiative. The third group of items focused on developing a sense of connection to others and the institution as the major goal of the FLC. The fourth group of items focused on enhancing general teaching effectiveness as the major goal of the FLC.

The outcomes for the initiative were to increase faculty and student learning. The researcher expressed desire to set these goals following the FLC and SoTL model created by Cox (2002). In doing so, the researcher clarified that she would like to improve teaching effectiveness through this initiative in introducing the institution to faculty learning communities and creating a culture of collaboration among the FLC participants. She explained that she would also like to improve student learning through the initiative as evidenced by improved test scores.

***Choosing instructional technology.*** The FLC Committee analyzed the focus course for structure and content, instructional technologies and teaching; i.e. the skills assessment manager, and how to gauge student learning. The focus course is OST-137 (see Appendix F for course syllabus). It is a course similar to an Introduction to Computers course wherein students learn about computer basics, the Internet and the Microsoft Office Suite. The course was chosen by the researcher as the focus of the FLC because it is a first-year course with no prerequisites, it is a required course for various departments in the college, and it is an outcomes course for the college's QEP. Therefore, it met the technology criteria of the FLC. In addition, the focus course would be consistent across all

sections in that it had been certified through the institutions' QEP SAIL Certification process. Thus, everyone who teaches the course must use the same Blackboard course, textbook, and lecture material regardless of the mode of course delivery, i.e., seated, hybrid, or online. Participant 6 commented: "OST 137 is an outcomes course for Southern Association of Colleges and Schools (SACS) Accreditation as well as CIS 110, and all sections of either of the courses are required to administer the same assignments in order to appropriately measure the outcomes."

One goal of this initiative was to improve student learning. Therefore, the FLC members were charged with how to gauge student learning. When asked how student learning should be gauged for this initiative, Participant 1 suggested: "testing is a way to gauge student learning." As the FLC members discussed how best to capture the data, Participant 5 suggested a pre- and post-test format. She explained: "taking a pretest before any material is introduced, and then taking the same test again after studying the material should indicate whether the student did learn the material."

Since the course was already using SAM as the instructional methodology for the submission of assignments, the discussion naturally turned to SAM and how to use it to accomplish the proper means for capturing the data for the initiative. Participant 5 suggested copying the end of unit test assignment for each unit and adding it as a pretest at the beginning of each unit. The researcher stated "in the interest of improving learning, we should also be able to provide individual help to the students in order for them to be successful." Participant 5 referred to the frequency analysis tool in SAM that provides information on how many students missed each task on the pretest and said

instructors could use that information to dedicate more lecture and demonstration time to those particular tasks prior to the post-test.

Participant 2, who is on the board for SAM in testing and troubleshooting the product, introduced a product in SAM, called SAM Pathways that uses a pretest/post-test format. The SAM Pathway technology was not new to SAM, but it was new to the instructors of the focus course. Participant 2 explained that the product included a remedial feature to cater to individual students in helping them better learn the specific items they missed on tests or assignments.

Participant 2 demonstrated the technology for the committee using a computer, projector and screen. She explained that the SAM Pathways feature had two forms: a pre-test/post-test format and a pre-test/assignment/post-test format. Participant 5 asked about the pretest/assignment/post-test format and questioned: “what is the assignment between the pretest and the post-test?” Participant 2 said that she had only used the pretest/post-test format in her courses, so she was not familiar with the assignment that is completed between the pretest and post-test. However, she explored the pretest/assignment/post-test format on screen before the FLC members using a computer and projector. Through the exploratory exercise, the committee discovered that the assignment between the pre-test and post-test was a training assignment, and that it was a remedial assignment individualized to each student’s pre-test results to help them on the post-test with the material missed on the pre-test. Although the training assignment was individualized for each student, the items on the tests remained consistent across all sections of the course. The training assignment just provided the individual student with

additional help in areas needed so that the task could be completed successfully by the student on the post-test assignment.

The SAM Pathways feature was chosen as the instructional technology for the initiative for several reasons. First, it provided individualized remedial help that would require students to practice the task missed. Second, it would focus the students' attention where they needed it. Lastly, the committee felt that it would help the students learn the material. So, given the input of the FLC committee members, and in the interest of improving student learning, it was decided that a pre-test/assignment/post-test format would best gauge student learning for this initiative.

The SAM Pathway altered the course structure of the OST-137 course in regard to assignments. The course format prior to this initiative did include a training component in each chapter, which meant that there were four trainings per unit, and there was no pretest. The number of assignments was lessened from 16 training assignments for the semester to four comprehensive training assignments. Therefore, instead of completing a training for units A, B, C and D separately, the student completed one comprehensive training for units A-D. The 16 training assignments that were removed from the course for this initiative were much shorter in length than the one comprehensive training. The per unit training assignments contained from 10-30 tasks as compared to the comprehensive trainings for the initiative, which could consist of up to 116 tasks depending upon how the students scored on the pretest. The altered format for the initiative required students to complete a comprehensive training assignment based on the results of the pre-test. The training assignment was individualized to each student's pretest results and required more training based on tasks that were not completed



correctly in the pretest. For example, if the student only missed 20 of the 116 items on the Pretest, the training assignment only covered those 20 items, for example. This was not new material – it was remedial help on tasks missed on the pre-test by the student. The removal of the individual training assignments and the addition of the comprehensive training assignment did not have a negative effect on the course because the comprehensive assignment was the same as the four individual chapter trainings combined into one training assignment that was longer. It may have affected the quality of the students' learning, however, in that many of the students failed to complete the SAM Pathways assignments. Therefore, the students may not have learned the material satisfactorily.

The modified format for the course for this initiative required a comprehensive pre-test for each Unit covering each chapter of the unit. The pre-test followed the format of the course skills exams and consisted of up to 116 or more tasks. Upon completion of the last chapter of each unit, the students were required to complete a post-test that mirrored the pre-test.

Participant 5 helped the researcher implement the SAM Pathway assignments into all sections of the Fall 2014 OST-137 course. The researcher and Participant 5 checked the OST-137 course sections to ensure that the SAM Pathway assignments were present in all sections and that the instructors knew how to access them. When installing the assignments during the summer of 2014, Participant 5 discovered that the SAM Pathway assignments had to be accessed through the calendar feature, a feature in SAM Gaston College had not previously used. In order to use the SAM Pathways feature, Participant 5 and the researcher added the calendar to the sections. The researcher and Participant 5

demonstrated to Participants 6 and 8 on-screen using a computer and projector how to use the calendar feature in SAM and access the SAM Pathways assignments. Participant 5 also discovered in working with the SAM Pathway that the completed assignment grades were accessed in a different part of the gradebook. So, this too was demonstrated for Participants 6 and 8.

The researcher had planned to use a tool in SAM called Frequency Analysis Reports to provide remedial instruction to individual students. The Frequency Analysis tool showed items that students missed on trainings and tests by the task. It showed how many students completed the task and how many completed it correctly and incorrectly. However, she discovered that this tool was not available for use with SAM Pathways. The researcher made the FLC participants aware of this issue as this meant they would have to look at each student's results individually in order to determine what areas needed more attention in lecture and/or demonstration.

***How to gauge student learning.*** The FLC committee analyzed the course assignments to determine what to do with the students' scores and how to gauge student learning. The final exam for the focus course consists of four parts: a Word portion, an Excel portion, an Access portion and a PowerPoint portion, with each portion having a possible score of 100. According to Participant 6: "the college considers the outcome successful for SACS accreditation if all students enrolled in the course for the semester have an aggregate score of 80% of the items correct on each portion of the final exam. This means that the average score of all students in all sections of the course taking the test averages 80% of a possible 100%." This meant that each individual student did not need to score 80%, as long as there were students who scored well above 80% to offset

the lower scores and average 80% achievement on the post-test. She explained: “the college chose the 80% criterion as an outcomes measurement for SACS accreditation because similar institutions in the region were using similar models.”

Participant 5 noted: “Excel seems to be the weak point in the course outcomes as the students’ average scores collectively had been consistently below 80% since the institution began collecting the data.” Reviewing the data for the last few years with the FLC members revealed that the students were achieving the 80% or better outcome successfully in the Word, Access and PowerPoint portions of the final exam. However, the students for the last two years failed to achieve the 80% target for the Excel portion of the exam. The researcher suggested that the focus for this FLC initiative should be on Excel since the aggregate scores of the last two years had been below 80%.

The researcher suggested that the FLC follow the criterion of the college in analyzing student learning improvement in that, if the students’ score was 80% on average for the group of all students who took the post-test, this would be considered as achieving the goal of improving student learning. It was decided that, in order to compare apples to apples when comparing to the colleges’ SACS data, the scores on average for the entire group of students in the sections (not just the study participants) for the fall of 2014 would need to be captured.

The researcher wanted to collect data only on the Excel unit, but Participant 5 stated: “for consistency in the course and to lessen student confusion and encourage the students to complete the assignments, the pre-test/assignment/post-test SAM Pathway assignments should be given for the Word, Access and PowerPoint units also.”

Participant 6, who also teaches the course, agreed: “having the students complete the

assignment for all units would be easier and cause less confusion in the course.” The FLC decided to implement the pretest/assignment/post-test assignments for all of the units for consistency; however, only the Excel data were relevant for this initiative because that is where the scores were lacking in the institutional data and to make data analysis simpler for the study.

Participant 5 pointed out: “since we varied the assignment structure of the course through this initiative, we need to look at the course grade policy to see if changes need to be made to it for this initiative.” The researcher pulled up the grade policy for the focus course on the projection screen and explained that, in this course, the assignments were weighted as such:

- Tests – 35%
- Labs – 35%
- Participation Assignments and Trainings – 15%
- Final Exam – 15%

In the pretest/assignment/post-test format, the pretest assignment was categorized as a test and counted 35%, the training assignment was classified as a training exercise that counted 15%, and the post-test assignment was also categorized as a test and counted 35%. This would mean that SAM Pathway assignments, when weighted with the other assignments completed in the course, would count approximately 35% of their grade.

Participant 5 suggested: “why don’t we count the pretest as a participation assignment rather than a test so that it will count 15% of their grade rather than 35% of their grade. Participant 2 suggested: “in addition to changing the pretest to count as a 15% participation weighted grade, I think we should also give the students a grade of 100 for simply completing the assignment.” Participant 5 agreed with Participant 2: “changing the weight of the pretest assignment and granting a grade of 100 for simply

completing the assignment could encourage the students to complete the assignments.” The researcher advised that granting the students a grade of 100 for this assignment, which is not normally even in the class, did meet the Extra Credit option offered to the students for agreeing to participate in the study.” Therefore, the SAM Pathway assignments would, when weighted with the other assignments completed in the course, count for approximately 24% of their grade. The FLC committee decided that the suggested variations to the course grading policy could both encourage the students to complete the assignments and preserve the integrity of the course grading schema.

The researcher advised that she would be collecting the quantitative data from SAM as the students completed the SAM Pathways assignments. She explained that she would need the data from each of the sections for the SAM Pathways assignments. Participant 2 suggested: “the researcher should be added as an instructor to each of the fall 2013 and fall 2014 sections of SAM so that she can garner the data and present it as needed.” The FLC participants discussed the matter and determined that, if the instructors of the course did not have a problem with adding the researcher as an instructor in the course sections, they also would be willing to add the researcher to the course sections.

## **Goal 2: Describe Changes in Instructional Strategies or Knowledge Acquired by Faculty through Qualitative Data Collection in FLC Meetings**

**Growth of FLC.** Over time and through discussions as the FLC meetings continued, the FLC developed and the FLC members became more comfortable in sharing through discussion and dialog and learned from each other. This section presents their discussions and describes how their findings emerged.

***Meeting format.*** In this mixed methods study, qualitative and quantitative data were collected simultaneously. Quantitative data were collected from the student assignments and presented at each meeting. Through discussion about the quantitative data discussions, qualitative data were collected about the FLC. The research followed Miami of Ohio's structure for FLCs by Cox (2004). This meant that the FLC Committee met every two weeks during the fall of 2014 while quantitative data were being collected. The format of the FLC meetings followed Miami of Ohio's guide (Cox, 2004). This format called for introduction of discussion topics, reflection on past topics or actions, or presentations to be given.

The format was very similar to Chism's (2004) four-stage model of Planning, Acting, Observing and Reflecting, which is the theoretical framework of this study. For example, the FLC committee would discuss an issue such as how to motivate students to complete the SAM Pathway assignments and agree on a plan of how to address the issue, such as trying a different teaching methodology. They would collectively decide to enact the plan of action; i.e., the new teaching methodology. Then they would observe the results and reflect on whether or how the action affected the issue; i.e., how and whether the teaching methodology motivated students to complete the assignments.

***Quantitative data presented at each meeting.*** The researcher compiled data collected from the quantitative portion of the study and presented it to the committee at each FLC meeting to promote dialogue. The researcher assigned a student identification number to each of the students in the study to preserve confidentiality. The researcher kept the students' names and identification numbers in a list in her office. Prior to each meeting, the researcher went into the SAM Pathway instructional technology of each of

the seven sections of the OST-137 course and gathered the students' scores on the pre- and post-test assignments. She then manually typed the data into an Excel spreadsheet she created. The spreadsheet contained three columns: Pretest, Post-test and Improvement (see Appendix I for a sample of the spreadsheet). The researcher provided the list of students down the left side of the spreadsheet listing from S1-S104. The student scores were recorded in the appropriate columns. If the student had not completed an assignment, the researcher listed that as 0. In the Improvement column, the researcher calculated an improvement score by taking the difference of the pretest and post-test scores. She then presented the data collected from the students' scores on the pretest and post-test assignments from the Word, Excel, Access and PowerPoint Units to the FLC committee members using a computer, projector and projection screen. The FLC members reviewed the data for how many students completed the assignments and for overall improvements of post-test scores over pretest scores. The data showed that a fourth of the students did not complete the pretest assignment for Microsoft Word.

The researcher used this information to promote dialogue among the FLC members as to how/what the committee could do to increase student learning through improved post-test scores or to encourage the students to complete the assignments. FLC members used this information to discuss the students' scores, to speculate as to why they were not completing assignments, or to suggest ways in which teaching methods could be varied to assist with these issues. Although this information was used in discussions by the FLC Committee in gathering qualitative data, the spreadsheet data showing the results of the students' scores on the pretest and post-test are pertinent to the quantitative portion of this study and are included in that portion of this document.

The FLC members discussed the fact that so many students were not completing the SAM Pathways assignments. Participant 2 questioned: “why are so many students not completing the assignments?” She stated: “I don’t have that problem in CIS 110; the students complete their assignments.” Participant 4 stated: “I don’t have that problem in my CIS 110 classes either.” Participant 5 stated: “I don’t know why they are not completing the work. It could be because they are still learning about the course, but with this being the fourth unit, the students should be familiar with SAM at this point.” The researcher suggested that maybe the FLC should talk about teaching methodologies to see if Participants 2 and 4 were doing something differently to get the students to complete the assignments.

***Teaching methodologies.*** In discussing instructional methodologies for the course, three predominant methods for teaching the focus course emerged:

1. A traditional professorial role wherein the instructor delivers information to the students.
2. A mixture of the traditional lecture/demonstration format combined with self-directed learning.
3. Facilitator.

The researcher and participants 5 and 6 identified themselves with the role of a traditional professor. The researcher explained: “when I teach OST-137, I complete the tutorial in class with the students. I demonstrate how the task is completed in the textbook and discuss the other ways in which it can be done.” She explained that she used a lecture/demonstration and hands-on participation method to teach the course while lecturing informally, and allowing students to ask questions or seek help as needed. She



said: “I feel this method ensures that the students have been introduced to each of the chapter tasks and they have performed them and therefore they should be able to complete the labs and tests on their own.” Participant 5 stated: “I use that method in teaching my seated sections.” Participant 6 said: “I mostly teach the course online now, but when I taught it seated, I also used that method.”

Participants 3 and 8 identified themselves as traditional professors, but they incorporated self-directed learning as well. The researcher asked the participants to explain their methodologies for teaching the course. Participant 8 stated: “I demonstrate the tasks for the students too, but I spend more time lecturing about how the tasks are performed. I don’t do the tutorial with them.” Participant 3 stated: “I followed this method when I did teach the course.” Participant 8 stated: “I feel that the students will learn the material better if they practice it hands-on themselves instead of watching me perform the tasks. I think the students get bored with that.” Participant 3 concurred: “I will help students in any way I can, but I feel they must read the chapter themselves and perform the tasks. I think letting them complete the tutorial on their own forces them to do this.”

Participants 2 and 4 identified themselves as being facilitators. Participant 2 stated: “I feel that students learn better when their learning is self-directed.” She explained, “The same course materials are available for seated, hybrid, and online sections of the course in Blackboard.” She stated: “Blackboard contains short instructional videos of the more difficult tasks in the chapter as well as notes for students which outline a summary of how to complete the chapter tasks.” She said: “The difference in my sections is that I don’t lecture. I feel that going over the chapter with the

students isn't required because they are required to read the material, so going over it would just be repeating it." Participant 2 added: "I believe that, with the material covered in this course, the textbook and course materials provided are of sufficient depth to permit the students to successfully complete the course assignments." Participant 4 stated: "I also follow this method."

The participants identified themselves by their statements with certain teaching styles although they did not have names for the types of methods that they used in teaching. The researcher performed research into various teaching methods and presented the methods to the participants for discussion. The researcher and FLC members agreed that their methods were closest to the ones identified in numbers 1-3 above.

*Other methods for promoting student success.* The committee discussed other methods the institution employed for promoting student learning. They identified several methods including referring students for a tutor for additional help, varying course policies such as No Late Work policies, and dropping grades. Students have two options for tutors: they can obtain a personal tutor from the Learning Center to help them throughout the semester, or visiting the computer lab classrooms where lab tutors are available all day, every day to assist students. All of the instructors had a No-Late Work accepted policy and a No Make-up work policy. Participant 3 said: "I have the policy, but I will occasionally accept late work from students for extenuating circumstances like illness/hospitalization, family deaths, etc." The researcher stated that this was also her policy, but if she determined that a student was struggling and really trying, she would work with them. Participant 5 said: "I do not accept late work for any reason."

The researcher advised the FLC members that the committee needed to find ways to alter teaching methods and policies in an effort to find best teaching practices for the initiative. In order to determine if altering class policy would help the students, the researcher asked the instructors teaching the focus course, that if need be, would they be willing to alter their late work policy and grant time extensions to allow students to complete the Excel assignments. The researcher felt that this may encourage some of the students to participate more in the class by completing assignments. Most participants agreed to do so, but some would not alter their policy. The researcher attempted to negotiate with the members who would not alter their policy explaining that this may help students to complete assignments. Participant 5 stated: "I will help if I can, but I won't alter my late work policy. It is not fair to the students who take the time to complete the work on time and they have schedules and life-issues too." Some instructors drop low grades in their courses due to circumstances beyond a student's control to account for the no late work policy. Participant 5 said: "I drop grades in each category of my grading schema to allow students to have the grades dropped for a full unit (at least) to allow for illness, death, or other circumstances which cause absence or non-completion of assignments."

In an effort to encourage students to complete the SAM Pathways assignments and improve learning, the researcher implemented several ways in which to alter teaching methods. In doing so, the researcher followed Chism's (2004) model of Instructional Technologies, which is the theoretical framework for the study. The first step is to plan. Excel is a spreadsheet software designed to perform numerical analysis through mathematical equations. Many students have a difficult time with math. They relate

Excel to math, and they are apprehensive about entering formulas in to Excel. In an attempt to help students perform better on the SAM Pathways assignments and improve learning, the researcher explained that she was going to be more basic or fundamental and take more time and effort to explain each part of the formulas in the material to ensure that the students understood the calculations. The researcher advised the participants that a dozen students in her courses did not complete the pretest assignment. So, she was going to offer them the opportunity to make up a missed lab or test to improve their overall grade average (since these assignments count 35%) but only *after* they completed the Excel pretest. She explained that this would vary the late work/no makeup work policy also.

The researcher asked the other instructors to implement these policies. The online instructors said they were unsure of how they could provide more fundamental teaching. One offered to give the students the option to make up missed assignments if they completed the SAM Pathways assignments. Participant 2 suggested: “the students need to be reminded that completing the pretest will grant them a grade of 100.” Participant 4 said: “reminding students that the post-test grade counts 35% of their grade may prompt them to complete it.” The researcher implemented the two varied teaching methods in her two courses and gave reminders about the extra credit and the tests counting 35% of the grade. The next step in Chism’s (2004) model was to act. In this case, the researcher implemented the steps to vary teaching methods, allow make-up work, and remind students of the extra credit and weight of the post-test.

Step 3 of Chism’s (2004) model is to observe. The researcher observed the results of the action of implementing the varied teaching methods. The last step is to

reflect. The researcher reflected that she had some success with varying the teaching methodologies for the course in motivating students to complete the assignments. The researcher shared that, allowing the students to makeup a missed assignment after taking the SAM Pathways pretest was somewhat successful in that only one student failed to complete the pretest assignment in her two sections. However, she added, about one-third of the students did not complete the post-test in spite of her efforts. This method consisted of altering the late work/no makeup policy to accept a makeup assignment late and allow students to complete the pretest assignment. The researcher stated that, upon reflection, although varying the late work policy did urge students to complete the pretest assignment, it was not successful in getting them to complete both assignments. She further shared that she did not feel that varying the late work policy was a good method to try to motivate students to complete assignments because structure was needed in the classroom. The researcher reflected:

I was happy to vary teaching methods to be more fundamental, and I enjoyed the interaction with the students. I am happy that a third of them performed better on the post-test. At least, I feel like I made a difference.

In reviewing the data, it was discovered that approximately 37 percent of students in the initiative were not completing the SAM Pathway assignments by the second unit. The data showed that the number of students who did not complete the post-test doubled that of the students who did not complete the pretest. The data also revealed that many of the students had negative scores because they scored higher on the pretest than the post-test. Upon inspection, the researcher discovered a grading issue with the SAM Pathway feature that accounted for the negative scores. However, the students who were

completing the assignments were improving in post-test scores over pretest scores. At this point, the researcher urged the FLC participants to search for ways in which teaching methods could be varied in an effort to help or motivate the students to complete their assignments. The researcher advised: “we have discussed our various teaching methodologies for the course.” The researcher noted that, although the instructors had different teaching methodologies for the course, all sections used the same materials, i.e., textbook, SAM, lecture notes, videos, PowerPoint presentations, etc. that had been reviewed by the institution and certified as being of sufficient depth to allow student success. Yet, she noted, students across all instructors’ sections were not completing the SAM Pathways assignments. Participants 2 and 4, who used a different teaching methodology for their courses, revealed that they did not have the issue of students not participating in the course. Their courses were very similar in content and materials to the focus course. Even the publisher and skills assessment manager were the same for both courses. The researcher questioned whether the difference in student participation stemmed from the various teaching methodologies, or from other factors.

The FLC participants began to discuss possible reasons to explain why the students were not completing the work. The participants named several possible reasons including student withdrawal from the course, the student’s major, the length of time the student had been in school, and work/family/life commitments. The instructors for the OST-137 course revealed that they had all had several students to drop the course. The researcher asked them to forward a list of the withdrawn students so that the records could be updated.

Participant 2 stated: “maybe the students’ major plays a role in whether they complete the work.” Participant 5 said: “I don’t understand why that would matter.” Participant 1 said: “Maybe the major dictates a different caliber of student”.

Participant 6 asked: “Could it be that students who have been at the college for a year already are more established than the first year students of OST-137 and that is why some students complete the assignments better and more consistently?” Participant 3 stated: “that could be a reason.” The committee also discussed whether students who had been attending the college for a year or longer were more established than the first year students of OST-137. Participant 3, who is the Persistence and Retention Coordinator for the Department, stated: “there could also be other factors—the students may have a family and full-time job requirements, illness, no access to the Internet.”

Other possible factors identified were whether the sequence of the assignments mattered, if the course contained too much work and the students were overwhelmed, or maybe in that the students being first-year students, were having issues with technology such as learning to maneuver Blackboard and SAM. Participant 2 stated: “second-year students have been attending classes and presenting assignments for a year and are probably more comfortable with computers, Blackboard, and possibly time-management skills.”

Participant 6 said: “I wonder if the sequence of the assignments matters.” The researcher explained: “the course has always followed the same order in presenting the assignments: Word first, followed by Excel, Access and PowerPoint.” Participant 3 stated: “I wonder if offering the units that seem to be more difficult for the students – Excel and Access – sooner in the semester would promote participation and improve

learning?” Participant 5 said: “I can’t see why that (the sequence) would matter.” The researcher pointed out: “the sequence has not been varied and we are already on the second unit this semester, so it is too late to change the sequence this semester.”

Participant 3 stated: “maybe the course contains too much work and the students are overwhelmed. Or, maybe in that the students are first-year students, they are having issues with technology.” Participant 6 said: “I can understand that could be a part of it.”

Participant 2 stated: “second-year students have been attending classes and presenting assignments for a year and are probably more comfortable with computers, Blackboard, and possibly time-management skills.”

The participants continued to offer suggestions for the low level of participation in the initiative. Participant 3 stated: “class size could be a factor.” The researcher referred to the data on the projection screen and reviewed it with the participants. The researcher noted the following: “One section had nine people in it, and three of the nine did not complete any of the SAM Pathways assignments.” She advised: “Another section had 22 people in it, and 9 of the 22 did not complete any of the SAM Pathways assignments.” She stated: “Another section had 15 students, and 10 of the 15 did not complete the SAM Pathways Assignments.” The researcher said: “In yet another section which had 20 students in it, 11 out of the 20 did not complete any of the SAM Pathways assignments.” So non-participation ran from about one-third to one-half of the students. Given these were small numbers to judge against, non-participation seemed higher than usual in this semester.

Participant 4 identified another possible factor for non-participation: “the delivery method of the course could be a factor.” The researcher advised that all of the sections



discussed under the class size factor were seated sections of the course. The researcher reminded the group that there were four seated sections of the course this semester and one online section, all of which began as regular start classes (the first day of the semester), and two sections of the course were online late-start classes. The researcher noted: “Of the 104 student volunteers in the initiative, 68% of the students were in seated sections and 32% were online students. At this stage, more than half – 54% - did not complete one or both of the SAM Pathways assignments.” Overall, 17% of the students withdrew from the study and the course during the fall of 2014, 11% withdrew from the course who were not enrolled in the study, and 33% did not complete one or the other of the SAM Pathway assignments.

Participant 2 said: “student test scores need to be looked at as a factor to see if those with negative scores actually completed the tests or if they just answered a few questions and closed it out.” Participant 2 also noted: “how long they were in the test was a good indication of whether they actually attempted the test or just attempted a few questions and closed it.” The researcher pulled up the data on the projection screen. In looking at each of the four regular start sections, the majority of the students were in the test from over an hour to over three hours. The participants could not tell from the section view whether students attempted to answer all of the questions, or whether they answered some and closed it. The researcher noted eight of the student volunteers with time limits (the time the test was open) ranging from 4 minutes to 45 minutes. The FLC members looked at the individual reports for those students. The researcher noted: “Of the eight students that were in the test under an hour, half of them completed every task on the test.” Participant 5 stated: “It would appear that students who are not in the test

long are guessing on the attempts when completing the assignment and that is why some show short time periods.”

Participant 2 said: “individual performance could also be looked at.” The researcher noted that the scores on the Excel spreadsheet on the screen were the actual scores for the students. The researcher added that the OST courses, were on a 7 point grading scale, so a 93 was an A, 85-92 was a B, and 77-84 was a C.” The researcher noted that of the 43 students taking the post-test in the four regular start sections of the course, 3 of the students made an A, 9 of the students made a B and 3 made a C. The researcher also advised that, as far as having a significant improvement in the post-test score over their pre-test score, only six students achieved that.

The participants also discussed student engagement/motivation. Participant 2 stated: “I think we can’t motivate them; I think their motivation has to come from within.” Participant 5 said: “I feel like, at some point, the students have to take some responsibility for their own success.” Participant 5 said: “I think we do all we can to help them, and they have to help themselves sometimes.”

Following the meeting, the researcher reflected on the dialogue of the meeting. The FLC participants had identified several important possible factors as to why students were not participating in class including:

1. Class size
2. Course delivery method (seated or online)
3. Student achievement
4. Student engagement
5. How to vary teaching methods to improve student learning.

The researcher conducted a brief survey based on items discussed in this meeting as well as the last meeting in an effort to find possible reasons for the non-participation of the students and how to promote participation. The instructor surveyed the participants on each of these items that the participants identified as being possible factors affecting assignment completion by the students. In addition, the researcher surveyed the participants on teaching methods and how they may be modified to help students succeed. The survey follows:

1. Please tell me in your words, how you feel that class size contributes to whether the students completed the assignments or not.
2. Please tell me in your own words how you feel that the class delivery method (seated or online) contributes to whether the students completed the assignments.
3. Why do you feel, in your words that so little students improved on the post-test scores as compared to their pretest scores?
4. Please tell me in your own words how you feel that we can get students to participate in our courses? In other words, how can we motivate them to complete assignments or help them to participate more?
5. How do you feel that we can vary teaching methods to reach more students to encourage them to participate and improve learning?
6. Please describe your teaching methods and expound on whether they work to get a good portion of the class to complete the assignments.

Using thematic analysis, common themes emerged from the data as indicated by the FLC participant responses below. Thematic analysis is a procedure wherein data are

analyzed for themes and patterns (Glesne, 2011). This method was used to identify similarities and differences among the FLC members. Data were collected through observation, discussion and surveys. The data were analyzed using Atlas ti first and then manually, by hand for emerging themes.

### **Common themes.**

*Theme 1: Class size has little effect on student learning.* In response to question 1, a theme that emerged was that the FLC participants believe that class size has little effect on student learning.

#### Participant 1:

“I feel that class size is somewhat independent of the response rate...I feel that participation or non-participation lies solely within each student.”

#### Participant 2:

I'm not sure it's class size, but the student's perception of the workload and the understanding of the grading scale...The way class size might affect this is in how we can reach out to students to make sure they understand – When you have a class of 30 students, it is difficult to reach out to each one to make sure they understand the commitment needed.

#### Participant 4:

“I don't think it's related to class size. I just think some student's place more emphasis on their education and do the work than others. I think it has to do more with generation and where importance is placed.”

#### Participant 8:

“I feel class size has no bearing on a student's success.”

These comments reveal the position of the majority of the FLC participants, who did not feel that class size was a factor in whether students participated in the course. However, there were a few who disagreed, and felt that smaller classes were more effective in student participation. The literature is divided on the issue as well. There are proponents of large classes and proponents of small classes. The academic community has not found consensus on the issue of class size as related to student outcomes (Mandel & Süssmuth, 2011). Most of the research that examines student learning and class size includes other variables including student, professor, and course variables (Johnson, 2010). The variables are combined to create an image of the teaching and learning environment of the class (Chapman & Ludlow, 2010). In this study, class size did not have a bearing on student participation. The students did not participate across various class sizes as indicated in the FLC meeting dialogue.

***Theme 2: Delivery method has little effect on whether students participate in class.*** The responses to question 2 indicate that the FLC participants felt that the class delivery method had little effect on whether students participate in class. Instead, they attributed it to the student and their characteristics, such as determination or motivation, or preference for class delivery methods.

Participant 1:

I would have thought the online students would have performed better than the seated students. The reasoning behind my opinion is that I feel in

order to take an online course, online students must be very regimented and structured in order to succeed.

Participant 4:

“Students who do well in an online class realize that learning the material lies mostly in their hands...i.e.,...you have to read the material, understand, ask questions and follow a timeline.”

Participant 5:

The hardest part for online learning is that students have to be self-motivated. It is hard when students need someone standing in front of them reminding them to complete the work because in an online class, you do not have that option.

Participant 8:

“Online students seem to remember deadlines and submit work on time. Seated students, even with reminders in class, do not.”

The FLC participants were divided on this issue as well, but the majority did not feel that the delivery method of the course was relevant to student learning. This could be due to the fact that, at this institution, all course content, materials, and methods of evaluating students are the same. The instructor is really the only variable in the course. However, the research agrees. There have been numerous studies performed comparing face-to-face and online learning and whether there is a significant difference in the two with mixed results (Garman & Good, 2010). The problem identified mostly with online courses is that they lack the interaction element of the seated classroom which is a necessary component in

the learning process (Driscoll, Jicha, Hunt, Tichavsky, & Thompson, 2012).

Many online courses include interaction through assignments, discussion boards, and email; but some researchers feel that this cannot replace face-to-face interaction (Driscoll, et al., 2012).

Research indicates that some students prefer online learning to seated courses for many reasons including close proximity, to accommodate their work and family care schedules, or to complete a program (Garman & Goode, 2010). Yet, the research does identify students who have a preference for online learning to have certain characteristics such as their attitude and motivation level (Wong & Fong, 2014). Researchers agree with the FLC also that online students must be able to work independently and be self-motivated as well (Wilson & Allen, 2011).

***Theme 3: Students performed poorly on assignments because of lack of commitment, engagement, or motivation.*** In this study, 23 of the students in the seated sections showed some improvement in the post-test score over the pretest score as compared to 11 of the online students. It is important to note that there were only 33 students who were taking the course online this semester as compared to 71 students who were in seated sections. Therefore, the seated students more than doubled the online students. In response to question 3, the FLC participants felt that the students did not perform well on the SAM Pathways assignments because of lack of commitment, engagement or motivation. Participant 3, the Persistence and Retention Coordinator for the college speaks with many students referred to her by instructors who are not participating in class. Her comment below summarizes the things told to her by students and

serves as an indicator of why the FLC felt the students were not committed or engaged in the course:

A large number of our students are new to higher education and they seem reluctant to avail themselves of the resources available. They can get tutors, but they don't. They can contact instructors to ask questions, but they don't. They sign up for online classes without having a dependable Internet connection available. They order a textbook over the Internet to save money, and it takes six weeks for it to arrive—and it comes without the code they need for the proprietary testing software. They sign up for a course that requires Microsoft Office and the only computer in the house is an ancient MAC.

Participant 1:

From the low percentage of those taking the assessments, it is apparent that the students did not feel taking the assessments were important; therefore, it is understandable that those that did take it would feel lack of importance and not perform very well.

Participant 2:

“They did not commit to learning the material. They simply were accepting of their grades and did not desire to improve.”

Participant 4:

“Some students take the pretest just to do it...again not placing an emphasis on learning.”



Participant 5:

In the pretest, there were so many questions. I think students just marked answers to get through it without really reading the questions and putting forth an effort in completing it correctly. I think it was just one of the assignments where they could check off that they completed it so they did not take it as seriously.

Participant 6:

“Many did not take the pretest/post-test. Too many questions – took too much time.”

The FLC members attributed the students’ low achievement on the SAM Pathways assignments to a lack of commitment to learning the material on the students’ part. The researcher attributed the lack of participation to a lack of student engagement or motivation. The research shows that there is a relationship between student engagement and performance (Bakker, Vergel, & Kuntze, 2015). In fact, according to the research, engagement is crucial to learning and achievement (Kahu, 2013). Engagement and motivation are closely related and the terms are often used interchangeably (Liem & Martin, 2012).

An individual’s level of motivation and engagement is directly related to the time and effort they devote to an activity (Liem & Martin, 2012). According to Fredricks and McColskey (2012), “Motivation is the underlying reason for a given behavior” (p. 765). Kahu (2013) defined engagement as: “An evolving construct that captures a range of institutional practices and student behaviors related to student satisfaction and achievement, including time on task, social and academic integration, and teaching practices” (p. 759). Others state that

engagement has three dimensions: behavioral, emotional and cognitive (Fredricks & McColskey, 2012). Behavioral engagement includes participation in class, emotional engagement includes interest in class, and cognitive engagement is recognition of the relevance of education and the desire to do well (van Uden, Ritzen, & Pieters, 2014).

The OST-137 course integrated sufficient content, materials, and assessment methods for a first semester student to successfully complete the course with a passing grade. The students were given a grade of 100 for simply completing the test, and many failed to complete it. The researcher contends that this reflects a lack of engagement on the part of the student. This could also indicate a level of emotional disinterest or it may be that the students fail the cognitive dimension in that they do not see the significance of education in their lives at this point. However, the behavioral dimension is certainly addressed in this item because the students were not participating in class. Therefore, the researcher agrees that the students' low level of engagement contributed to their poor performance.

***Theme 4: Instructors should make their presence known and felt in a course to encourage student participation.*** This may appear contrary to the shift to the learning paradigm and a focus on the learner, but “the learning paradigm requires a constant search for new structures and methods that work better for student learning and success, and expects even these to be redesigned continually and to evolve over time” (Barr & Tagg, 1995). A goal of this initiative was to find new methods to increase student learning and success. The FLC members

offered their perspectives and recommendations as to how this may be accomplished. This particular method seemed to work at this institution. Due to the large number of students who were not completing the SAM Pathways assignments, the researcher decided to inquire as to how to encourage participation in the course. The FLC participants' common theme response in how to motivate students to participate in the course was for the instructor to make their presence known and felt in the course.

Participant 1:

“I also feel that instructors should continually be advising the students of the importance of their work and how it will relate to their future in the field.”

Participant 2:

I can only speak for online as that is my strongest area. Students need to see the teacher in the course. The instructor needs to publish a weekly video in Blackboard to let students know you are there and to explain the assignments.

Participant 5:

“In an online class, you can send weekly reminders on the day that work is due, you can send messages of encouragement when students seem to disappear.”

Participant 7:

From an online perspective, I feel that the instructor needs to be present, “teach/interact” with students, and not “facilitate” as you would in a seated class. Provide interactive assignments where you are providing feedback to students individually. Either provide video lecture through Blackboard

Collaborate or create content that allows students to see and hear the instructor.

Motivation is often seen as a personal attribute in that either one has it intrinsically or they do not (Opdenakker & Minnaert, 2011). However, external factors can also effect one's motivation level (Opdenakker & Minnaert, 2011). Some researchers place the onus on teachers to motivate students through a structured learning environment while others focus on teacher-student interactions (Reyes, Brackett, Rivers, White & Salovey, 2012). Yet others state that there are several elements beyond the teacher and the student in motivating students including the student, the teacher, the content, the method or process and the environment (Williams & Williams, 2011).

The first element in motivating students requires that the student have access to the course and teacher, must have the ability to successfully complete the course, should be interested in the class and realize the significance of education (Williams & Williams, 2011). The second element in motivating students requires that the teacher be well-trained (Williams & Williams, 2011). In fact, the teacher should know the subject matter of the course, should know the course content and goals, should know about teaching and student development, and know how to present the material (van Uden, et al., 2014). In the OST-137 course, each of the teachers have taught the course multiple times, so they know the subject matter and course content and goals. They also know how to present the material. If there is a weakness on the part of the instructors, it could be in knowing about student development and teaching. However, there are only a few

who do not have many years of teaching experience. Through participation in this FLC, they have shown that they are willing to share best practices and learn from others in an effort to improve student learning. In addition, the teacher must create and manage the class and be involved, monitor progress, and create positive relationships with the students (Opdenakker & Minnaert, 2011; Williams & Williams, 2011).

The third element in motivating students requires that the course content be pertinent to the students' needs (Williams & Williams, 2011). The method for delivering the material must be useful and the course matter should be relevant to the students' real life needs (Williams & Williams, 2011). The final element in motivating students requires that the classroom be an environment where students can feel safe (Williams & Williams, 2011). The course is related to the students' education and future job possibilities. The material is correlated to the students' major and future job opportunities. The classrooms are safe environments. Thus, the instructors of the OST-137 course have included the elements for motivation within the course.

***Theme 5: Provide lecture materials in various forms and various types of assessment to encourage student participation.*** In response to question 5, the FLC members felt that the best way to vary teaching methods to reach more students and encourage more student participation and improve learning would be to provide the lecture materials in various forms and provide various types of assessment.

Participant 2:

I think having different types of assessments helps. I try to have multiple choice, matching and true/false alternating among assignments. In SAM, I try to use projects, exams, and training because they give students different ways to keep their grades up and show that they know.

Participant 5:

My course is an online course. In my course, I try to give the students PowerPoints to read; I give them quick notes; I give them videos to watch of how to complete the work. I am not sure what else we can give them to help them improve.

The FLC members agreed that providing the course content through various mediums and providing multiple assessment types may help promote student engagement and performance. As previously stated, the research does say that how the teacher delivers the material is very important to motivating students (Williams & Williams, 2011). The focus course did include various delivery media for content, such as lecture notes or PowerPoint presentations that could be read, and videos that could be watched and heard. There were various types of assessment as well.

***Theme 6: Instructor presence in classroom is best teaching method to encourage participation.*** In response to question 6, the FLC members identified instructor presence in the classroom or course as the best teaching method to get students to complete assignments. Most seated classes at the college contain an online component where assignments are given through skills assessment managers

or through Blackboard. Often students experience technology issues outside of class and the instructor needs to make themselves available virtually any time of the day or night to assist students with resetting tests or assisting with login issues. The research also agrees that the student-teacher relationship is the most important ingredient in motivating or engaging students (van Uden, et al., 2014).

Participant 1:

Since many of my classes are online, I feel that most of my students are already regimented. I try to reinforce and publicize deadlines as much as possible, since I know that life happens and it is easy to overlook a deadline when you are not attending a physical class.

Participant 2:

“This semester, being all online, I have used weekly videos to make sure that my students see my face and hear my voice. I remind them weekly of their assignments.

Participant 6:

“For my online class, I send reminders about upcoming assignments or due dates. I offer my assistance for tutoring/assistance as needed. I also offer discussion boards in order to get the students to talk.”

Participant 7:

I provide either live or recorded lectures in my online classes. In the lectures, outcomes are discussed and examples are provided of why and how assignments are to be completed. I try to keep the lectures to 15-30 minutes and students are able to review them multiple times. I encourage

students to ask questions and I respond within 24 hours, usually sooner as email comes to my phone. I encourage students to contact me if assignments are not clear and/or if they need assistance. If I cannot reply immediately, I at least let the student know that I am aware of their concern and when I will be able to respond. I feel that my being available to students has helped them to stay actively involved in my classes.

In looking at the data, 16 students dropped between the Excel and Access units. Access was the third unit on which the students completed the SAM Path assignments. Only one student failed to complete the pretest. We began this unit with a total of 28 fewer students participating than in the first unit, and less than 25% of the remaining students completed the post-test. The FLC members discussed their thoughts on the lack of student participation in the Excel and Access units. Participant 5 stated:

I think the students guessed on the pretest items, and the ones that they guessed correctly on were not included in the training assignment and the students received no remedial training on those tasks. They probably could not or did not guess the same on the post-test which could be the reason for not taking both tests or doing well.

Other thoughts included that maybe the students weren't completing the assignments because of the SAM Pathway assignment format. Another thought was that the pretest was too long and took more time than the students wanted to devote to it. Yet another suggestion was that the SAM Pathways assignments should have been required on each unit (A-D) of each software (Word, Excel, Access and PowerPoint) so that the assignments would be shorter. Participant 5 stated:



The course has over 20 assignments per unit already. I think adding 12 extra assignments per unit would have overwhelmed the students to the point that they would not complete the assignments at all or possibly would result in mass student withdrawal.

The large number of student withdrawals was discussed also. The OST-137 course does consistently have a high withdrawal rate, but this semester seemed to have an excessively high rate. The researcher advised the FLC that possible reasons for non-participation in the course by students had been discussed. She stated that various teaching methods had been used, and they had experimented with other teaching methods. The researcher said that, maybe this could be prevented in future semesters if they could understand why it was happening. Participant 3 stated: "the students' level of preparedness for the course may contribute to whether or not they participate. Other factors suggested included feelings of frustration because students were not participating. Another possible reason suggested was that the course may not have the right amount of content or the right type of content for a first-semester course with no prerequisites." Participant 5 stated: "students are distracted from homework due to life commitments such as work/family or other obligations." The researcher created and sent a short survey based on the topics discussed at the meeting, which follows.

1. Please describe how you feel about students' level of preparation for OST-137? Please use examples.

2. Please describe if/whether you feel frustrated in regards to students not completing assignments and not passing the course – i.e., your level of frustration in this regard?
3. Please describe your feelings as to whether OST-137 (or other courses at the college) have the right amount of content/types of content for the students in regard to their level of preparedness for a course with no prerequisites? In what ways do you feel they are ill-prepared or to what items do you contribute their lack of preparedness?
4. In what ways do you feel students are distracted from completing homework assignments? In what ways do you contribute their lack of preparedness to?
5. How do you feel that instructors should spend more time in self-directed learning- i.e., research on new instructional methods, research on new classroom methods such as games, research on the Scholarship of Teaching and Learning, investing in Faculty Learning Communities as a tool at community colleges to improve instruction and learning, etc. Please note reasons for your choice.

***Theme 7: Students had a mixed level of preparation for a first-semester course.***

In regard to the level of student preparedness for a first-semester course with no prerequisite requirements, the FLC members felt that there was a mixed level of preparation. They felt that some students were prepared while others were not. Some FLC members cited reasons for the varied levels of preparedness. Participant 3 stated:

In these classes, students are not prepared for the technology. Even young students—whom we tend to think of as technology natives—have often

not used technology except for entertainment and social networking.

Microsoft Word, Excel, Access, and PowerPoint are as mysterious to them as they are to a 50-year-old student.

Participant 1:

I feel the level of preparation is mixed in regards to students. Many students have used similar software application packages in a recent timeframe and understand the expectations. Other students have not used similar software packages in a recent timeframe and find it difficult to adapt.

Participant 3:

A large number of our students—whether entering college later in life or fresh from high school—are not prepared for any of these classes. Several themes emerge as I talk to these students...many of these students are new to higher education...they have totally underestimated how much time they will need to do the work...they come without knowing what resources they will need...they are not prepared for the technology. In all of these classes, students need to hit the ground running because of the pace. Any glitch causes them to fall behind, and then they get discouraged.

Participant 5:

This class is one with so many different student aspects and abilities. Some students come prepared and ready for the class with skills acquired previously. Some students come prepared with no prior skills. Some

students fly by the seat of their pants. There are all different levels and it is very difficult to teach them all at their level. We strive to ensure that all students are prepared and ready for the next class by teaching the required material.

***Theme 8: Instructors feel frustration when students do not participate.***

In response to question 2, most of the FLC members felt frustration but maybe not for the same reasons. Some felt frustrated because they felt that they were doing their best and giving their all to help the students succeed and the students were not putting forth their best effort. Others felt frustrated in watching students fail when they felt the student was able to succeed. The researcher as facilitator navigated these frustrations through encouragement and support.

**Participant 1:**

I go to great lengths to keep students apprised of due dates, etc., I do get somewhat frustrated when students do not even attempt to complete assignments with no explanation. Some students simply do not care about completing the work, even though I make every attempt to reach out to them.

**Participant 2:**

“I feel very frustrated when students choose not to complete work that is straightforward and offers immediate feedback for improvement.”

Participant 3:

“I do find it very frustrating to watch students flounder. It’s more frustrating because they can get help; most just wait until too late for that help to be effective.”

Participant 4:

“Yes this frustrates me but I choose to focus on the students doing their work.”

Participant 5:

“I try to encourage all students to be successful. I get very frustrated when I know they have the ability but are choosing not to do their best.”

Participant 7:

“Always frustrated when students do not complete assignments. Feel they are wasting my time.”

***Theme 9: Course was sufficient to ensure student success regardless of prior experience.*** On question 3, the FLC members were divided. Participants 1, 2 and 6 felt that SAM and the course was sufficient to prepare the students regardless of prior experience. Participants 5 and 8 felt that the problem was that students were not familiar with technology.

Participant 1:

“If these students are going to be successful in this field, they must be able to perform well in this course at this stage of the curriculum sequence.”

Participant 2:

“When using SAM, it should not matter what level they come in at, because SAM has the materials to help them at any level. They can bypass items that they know and review or practice what they don’t know.”

Participant 5:

“Students that come to us from a work environment with 20+ years’ experience with no computer skills. These students are also our students that have not been in school in 20+ years.”

Participant 6:

“I believe OST-137 has enough content to prepare the students, no prerequisites needed.”

Participant 8:

“Many students are new to using a computer. Many students have difficulty learning the software and SAM at the same time. Not having Blackboard experience is also a stumbling block.”

***Theme 10: Students are distracted by external obligations.*** In question 4, the common theme among the FLC members was that outside obligations distracted students from completing homework assignments. Community college students are often characterized as having many obligations.

Participant 2:

The lack of preparedness is in how much effort they need to expend to become competent. I think they can’t see themselves completing all the

work in the time given with all of their outside responsibilities; family, jobs, friends, social time.

Participant 3:

Most of our students already have a lot going on in their lives. Most work at least part-time. A great many are married. Many have at least one child. Some students work, are married, and they have children. Some look after family members with all kinds of issues.

Participant 4:

“We all have many life distractions. As an instructor we teach what we have.”

Participant 5:

They have many tasks on their plates at the same time. Many of our students are parents, they have a full load of classes, [and] some are working a full-time job as well. This contributes to their lack of preparedness. They are stretched so thin with so many outside obligations.

Participant 6:

Based on student feedback, many face obstacles that are not school related that affect their level of completion. For example, several students are working full-time jobs and are single parents. Many times they do as many assignments as they can, given their circumstances.

Participant 7:

“Lack of time management skills and too much ‘social’ activities distract from school.”

Participant 8:

“I have many students who work full time, have a family, and are taking five classes. This can be a recipe for disaster. I don’t feel they are so much distracted, but suffer from a lack of time.”

*Theme 11: Instructors should spend time in self-directed learning.* In response to question 5, most of the FLC members agreed that instructors should spend more time in self-directed learning whether researching new instructional methods or sharing best practices with other instructors. Some noted, however, that time constraints may prevent such activity at the community college level.

Participant 1:

Most instructors at the community college level are subject matter experts and have had no formal training in teaching methodologies. These instructors have adapted to the learning styles of adults through experience. I feel that most of these instructors would welcome assistance with how to better reach their students and the investment in Faculty Learning Communities at community college to improve instruction and learning would be an excellent start.

Participant 2:

Instructors should always seek to improve the learning experience. I like to do my own research through journal articles and then try suggestions in



my class. I also like sharing ideas among colleagues. Unfortunately, at a community college level, we aren't allowed time just to learn for ourselves.

Participant 3:

"I think research on classroom methods that help students to work anywhere anyhow would be good."

Participant 4:

I think it varies. An instructor as a student will excel if they follow their passion. The combination/mix is the key. If each instructor follows their passion and then shares with other instructors with different passions, we all learn from one another. It takes all different specialties to make the ship run. Working together is the key.

Participant 5:

"It is very difficult to devote time for these items because there is so much that we have to do on a day to day basis."

Participant 6:

Personally, I would prefer working with other faculty members in a learning community. This face-to-face interaction provides the opportunity to share best practices and learn new methods. Also, this type of interaction forces the group to schedule the time to meet and collaborate. Self-directed research is something that sounds great, but in my world rarely happens given the level of responsibility and activities that have to be completed in a very time-sensitive nature. Therefore, I

would rather see more faculty learning communities being utilized at our community colleges.

Participant 8:

“The best way to research is to discuss the issues with coworkers. What has worked for them? In what ways have they succeeded and/or failed.”

*Summary of common themes.* The participants identified the following themes in regard to the students’ lack of participation:

1. The FLC participants believed that class size had little effect on student learning.
2. The FLC participants believed that the class delivery method had little effect on student learning.
3. The FLC participants felt that the students did not perform well on the SAM Pathways assignments because of lack of commitment, engagement or motivation.
4. The FLC participants’ common theme response in how to motivate students to participate in the course was for the instructor to make their presence known and felt in the course.
5. The FLC members felt that the best way to vary teaching methods to reach more students and encourage more student participation and improve learning would be to provide the lecture materials in various forms and provide various types of assessment.

6. The FLC members identified instructor presence in the classroom or course as the best teaching method to get students to complete assignments.
7. In regard to the level of student preparedness for a first-semester course with no prerequisite requirements, the FLC members felt that there was a mixed level of preparation.
8. Most of the FLC members felt frustration but maybe not for the same reasons.
9. The majority of participants felt that SAM and the course was sufficient to prepare the students regardless of prior experience.
10. The FLC members felt that outside obligations distracted students from completing homework assignments.
11. Most of the FLC members agreed that instructors should spend more time in self-directed learning whether researching new instructional methods or sharing best practices with other instructors.

The participants completed the Goals Inventory Interpretation of Results Form (see Appendix H). Although the participants rank-ordered the items differently on an individual basis, they chose the same two goals again using Miami of Ohio's method of choosing the highest number with the most number of 5's chosen. So, the researcher developed the following survey to determine how the FLC members felt about the initiative and whether it achieved its goals.

1. How do you feel that the FLC initiative achieved its goal to *Develop increased individual teaching skill and ability* or failed to achieve the goal?

Please explain.

2. How do you feel that the FLC initiative achieved its second goal to *focus on collegueship and learning from others* or failed to achieve its goal?

***Theme 12: The FLC achieved its goal to develop increased individual teaching skill and ability.*** In response to question 1, the FLC members felt that the initiative achieved the goal to *develop increased teaching skill and ability*.

Participant 1:

I believe the FLC initiative achieved its goal to develop increased individual teaching skill and ability. I feel members were given the opportunity to reassess their teaching methodology and pedagogy and gained a renewed sense of ability by being able to have the opportunity to participate in the FLC.

Participant 2:

“The goal was reached. I learned how others used the SAM product to achieve learning outcomes. I was able to see how others engaged students through videos and trainings to improve exam scores.”

Participant 4:

I think the goal was achieved in that each person had take-aways on ways to improve their teaching skills. By taking the time to meet with each other and discuss, we are able to learn from each other. Most of us never have the time to make the effort to share with each other the positives since we all have diverse schedules.

Participant 5:

As we work with a group, we increase the skills that we have. We are gaining ideas from others that we can use currently or in the future. I think as individuals we did increase our teaching skills and abilities by adding to our current knowledge different ways to teach the same material. We gained ideas from each other.

Participant 6:

“Through the FLC, I believe we achieved our goal.”

***Theme 13: The FLC achieved its goal to focus on collegueship and learning from others.*** In response to question 2, the FLC members stated they felt that the FLC initiative achieved its second goal to *focus on collegueship and learning from others*.

Participant 1:

I definitely feel the FLC initiative achieved its goal to focus on collegueship and learning from others. In an environment where time is precious and makes collaboration difficult, the FLC gave members the time necessary to collaborate. Once the process started, benefits were immediately reaped from the members. It is enlightening for members to be able to communicate and collaborate.

Participant 2:

This goal was reached by making me realize that instructors in other departments may have teaching styles or activities that I can use. This initiative made me realize that I have other resources (instructors) on campus that I can reach out to for input on projects, student issues, etc. A general feeling of “we are all in this together” and seeing how much other instructors also care about student success motivated me. Being able to collectively solve instructional problems also kept me from feeling isolated.

Participant 3:

Hearing the perspectives of other instructors is always useful. Often other instructors have found teaching methods that are extremely useful but that I have never tried. I am always looking for quick self-assessment methods that allow students to get immediate feedback on whether they understand something, and other instructors are usually great sources for this kind of information.

Participant 4:

“We increased our individual teaching skills by meeting; we also gained knowledge about each of our colleagues as it applies to their teaching abilities.”

Participant 5:

Anytime you are working with a group of co-workers teaching the same material, it is easy to learn from each other. You are able to discuss different viewpoints, share ideas on what works and what does not work,

gain insights into what has worked for co-workers in the past in teaching material that is difficult, and learn new teaching methods (or at least share different teaching methods). I think when you have a great group of individuals to work with, you gain from their experience and knowledge.

Participant 6:

I feel that the FLC initiative achieved its second goal in that I learned and had a better understanding of how other faculty members were teaching the course we were studying. I gained new ideas and realized areas of improvement through this initiative.

**Problems of the FLC.** As mentioned earlier, the researcher and the FLC participants were a group of novices in regard to FLCs and the SoTL. For most of us, this was not only our first venture into this type of initiative, it was the first time we had heard of these types of initiatives in higher education. Therefore, there were problems with the group and the FLC. There were a few members that did not attend several of the meetings, so their input to the dialog was not included. It is very important to stay in constant contact with the members and provide meeting reminders, minutes of the meetings, and information on topics to be discussed at the next meeting. The researcher also experienced problems in getting the FLC members who attended the meetings to contribute information in meetings. This resulted in less dialog and fewer important contributions. FLC members need to be encouraged to participate, much like students in a classroom. The researcher did audio record some of the meetings to capture dialog, but sometimes there were technical difficulties with the recording equipment.

Sometimes, the recording light was on as if the device were working properly, but after the fact, there were no recordings available. The researcher would suggest bringing two audio recorders to the meeting, or even video recording the meetings using an iPad or other type of tablet along with the audio recorder.

**Tools for sustaining the FLC.** The role of the facilitator is a very important tool for sustaining the FLC. As professional development becomes more commonplace in higher education, more faculty members may find themselves in the role of FLC facilitator. FLC facilitators have certain characteristics and assume different roles in guiding the FLC. First, an FLC facilitator is just that, a facilitator, not a leader per se (Petroni & Ortquist-Ahrens, 2004). FLCs require guidance in team-building and some understanding of group dynamics (Petroni & Ortquist-Ahrens, 2004). The facilitator must promote a sense of community through mutual respect, trust, support and cooperation among FLC members (Petroni & Ortquist-Ahrens, 2004). Faculty are somewhat experienced with group dynamics due to experience with classes and are able to promote a sense of community within the group. The facilitator must be able to motivate change within the group. Petroni and Ortquist-Ahrens (2004) contend that FLC facilitators have three roles that overlap: one connected to outcomes, one overseeing tasks, and one encouraging relationships.

The facilitator must keep the group focused. The facilitator must involve faculty early in the initiative and often (Sandell et al., 2004). In addition, the facilitator should share resources like articles or other information and encourage FLC members to do the same. The researcher provided research information on



FLCs and SoTL and on teaching methodologies, and she encouraged the FLC members to provide information on teaching methodologies. According to Petrone and Ortquist-Ahrens (2004), a researcher/facilitator should provide a non-threatening yet challenging environment to promote members to move outside of their comfort-zone. The researcher held the FLC meetings in a small classroom with a conference-room-like table, an environment in which faculty are comfortable. In addition, she provided a framework to guide the FLCs' work by compiling quantitative data and bringing it to every meeting to promote discussion and dialog. Visiting this data brought out insight by the members.

The researcher coordinated and scheduled the meetings and encouraged humor, enjoyment, and mutual respect and modeled interpersonal communication in listening, clarifying, summarizing and seeking consensus (Petrone & Ortquist-Ahrens, 2004). Key qualities for facilitators include "flexibility, tolerance for ambiguity, mindfulness, creativity in thinking, enthusiasm about learning, respect for human diversity, an abiding interest in the FLC topic, and openness and innovation to new ideas" (Petrone & Ortquist-Ahrens, 2004, pp. 66-67). In addition, good organizational skills, interpersonal skills, ability to engage others in dialog, and ability to motivate others are required, and many faculty already have these qualities and utilize them in the classroom (Petrone & Ortquist-Ahrens, 2004).

Facilitators should be familiar with faculty and their teaching and research interests (Sandell et al., 2004). The researcher was familiar with the members' interests in improving the OST-137 course to increase student learning. FLCs

require unity of purpose (Swan et al., 2002), and the members were unified in this effort as the OST-137 course has presented challenges across the institution in retaining students and has a high failure rate.

Table 7 displays the attrition rates for the college overall, the Business and IT Division, OST courses, and the OST-137 course.

Table 7

Attrition Rates for College and OST-137

	Fall 2013	Spring 2014	Fall 2014	Spring 2015
College	12.4%	14.1%	12.3%	13.1%
Business & IT Division	12.7%	16.0%	15.2%	14.6%
OST Courses	14.0%	18.5%	21.3%	19.2%
OST-137 Focus Course	20.1%	29.9%	28.7%	38.9%

Another tool for success in this initiative was that the faculty members wanted to help the researcher in this initiative. Thus, they participated in the initiative. Most expressed that they acquired new knowledge about their students and about teaching and that they grew personally and professionally from the experience. Participants 3 and 5 shared that they had continued to implement changes in practice including maintaining a constant presence in the course and utilizing various forms of assessment and various lecture materials. In addition, participant 5, with the help of the researcher and Participants 3, 6, and 8, has restructured the OST-137 course to reduce the assignments in the course beginning with the Spring 2016 semester in an attempt to increase retention and student learning in the course. Participants 3, 5, 8 and the researcher are also making

changes to their courses through utilizing new and different materials in an attempt to increase and improve learning and retention.

The FLC did not persist after the fall 2014 semester. However, several of the members expressed interest in more FLC ventures at the college. It has recently come to the attention of the researcher that another division in the college participated in a learning community. That division did have formal training in their learning community initiatives and found outside funding through grants or other avenues. One of its members attended and educated the other members upon return. The division was successful in the initiative in that staff and faculty actively participated and won an award for its efforts. The members of the division are currently engaging and training other divisions in their knowledge. Therefore, the researcher is going to propose that the FLC be reinstated for the purposes of improving the OST-137 course's retention rates and learning and that the members attend trainings provided by the other division.

In the first part of this chapter, the birth and decision-making processes of an FLC at a community college were described. In addition, instructional strategies and changes thereto and practice/knowledge acquired through interaction by the FLC members in the FLC initiative were discussed. Although an FLC and SoTL were new concepts to the community college faculty, the researcher was pleased to know that their analyses were mostly in line with the research. The quantitative data are presented in the next part of the chapter.

**Goal 3: Describe Any Changes in Student Learning Outcomes in the Courses in Which Members of the FLC Implement the Planned Instructional Strategies**

**Quantitative data collection.** In this portion of the chapter, the descriptive statistics and results of the quantitative data that consisted of exam scores for the secondary participants are presented. This data responds to research goal 3.

**Data analysis procedures.** Based on research goal 3 for this study, the null hypothesis is:

Null Hypothesis ( $H_0$ ): There is no difference in student learning outcomes after receiving remedial help through a new form of computerized teaching method to improve learning

Alternative Hypothesis ( $H_A$ ): There is a difference in student learning outcomes after receiving remedial help through a new form of computerized teaching method to improve learning

To test the null hypothesis, the researcher utilized data collected from pretest and post-test exam scores collected during the fall semester of 2014. This study did not use random selection as there were volunteers from the students in the focus course sections. The participants were given a pretest assignment at the beginning of a textbook unit using a pretest of the material in the unit. The students were provided individual remedial help based on their weaknesses identified in the pretest assignment through the SAM Path tool in the skills assessment manager, which was implemented to improve learning. At the end of the unit, students were given a post-test. Of the 104 students in the study, 48 did not complete either the pretest or post-test, or neither the pretest nor post-test. To

validate the data, the students who did not complete one or the other of the assignments were removed. Thus, the scores for 52 students were actually analyzed (N=52).

The research goal was examined using descriptive statistics including mean and standard deviation. The data were analyzed using SPSS software and a Paired Samples T-test. The Paired Samples T-test compares the means between two related groups on a continuous, dependent variable for significant difference (Moore, McCabe, & Craig, 2009). So, the purpose of the test is to detect a difference in the means of the two dependent variables, i.e., the before and after test scores. The paired samples t-test is used when there are two measurements or observations for each individual (Moore et al., 2009). This test is appropriate when you have a group of individuals tested at different points. In this case, we are examining pre- and post-exam scores (0-100). The scores between the two tests were analyzed for statistical difference. In this case, the participants were tested before and after a new form of computerized teaching method, referred to as SAM Path, implemented to improve learning. The independent variable was time, which had two levels. Time point #1 was immediately before the start of the unit. Time Point #2 was upon completion of the unit. The difference between the two measurements is the data for analysis (Moore et al., 2009). According to Glass and Hopkins (1996), the paired samples T-test is used between paired observations to determine whether the mean difference is statistically significantly different from zero, i.e. the Null hypothesis is:

Null Hypothesis ( $H_0$ ): The population mean difference between the paired values is equal to zero.

Alternative Hypothesis (HA): The population mean difference between the paired values is not equal to zero.

The study met the requirements for the t-test. According to Moore, McCabe, and Craig (2009), this test is used when there are two observations on individuals under different conditions and the difference between the two measurements for each pair is analyzed. The assumptions for using the paired samples t-test are that there are matched pairs of observations and each participant provides two measurements, the differences are fairly normally distributed and there is a correlation between the variables (Glass & Hopkins, 1996). According to Glass and Hopkins (1996), “the test is robust with respect to assumptions of homogeneity of variance” (p. 297). The t-test formula follows (Glass & Hopkins, 1996):

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s_{\bar{X}_1 - \bar{X}_2}} = \frac{\bar{X}_d}{s_{\bar{X}_d}}$$

In this formula  $\bar{X}_d$  is the mean difference of  $\bar{X}_1 - \bar{X}_2$ , with  $\bar{X}_1$  being the mean of the post-test scores and  $\bar{X}_2$  being the mean of the pre-test scores.  $s_{\bar{X}_d}$  is the standard error of the mean difference of  $s_{\bar{X}_1 - \bar{X}_2}$ . The denominator of the t-test formula is found by using the following equation (Glass & Hopkins, 1996):

$$s_{\bar{X}_1 - \bar{X}_2} = \sqrt{\frac{s^2_{\bar{X}_1} + s^2_{\bar{X}_2} - 2rs_{\bar{X}_1}\bar{X}_2}{2}}$$

where  $S^2_{\bar{X}_1} = \frac{S_1^2}{n}$  and  $S^2_{\bar{X}_2} = \frac{S_2^2}{n}$  and  $v = n - 1$  degrees of freedom.

The researcher calculated a point estimate and confidence interval of the mean difference between the two related values and a statistical significance of the difference.

The confidence interval equation follows (Glass & Hopkins, 1996):

$$(1 - \alpha)CI = (\bar{X}_1 - \bar{X}_2) \pm 1-\alpha/2t_v S_{\bar{X}_1 - \bar{X}_2}.$$

An initial review of the data resulted in negative correlation. An investigation revealed that the scoring system of the SAM Path tool did not allow for one-to-one comparison. Therefore, the data were transformed.

Outliers are value deviations from the overall pattern, or extremely high or low scores (Glass & Hopkins, 1996; Moore et al., 2009). Moore, McCabe and Craig (2009) advise that the t-test is robust against non-normality of the population except in the case of extreme outliers that cause strong skewness, so caution should be exercised in removing outliers. To determine whether the data were approximately normally distributed, the researcher generated a Quantile-Quantile (Q-Q) boxplot of the data. A Q-Q plot is basically a graphical plot for understanding the distribution of the data typically used for detecting outliers in data (Moore et al., 2009). The boxplot graphs the five number summary and helps identify measures of spread, called the interquartile range (Moore et al., 2009). The interquartile range (IQR) is the distance between the first quartile (the 25<sup>th</sup> percentile) and the third quartile (the 75<sup>th</sup> percentile) (Moore et al., 2009). According to Moore, McCabe and Craig (2009), an observation that falls more than 1.5 times the interquartile range above the third quartile or below the first quartile is an outlier. There were no outliers in the data, as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box.

Figure 6 presents the Quantile-Quantile (Q-Q) Boxplot of secondary participants' difference scores in pretest and post-test that shows no outliers in the data.

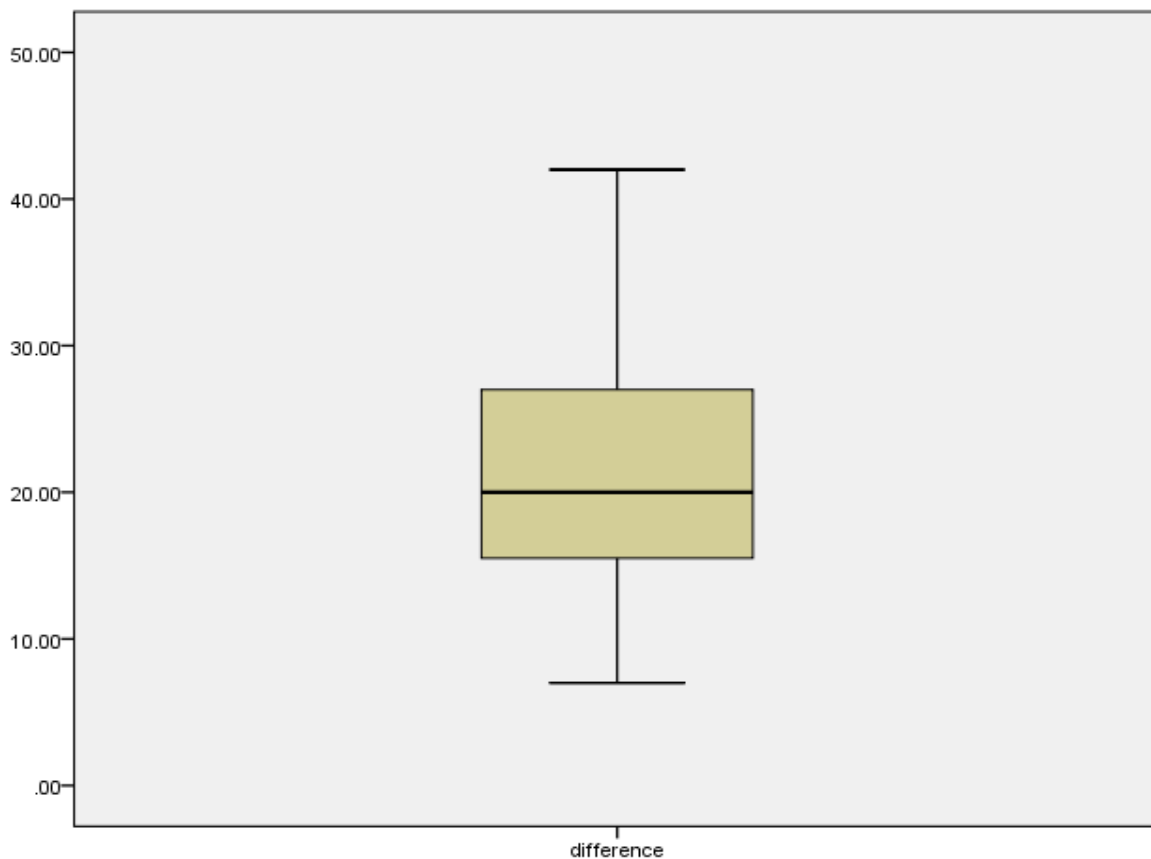


Figure 6. Quantile-Quantile (Q-Q) Boxplot of secondary participants' difference scores in pretest and post-test.

Using the t-test, the researcher generated the descriptive statistics on the two levels of the dependent variable (pretest and post-test). Table 8 displays the descriptive statistics of the Paired Samples T-Test performed on the quantitative data collected through SAM Pathway using SPSS software.



Table 8

## Descriptive Statistics of Paired Samples T-Test

Exam	Mean	N	Std. Deviation	Std. Error Mean
Post-test	89.9	52	6.56	.91015
Pretest	68.7	52	13.41	1.86014

Data are mean  $\pm$  standard deviation, unless otherwise noted. Students performed better on the post-test after receiving the SAM Pathways intervention (a grade of  $89.9 \pm 6.56$ ) as opposed to performance prior to the intervention (a grade of  $68.7 \pm 13.41$ ). The Paired Samples Test table represents the mean difference between the two variables, i.e., Post-test minus pretest, as well as different measures of variability.

Table 9 displays the Paired Samples T-Test performed on the quantitative data collected through SAM Pathway using SPSS software.

Table 9

## Paired Samples Test Table

Paired Differences								
				95% Confidence Interval of the Difference				
Pair 1	Mean	Std. Deviation	Std. Error	Lower	Upper	t	df	Sig.
Posttest – pretest	21.212	9.058	1.256	18.690	23.733	16.886	51	.000

This means that the students scored an average of 21 points higher (95% CI, 18.690 to 23.733),  $t(51) = 16.886$ ,  $p < .0005$  on the post-test than on the pretest following the SAM Pathways intervention.

In summary, 52 of the 104 secondary participants completed both of the pretest and post-test assignments. The researcher performed a Paired Samples t-test using SPSS to determine if there were differences in learning following a computerized teaching method intervention. No outliers were detected as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box. The mean post-test scores ( $89.9 \pm 6.56$ ) were higher than the mean pretest scores ( $68.7 \pm 13.41$ ), a statistically significant increase of 21.2 points (95% CI, 18.690 to 23.733),  $t(51) = 16.886$ ,  $p < .0005$ . Therefore, the null hypothesis was rejected as the population mean difference was not equal to zero and the alternative hypothesis was accepted. So, there was a difference in student learning outcomes after receiving remedial help through the SAM Pathway tool to improve learning.

An Item Analysis was also performed by student, based on each item in the test, as to the number of students who missed the item on the pretest and correctly answered the item on the post-test. The Item Analysis of the correct responses on the Excel post-test performed by student using Excel software is shown in Appendix J.

**Summary.** During the fall 2014 semester when this initiative was conducted, there was an unusually large number of students who withdrew from the focus course. In addition, the number of students who failed to participate in class by completing assignments grew increasingly with each new unit. The FLC attributed the students' lack of participation and the withdrawal rate to lack of intrinsic motivation on the students' part, or to extenuating circumstances beyond the students' control. However, roughly half of the students who began the initiative completed the initiative. All of these students completed the assignments for the initiative and had improved exam scores on

the post-test over the pretest. In addition, as the Item Analysis performed by student shows (see Appendix J), there were only a handful of tasks on the test on which students failed to improve above a 60% rate between items missed on the pretest and the same items missed on the post-test. This could indicate that, at least for this group of students, learning was important to them and they were motivated to learn.

This further demonstrates that SAM Pathway, the instructional technology tool chosen by the FLC to improve student learning, was a helpful learning experience and a step toward sustainability. There were 13 items on the test on which students failed to master the task at a 60% success rate on the post-test. Those competencies are obviously not being addressed in the remediation correctly for the students to get it correct the second time. Analysis of pretest data can help direct instructors in knowing where to focus their attention in teaching the material.

Although the students did not reach the 80% threshold on the skills test, the students that completed the assignments did demonstrate improvement in learning in mastering improvement on the post-test scores over the pretest scores. In addition, although 17% of the enrolled students withdrew from the course during the semester, of the remaining participating students, 58% passed the course for the semester.

## CHAPTER FIVE: DISCUSSION

This chapter will include the study's theoretical framework, findings and provides a synthesis of the results. It also provides a discussion of how these findings may have implications for future research. In addition, the study's strengths and weaknesses are discussed and recommendations made for further research into implementing faculty learning communities (FLCs) in the community college to improve teaching and student learning.

The purpose of this study was to implement the scholarship of teaching and learning (SoTL) in the Office Administration Department of a large metropolitan area community college through the use of a faculty learning community (FLC). The goal of the initiative was to describe the birth and decision-making processes of a topic-based FLC at a community college that was designed to implement improvements in instruction and thereby improve student learning. This study included quantitative data collected from a skills assessment manager, referred to as SAM, which is used by the college for students enrolled in the focus course for the fall semester of 2014. The study also describes the overall FLC experience. Through surveys, it reveals the eight participants' views on teaching methods, student learning, and the initiative. Finally, it provides insight into strategies suggested by the participants to improve teaching methods and student learning in the community college.

### **Theoretical Framework**

A dual theoretical framework was used for this study. Chism's model (2004), as shown in Figure 2 of this study, was used to represent the methods that the FLC members, i.e., the primary participants, used to adopt, incorporate and evaluate

instructional technologies for the initiative. Chism's model (2004) represents an action research plan wherein teaching is improved in stages or cycles. Following Chism's (2004) model, the FLC members reviewed the performance of students previously enrolled in the focus course and identified a need to improve student learning as evidenced by Excel exam scores in this outcomes course for SACS. The FLC members chose and implemented the SAM Pathway tool as the instructional technology to improve student learning. The FLC members also identified and implemented other teaching methods to improve student learning using this method. For instance, they felt that maintaining a physical presence in the course promotes better participation by the students. Some FLC members were not doing this; they implemented this method during the initiative and had success in promoting student participation. They also determined that providing lecture materials in various forms and using various types of assessments encourages student participation.

The researcher also used Kirkpatrick's (1994) Four Level Evaluation Model (shown in Figure 4 and Table 1 of this study) to measure faculty development activities. Through discussion and surveys, the FLC members shared their reaction to the FLC experience which included their views about participation in the FLC experience, teaching methods, and the student learning experience. The FLC members admitted that they gained knowledge from their colleagues through this initiative and that the FLC experience changed their ideas and views about teaching methods and their students. They have since implemented various teaching methods and altered assignments in order to promote student success. Some adopted the method to maintain physical presence in the course. Some have reduced the number of assignments in courses to promote student

success and increase learning. Some have adopted different materials with which to teach the course. All are varying lecture materials and types of assessments.

The students were also evaluated using a version of Kirkpatrick's (1994) model (shown in Table 2 of this study) that was adapted by Praslova (2010) to assessment in higher education. The students were to complete a survey at the end of the initiative about their views on the use of the SAM Pathway tool and its effect on learning. During this particular semester, the college had implemented a new method for students to complete end of course evaluations and there was a huge institutional push for the students to complete them electronically. The institution was sending several emails to students daily from various divisions and departments urging them to complete the survey. The instructors were being told to provide extra credit or other means to urge the students to complete the surveys. The survey created by the researcher for this initiative was also sent via email. However, it was apparently overshadowed by the push for the institutional end of course evaluation as students did not complete it. Several students did use the end of course student evaluations to voice their opinions about and reactions to the SAM Pathway tool. The students who completed the evaluation found that the SAM Pathway tool was related to their course success. There were complaints about technology issues with SAM and about the length of the assignments.

The scores of the post-test exam and the item analysis by student indicated student learning for the students who completed the SAM Pathway assignments. Of the 104 students who participated in the initiative, 49 are still enrolled in school and pursuing degrees. Of those 49, two have graduated with one credential and are currently pursuing another. Through participation in school and required projects completed for other

courses, they are continue to demonstrate the skills learned in the OST-137 course. One has graduated and joined the workforce. The other 54 students in the initiative are no longer enrolled in the college as of spring 2016 semester; they have not graduated or acquired a credential.

### **Synthesis of the Findings**

This study's findings were determined through analysis of data that were collected in relation to the study's overarching objective, which was to improve teaching practices and student learning on both an individual and collective basis through the process of review and reflection as well as the following research goals with primary focus on Goal 1 and secondary focus on goals 2 and 3:

1. Describe the processes and resources faculty within the Office Administration Department of a large metropolitan area community college use to initiate and sustain a faculty learning community.
2. Describe any changes in instructional strategies or practice or knowledge acquired through interaction by the FLC members in the FLC initiative.
3. Describe any changes in student learning outcomes in the courses in which members of the FLC implement the planned instructional strategies.

**Goal 1: Initiating and Sustaining an FLC.** This study describes the birth of the FLC from selection of members, to analyzing the topic chosen for the FLC, to evaluating and implementing teaching methods, to reflecting on whether those methods were successful.

**Goal 2: Changes in practice.** During the FLC initiative, members felt that maintaining a constant presence in the course as an instructor increased student

participation. Strategies for doing so involved daily interaction with the students via prompt grading and feedback, assignment due date reminder announcements, lecture videos, and synchronous meetings through Collaborate or other means.

**Goal 3: Changes in learning outcomes.** Final analysis of the quantitative data results collected through the SAM Pathways tool indicated that there were changes in student learning outcomes for the students who completed the SAM Pathway assignments as the students improved their post-test scores over their pretest scores. In addition, in looking at results of pretest and post-test items for the students who completed the SAM Pathway assignments, most showed that they had grasped the material by succeeding in performing the task correctly on the post-test. The teaching method chosen by the FLC was a helpful learning experience and did improve student learning for the students who completed the SAM Pathway assignments.

### **Implications for Practice**

This study is relevant to the current state of community college higher education. Implementing an FLC within the community college as a professional development tool addresses issues faced by community college faculty such as isolation. Community college faculty generally do not have formal teaching education and are isolated from their colleagues. Professional isolation, also defined as lack of community, collaboration, or cohesion, has been discussed by many in the literature (Layne et al., 2002; Cox, 2004; Kincaid, 2009; Peskin et al., 2009). Professional development through FLCs can also serve as an intellectual stimulus and remedy dated teaching ideas and methods (Lightner & Sipple, 2013). FLCs improve teaching and learning that benefits faculty as well as the



institution. FLCs also incite action research by faculty, which in turn, can lead to more credibility of the faculty and the institution (Hagedorn, 2015).

There has been a great deal of interest recently in attrition rates of community college students. There are many reasons community college students dropout or do not graduate including insufficient academic preparation, external obligations, and need for foundational education (Hagedorn, 2015). Students not succeeding is also cause for concern at the institutional level since community colleges are funded by the number of students enrolled in courses. According to their Website, ATD defines success in various ways including helping individual students achieve their personal goals such as degree attainment, improved skills, or employability (Achieving the Dream, n.d.). The overarching goal is economic growth for individuals, communities, and the nation (Achieving the Dream, n.d.).

The goal of the ATD initiative is to retain students until they graduate, attain some type of credential, or become employable. The student participants of this study exhibited a compelling case for the need for faculty professional development to ensure student success. There was a large number of student withdrawals from the focus course, approximately 28%, coupled with a lack of student participation in the OST-137 course for the fall 2014 semester. Also, approximately 33% of students did not participate in the initiative in completing the required assignments. The FLC participants attributed the non-participation to a lack of motivation, mixed levels of preparation, and distraction by external obligations. The FLC members implemented various teaching methods and the SAM Pathway tool in an effort to promote student learning and ensure student success in the focus course, yet many of the students withdrew from the course over the semester.

The semester began with approximately 172 students enrolled in all sections of the focus course. Of those, there were 104 students who volunteered to participate in the study. Only 52 students completed the initiative.

This suggests that faculty may need professional development on how to interact or communicate with students to help prevent students from withdrawing and to encourage participation in order to ensure student success. Therefore, an FLC initiative could be implemented to include faculty, staff and students. This initiative could bring together staff who are experienced in communicating with students and encouraging them to participate and stay in school, such as counselors. In addition, student participants could be garnered from courses or from student organizations such as Student Government or Student Advisory Boards for participation in an FLC. Students should be able to provide critical insight as to how to communicate and interact with other students. Other institutions have formed FLCs in conjunction with students for input or assistance on institutional issues (Jie, LeSavoy, Lieberman, & Barrett, 2013; Willermet et al., 2014).

ATD and other calls for reform and accountability have moved assessment and student learning to the top of the priority list for community colleges. Since a singular approach can hardly represent student learning at the college level, multiple methods are used to assess student learning. However, a recent survey by the National Institute for Learning Outcomes Assessment (NILOA) revealed that U.S. college and university administrators cited classroom-based assessments as the most valuable method as they “capture student performance in the contexts where teaching and learning occur—course

and program-embedded experiences” (Kuh, Jankowski, Ikenberry, & Kinzie, 2014, p. 12).

In addition, ATD and the calls for reform and accountability in higher education are necessitating quality teaching (Saroyan & Trigwell, 2015). Recently, state legislatures, the President, and educational foundations have placed the nation’s focus on success in higher education, defined as completion rates, (Rhoades, 2012; Kuh, et al., 2014). Many researchers contend that a focus solely on completion rates negatively affects educational quality (Rhoades, 2012, Rutherford & Rabovsky, 2014). They maintain that student learning and outcomes deserves equal attention and investment (Rhoades, 2012, Kuh et al., 2014). The demand for quality education equates to quality teaching. Community college faculty are known for teaching as opposed to research (Twombly & Townsend, 2008; Hagedorn, 2015). So, they are interested in improving their teaching skills so as to improve student learning (Kinchen, 2010).

There is consensus among researchers that professional development is key to facilitating effective teaching (Saroyan & Trigwell, 2015). Bickerstaff and Cormier (2015) state that teachers are continually hearing about teaching and student learning. However, they avow that this does not necessarily lead to improvements in classroom practice in the areas of teaching and learning (Bickerstaff & Cormier, 2015). Since community college faculty are often unable to collaborate with their colleagues about teaching and most do not participate in research, the researcher asserts that professional development is essential to facilitating effective teaching within the community college. It is possible that faculty can be effective teachers without professional development, but

this study shows that teaching skills and abilities can be improved through participation in such activities.

The research suggests that high-quality professional learning requires communities of practice, mentoring, reflective practice, and engaging in the scholarship of teaching and learning (Bickerstaff & Cormier, 2015; Saroyan & Trigwell, 2015). Each of these professional development tools have one thing in common and that is that they are all long-term methods of training. Many researchers agree that, in order to be an effective, deep learning experience, professional development has to extend beyond a lunch-hour training session (Cox, 2004). An hour-long training is not sufficient to effect true learning in faculty. Long-term training allows faculty to immerse themselves in the learning initiative.

The spotlight on student success has placed the focus on teaching and learning (Robinson, 2011). FLCs are a long-term training initiative that prompt change through collaboration and reflection. The FLC participants were interested in improving their personal teaching skills and growing professionally through this initiative. Thus, this study's findings showed that the FLC participants did grow and develop personally through participation in this initiative.

This study implemented an FLC, i.e., a community of practice. The FLC fostered collaboration and possible mentoring. It required reflection on practice. So, Cox's (2004) FLC model embodied the elements that higher education researchers are calling for to effect quality teaching and improve student learning. In addition, Cox's (2004) model has been proven as an effective tool in promoting the scholarship of teaching and learning (SoTL). Cox (n.d.a) noted that FLCs were prevalent in universities but were

rarely used in practice in the community college. Few community colleges have implemented FLCs as professional development tools. In fact, there is little empirical evidence of such. Thus, the researcher contends that this study could be used to prompt other community colleges to implement such practices. Even if the FLC were implemented on an experimental basis, the institution could evaluate its merits and decide whether to adopt FLCs as practice. FLCs are primarily a four-year institution tool, so the hope is that other community colleges will see the research data and implement FLCs at their institutions. Ultimately, as each new community college implemented FLCs to improve teaching and learning, it would prompt more and more to do so and thereby prompt community colleges to adopt FLCs officially as a professional development tool. The educational field is known for being slow to implement change, and a change of this magnitude will not happen overnight. If community colleges adopt FLCs as a professional development tool, the result would be improved teaching and student learning outcomes.

### **Lessons Learned**

The researcher found that the FLC initiative was a very rewarding experience, and the FLC participants agreed. The FLC members expressed that they had grown professionally and improved their teaching skills through this initiative. They also discovered information regarding their students pertinent to improving the student learning experience. The initiative helped the FLC members identify areas of improvement for themselves and helped them understand their students better. By admission, the FLC members felt better prepared to teach and help student learning through the experience.

Most community college instructors are not formally trained in education. Many have experienced the feeling of being given course materials and being directed to teach, but not being directed on how to teach. Many community college faculty also quickly find that due to schedule and time constraints, they are unable to consult with their colleagues for advice and assistance. Most community college faculty genuinely want to be effective instructors and want to make a difference in the lives of their students in helping the students learn and be successful.

The FLC members felt that the focus on collegiality and learning from others in this initiative helped them to develop and increase their individual teaching skill and ability. In doing so, they felt that they were able to identify instructional technologies and other teaching methods to improve student learning and success. Therefore, community college faculty who are interested in improving their teaching skills and abilities, improving their students' learning experience, and ensuring student success should perform research into FLCs. Although FLCs are primarily used in universities, there is literature on FLCs at a few community colleges. Pay particular attention to behavioral changes in the participants as well as to changes in teaching skills and student learning outcomes. The researcher found that FLCs are a professional development tool that can promote ingrained change in its participants.

Due to funding constraints, the participants of this study were unable to attend formal training on FLCs to learn about what they are and how to participate in such an endeavor. If resources permit, the FLC participants should attend formal training on FLCs. It is vital that the facilitator of the FLC be familiar with teaching and learning in higher education and have the ability to build community (Cox, n.d.b). In retrospect, the

researcher supports Cox's (2004) recommendation that the FLC initiative should span the course of a year or more. A full semester should be spent by the FLC facilitator with the FLC members in studying and reviewing FLC requirements and researching examples of successful FLCs in order to ensure a thorough knowledge of how to participate and contribute. At the beginning of the next semester, the topic or focus of the FLC initiative should be decided upon and implemented and the goals and outcomes for the FLC should be determined. These recommendations are consistent with Cox's (2004) criteria for FLCs.

Through this FLC initiative, the FLC members gained first-hand knowledge about their students and their circumstances to aid in promoting student learning and success. The process for achieving this knowledge involved faculty participation and collaboration in suggesting new teaching methods and instructional technologies. It also required that the participants be willing to implement the suggestions in their courses. Consequently, it required reflection and honesty on the part of the FLC members as to what worked and what did not.

It is important to spend time with the data collected and accept what it reveals. The FLC members determined that class size had little effect on student learning. Regardless of the number of students in each section of the focus course, there were high numbers of students who did not participate in completing assignments. Class size has been a continuing debate in the education field, but some contend that smaller classes promote increased participation by the student (Harfitt & Tsui, 2015). The findings showed that roughly half of the student participants in the initiative did not participate by completing the required assignments, and a high number withdrew from the course.

They further discovered that the course delivery method, i.e., seated, hybrid or online, had little effect on whether students participated. There have been similar consistent findings in the research regarding course delivery method in that they find no significant difference in grades or student satisfaction (Haughton & Kelly, 2015). There were a number of students who performed poorly on assignments submitted. The FLC members found that the students had a mixed-level of preparedness for a first-semester course, which is not atypical at the community college. However, they felt that the course and its materials were sufficient to ensure student success regardless of prior experience.

Therefore, they concluded that the poor performance and lack of participation on the students' part was due to lack of commitment, engagement or intrinsic motivation. Or, one could argue that the course was not designed to meet low-motivational students where they are and engage them. They also felt that students were distracted by external obligations such as family and work obligations. Student motivation and engagement and the lack thereof have been addressed many times in the research (Kreber & Cranton, 2000; McKinney, 2004;).

Through collaboration, the FLC members identified several teaching methods that could be effective in promoting participation and increasing learning. These methods include maintaining a physical presence in the course and providing lecture materials and assessments in various forms to encourage student participation. The FLC members determined that maintaining instructor presence in the course through frequent contact in the form of announcements and prompt grading and feedback was the best teaching method to encourage participation. There is literature to confirm that today's students need frequent contact in order to be engaged (Smith & Nichols, 2015). They also



determined that one type of assessment is hardly sufficient to measure student success (Kuh et al., 2014). Therefore, the FLC members agreed that lecture materials should be provided in various formats and varied types of assessment should be used in order to encourage student participation. Cox (2004) also found that faculty learn by reflecting and collaborating with others. Through this initiative, the FLC members experienced personal growth as evidenced by changes they have implemented in teaching methods and strategies since the initiative. Many others in the research have also found that participation in FLCs can help improve teaching through knowledge gained about the practice of teaching (Cox, 2004; Kreber & Kanuka, 2006; Glowacki-Dudka & Brown; 2007). The researcher suggests that future FLCs experiment with various teaching strategies and implement them across varied class sizes and in all course types whether seated, hybrid or online, to evaluate the effect on student learning and participation.

The findings in this study revealed that there were changes in learning for the secondary participants (the students) that completed the SAM Pathway assignments, indicating the instructional technology method for this study implemented through the use of a skills assessment manager could be a useful tool for improving student learning. Others in the research identified instructional technology as an effective tool to place the focus on learning (Kuh et al., 2006). The researcher found that FLC members should spend more time in analyzing data collected from students where learning outcomes are involved. The FLC members should not be afraid to make changes upon discoveries found during data collection. Through this process, sharing information and implementing changes based on collaboration advances teaching and learning (Twombly & Townsend, 2008). The FLC members felt that FLCs are an effective tool for

professional development and should be used more in the community college. Gaston College has demonstrated recently that they are receptive to FLCs on campus, but have indicated that funding for training is not available. In addition to participating in FLCs, the FLC members also felt that faculty should spend time in self-directed learning (like action research) to improve their teaching skills and abilities as well.

### **Strengths and Limitations**

**Strengths.** One of the strengths of this study was that it was a mixed method research design. Creswell (2008) defined a mixed methods research design as “a procedure for collecting, analyzing, and ‘mixing’ both quantitative and qualitative research and methods in a single study to understand a research problem” (p. 552). There is agreement among researchers that the mixing of methods strengthens a study (Creswell, Clark, Gutmann, & Hanson, 2003).

Another strength is that this study fills a gap in the literature regarding implementing FLCs at the community college level. FLCs are primarily prevalent at universities, and there is very little empirical research regarding FLCs in community college settings.

**Limitations.** Limitations to this study include the way in which the FLC initiative was conducted. First, the FLC was conducted for only one semester. Cox (2004) recommends that FLC initiatives continue for one year. Second, Cox (2004) also recommends stipends for FLC participants. The researcher was unable to provide stipends. Another limitation was that neither the researcher nor the participants were able to engage in formal FLC training through retreats or formal seminars on the topic.

Instead, they relied on research methods and resources from Miami of Ohio's Website to garner information on how to conduct an FLC.

### **Recommendations for Future Research**

In light of the Achieving the Dream initiative and in response to cries for educational reform and accountability, it is imperative that further study be conducted regarding implementation of FLCs in community colleges (Kuh et al., 2014). Although the latest educational reforms, such as Achieving the Dream, are calling for more accountability in quality teaching and improved student learning outcomes, faculty development is just beginning in the community college. Faculty are isolated from their peers, due to the nature of being a community college instructor. Additionally, most community college instructors lack formal education on teaching (Cox, 2004; Kincaid, 2009; Hadar & Brody, 2010). Brief trainings that are conducted over a lunch-hour or one-day sessions are not sufficient to foster collaboration and reflection. Thus, they are not sufficient for true faculty development. Faculty need to engage in long-term training and collaboration in order to improve their teaching knowledge, classroom practice, and student learning (Cox, 2004). These demands have been placed on the forefront by the governing bodies. So, it is time to invest in professional development venues that provide real results, such as FLCs.

Research also needs to be conducted in to how to motivate the community college student to succeed. In order to help students, faculty need to understand why they are not participating in class. Therefore, the researcher would suggest student interviews in future research that ask students questions about why they do not participate in attending class or completing assignments. Community college students are a special

kind of student. They are often low-income, minority, displaced workers, parents, employed, etc. Research needs to be conducted to help colleges do more to help these students build the skills necessary to succeed in their college experience. The Achieving the Dream initiative has begun the work of focusing on success. Since faculty are the students' primary contact at the college, the faculty need to be trained in how to address the students' needs.

In addition, more research needs to be conducted in to the use of skills assessment managers in the classroom. The Achieving the Dream initiative calls for more data to be collected. Skills Assessments Managers are excellent tools for collecting data and generating reports. In addition, further research should be conducted in using skills assessments managers as tools for improving student learning. They provide immediate feedback and focus attention on areas where students need help.

### **Conclusion**

Community college faculty are in a unique position. They face a very diverse array of students with varied needs. It is often difficult to determine how to teach to improve learning for the student. Community college faculty are often isolated from their colleagues and unable to consult due to time and schedule constraints. They often do not have formal training in teaching. And, they do not have time to engage in formal research into proven successful teaching strategies. Therefore, FLCs provide an in-depth professional development experience that fosters growth and personal development. It is the researcher's hope that more community colleges will begin using FLCs as a professional development tool.

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## LIST OF APPENDICES

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## APPENDIX A: QUALITIES NECESSARY FOR COMMUNITY IN FLCs

1. *Safety and trust.* In order for participants to connect with one another, they must have a sense of safety and trust. This is especially true when participants reveal weaknesses in their teaching or ignorance of teaching processes or literature.
2. *Openness.* In an atmosphere of openness, participants can feel free to share their thoughts and feelings without fear of retribution.
3. *Respect.* In order to coalesce as a learning community, members need to feel that they are valued and respected as people. It is important for the university to acknowledge their participation by financially supporting community projects and participation at FLC topic-related conferences.
4. *Responsiveness.* Members must respond respectfully to one another, and the facilitator(s) must respond quickly to the participants. The facilitator should welcome the expression of concerns and preferences and, when appropriate, share these with individuals and the entire FLC.
5. *Collaboration.* The importance of collaboration in consultation and group discussion on individual members' projects and on achieving community learning outcomes hinges on group members' ability to work with and respond to one another. In addition to individual projects, joint projects and presentations should be welcomed.
6. *Relevance.* Learning outcomes are enhanced by relating the subject matter of the FLC to the participants' teaching, courses, scholarship, professional interests, and life experiences. All participants should be encouraged to seek out and share teaching and other real-life examples to illustrate these outcomes.

7. *Challenge.* Expectations for the quality of FLC outcomes should be high, engendering a sense of progress, scholarship, value, and accomplishment. Sessions should include, for example, some in which individuals share syllabi and report on their individual projects.
8. *Enjoyment.* Activities must include social opportunities to lighten up and bond and should take place in invigorating environments. For example, a retreat can take place off-campus at a nearby country inn, state park, historic site, or the like.
9. *Esprit de corps.* Sharing individual and community outcomes with colleagues in the academy should generate pride and loyalty. For example, when the community makes a campus presentation, participants strive to provide an excellent session.
10. *Empowerment.* A sense of empowerment is both a crucial element and a desired outcome of participation in an FLC. In the construction of a transformative learning environment, the participants gain a new view of themselves and a new sense of confidence in their abilities. Faculty members leave their year of participation with better courses and a clearer understanding of themselves and their students. Key outcomes include scholarly teaching and contributions to the scholarship of teaching (Cox, 2004, Appendix A).

## APPENDIX B: THE COMPONENTS OF AN FLC

In the list below, no asterisk denotes a component that is the primarily the responsibility of an FLC facilitator. One asterisk denotes a component that is the primary responsibility of the FLC program director, and two asterisks denote components that are the responsibility of both.

### Mission and Purpose

1. \* Goals for the institution (What do you want the FLC program to accomplish?)
2. \*\* Objectives for each FLC (How do you plan to bring about the above goals through specific objectives for each FLC?)

### Curriculum

3. \* What FLCs to offer (cohorts, topics)
4. \*\* What issues and topics to address within each FLC

### Administration

5. \*\* Facilitator qualities and criteria for the FLC program and for each FLC
6. \*\* Selection procedures and criteria for membership in each FLC (striking a balance among disciplines, needs, gender, experience)
7. \*\* Public relations (advertising each FLC, recruiting applicants, and publicizing FLC activities and accomplishments)
8. \*\* Financial support and budgets

### Connections

9. Community (bonding within; support; safety)
10. \*\* Partnerships (bridging to and cosponsoring with other programs and units inside and outside the institution)

11. \*\* Engagement (serving the broader community: student and faculty organizations, K–12, statewide, and so on)

#### Affiliated Participants

12. \*\* Faculty or administrative partners (for example, mentors, consultants)

13. Student associates (for example, undergraduate peer mentors, teaching assistants, consultants)

#### Meetings and Activities

14. Seminars (length, frequency, topics)

15. Retreats (getting away; working and learning together)

16. Conferences (getting away; learning from others)

17. Social amenities and gatherings

#### Scholarly Process

18. The literature (articles, focus book)

19. Focus courses or projects (syllabus; teaching goals inventory; classroom assessment techniques; small group instructional diagnosis; pilot; assessment)

20. Individual teaching projects or other projects

21. \*\* Presentations, both on campus and at conferences (by individual members of the FLC or the entire group)

22. Course or project miniportfolio (prepared by each FLC member for his or her focus course or project)

23. Publication (usually in a year after the FLC)

24. The scholarship of teaching and learning

### Assessment

25. \*\* Of faculty or staff development
26. \* Of FLC program components
27. \*\* Of student learning in the classes or projects of FLC participants

### Enablers and Rewards

28. \*\* Reassigned (release) time for participants and the FLC facilitator
29. \*\* Professional expenses for participants and the FLC facilitator
30. \*\* Recognition by the provost, deans, department chairs, colleagues (Cox, 2004,

Appendix B).

## APPENDIX C: FACULTY LEARNING COMMUNITY APPLICATION

### Application to participate in the Faculty Learning Community on Instructional Technologies to Improve Online Learning

#### What is a Faculty Learning Community?

Faculty learning communities are interdisciplinary groups of faculty and staff who engage in a yearlong collaboration to enhance teaching and learning. The primary goal of an FLC is to explore a specific topic area or theme as it relates to best practices in teaching and learning. This goal is achieved by providing safe, supportive communities wherein members can engage in research, scholarship of teaching and learning, and service to explore new approaches to teaching. Faculty learning communities might also be an effective means to engage community college faculty in scholarly teaching and to connect faculty and staff in transforming community colleges into more learning-centered organizations.

#### Gaston College's QEP SAIL Program

Gaston College's QEP SAIL Program states that a process to ensure online course quality is crucial in providing online students with a quality education and to be true to the College mission and strategic plan. The Online Instruction Committee (OIC) of Gaston College, whose primary purpose is to recommend best practices in online course delivery to improve student learning, developed standards in five areas: 1) the student experience, 2) course materials, 3) assessment, 4) learner engagement and support, and 5) course technology.

Three themes emerged as necessary in conjunction with the SAIL project: 1) Quality standards, 2) technology and training, and 3) student preparedness. The first theme required the creation of a template for the purpose of standardizing course format, making course development easier for faculty and improving the student learning experience. The second theme required appropriate technology, faculty training to deliver quality online learning, and collaboration technology to increase student engagement. The college contended that technology is the foundation of extending the classroom beyond the campus. According to Floyd, "faculty must have access to learning technologies, be competent in their use, and put the new competencies to work in the online classroom" (as cited in Gaston College QEP Document, 2011, p. 27). The third theme required that students be aware of the skills necessary to succeed in the online. The college contends that the final component of successful online programs is well-trained, motivated instructors.

Gaston College's QEP SAIL Program provides the quality standards for online course creation in the form of templates. It also provides for student preparedness through course design and orientations. Oblinger and Hawkins (2006) stated that few faculty possess pedagogy or the technology expertise required to develop and deliver effective

online courses. The program provides technological professional development training. However, the researcher contends that coaching in course development and training in the area of technology does not provide the pedagogical professional development training to provide a deep knowledge base about teaching and best practices.

#### Purpose of this FLC

In order to become more learner-centered, community colleges must connect and engage faculty and professional staff in scholarly teaching. The scholarship of teaching and learning (SoTL) can help institutions of higher education be more successful at promoting student learning by adding to the knowledge base about teaching and learning.

The choice of faculty learning communities as a professional development tool solves the issue of isolation in the community college faculty profession, promotes the scholarship of teaching and learning, and ultimately, supports the transformation of an institution from a teaching organization to a learning organization.

Name:
Degree:
Years of Teaching Experience:
Describe innovative teaching activities in which you have been involved (i.e., efforts to improve teaching, development of curricular materials, etc.):
Indicate two or three of your most pressing needs regarding teaching and learning:
Instructional technologies that will be your focus for this project:
What pedagogical developments do you hope to share with the FLC?
How might the FLC to help you further your development in instructional technologies?

Adapted from Cox, 2001 and Indiana University-Purdue University Indianapolis (IUPUI) retrieved from [http://ctl.iupui.edu/assets/documents/ipad\\_IUPUI\\_application\\_2011-final.pdf](http://ctl.iupui.edu/assets/documents/ipad_IUPUI_application_2011-final.pdf)



Responsibilities of FLC Members:

FLC Members will be required:

- to attend and actively participate in all meetings (Meeting times will be determined by a poll. Every effort will be made to accommodate participants' schedules.)
- to implement instructional technologies into their courses
- to develop and participate in the SoTL as it applies to instructional technologies
- to disseminate their practices and findings to the FLC

## APPENDIX D: FLC PRIMARY PARTICIPANT CONSENT FORM

## Faculty Learning Community Member (Primary Participants) Consent Form

Principal Investigator (PI): John C. Habel, Faculty Advisor, habel@email.wcu.edu

Co-PI: Teresa B. Worthy Phone: 704-860-0510

Email: tbworthy1@catamount.wcu.edu

Project Title: Implementing the Scholarship of Teaching and Learning in the Community College Office Administration Classroom: A Faculty Learning Community Initiative

Purpose of Study:

During the spring, summer and fall semesters of 2014, you are invited to participate with no obligation in a study intended to describe the birth and decision-making processes of a faculty learning community (FLC) at Gaston College. The purpose is to implement the scholarship of teaching and learning through the faculty learning community to implement changes in instruction in order to strengthen students' learning. You will be asked to identify an instructional technology to implement within a focus course, OST-137 Office Software Applications. In addition, you will be asked to complete a goals inventory, keep a journal, and participate in discussions within the faculty learning community on the instructional technology implemented. You also will be asked to participate in FLC group and individual interviews that will be audio recorded in order to help determine whether teaching is being improved.

Description of Participation:

If you choose to participate in this research, I will give you a goals inventory, adopted from Miami of Ohio University, to complete at the beginning of the FLC initiative to help set goals for the FLC and at the end of the initiative to determine if goals were achieved. The inventory will take about 15 minutes to complete and will ask you questions about your teaching and learning goals.

In addition, as an FLC participant, you will be asked to reflect and keep a journal on the instructional technologies implemented and discuss your findings with the other FLC members. I will take notes during these FLC discussions and audio record these interviews so that I may transcribe your words in order to capture everything you say. Finally, I will conduct individual interviews with you and the other FLC participants on one or two occasions during the spring semester in order to obtain participant perceptions on whether the instructional technologies implemented improve learning and/or whether the teaching process is being improved.

The goals inventory will be completed at the initial meeting in order to assist the FLC in planning and implementing goals for the initiative. The individual interviews will be conducted during the FLC meetings.

Confidentiality:

To protect your confidentiality, your real name will not be used for any purpose in the research findings. All data will be stored in a locked cabinet, accessible only by me, the Principal Investigator. When the report of this study is completed all audio recordings of FLC and individual interviews will be destroyed.

Voluntary Participation:

Your participation is strictly voluntary. If you decide not to participate there will be no penalties or negative consequences. You may choose to withdraw from the study at any time. If you choose to withdraw, all data concerning you will be destroyed.

Do you have any questions? (Circle one) NO YES

If you circled YES, please contact the Co-PI, Teresa Worthy, at the above phone number or by email at <mailto:tbworthy1@catamount.wcu.edu> before signing this form. If you have questions or concerns regarding your rights as a research participant, you may also contact Dr. Thomas Ford, the chair of the Western Carolina University Institutional Review Board at 828-227-7212. You also may contact Dr. John Habel of the Department of Psychology, who is supervising this study at 828-227-3367 or <mailto:habel@email.wcu.edu>. Please do not sign this form until these questions have been answered to your satisfaction.

YOU ARE MAKING A DECISION WHETHER OR NOT TO ALLOW THE PRINCIPAL INVESTIGATOR TO USE THE WORDS FROM YOUR QUESTIONNAIRES, SURVEYS, AND PRESENTATIONS FOR RESEARCH AND PRESENTATION PURPOSES ONLY. YOUR SIGNATURE BELOW ALSO INDICATES THAT YOU ARE OVER THE AGE OF 18.

I AGREE DO NOT AGREE (Circle one) to participate in this research study.

Participant's name (please print) \_\_\_\_\_ Date: \_\_\_\_\_

Participant's Signature: \_\_\_\_\_

## APPENDIX E: INFORMED CONSENT FORM FOR STUDENT PARTICIPANTS

## Informed Consent Form For Student (Secondary) Participants

## Project Title:

Implementing the Scholarship of Teaching and Learning in the Community College Office Administration Classroom: A Faculty Learning Community Initiative

What is the purpose of this research?

The purpose of this research is to improve the practice of teaching and improve student learning through the use of the scholarship of teaching and learning in a faculty learning community (FLC) initiative.

What will be expected of me?

One thing that will be expected of you as a participant, other than enrollment in OST-137, Office Software Applications, is that you will agree to allow us to collect and review your grades during and over the fall 2014 semester to determine if there are changes in your learning. The members of the FLC initiative will use one to three specific assignments that will be linked to the instructional technology(ies) selected for the FLC initiative and your grades will be collected and reviewed to determine if there are changes in your learning. These specific assignments will be focused on the Microsoft Office Software Applications of Word, Excel, Access and PowerPoint. The assignments will involve the creation and/or modification of Word documents, Excel spreadsheets, Access databases, and PowerPoint presentations. The assignments will include performance-based lab projects and/or performance-based or objective tests which will require you to demonstrate your ability to perform technological tasks for the Microsoft applications. The grades will be collected and reviewed on a completely anonymous basis. Any potentially identifying information will not be included in any report. Your instructor will not be informed of who has or has not provided informed consent to participate in this study. In addition, with one exception, a brief survey (see below), all information collection procedures and learning activities included this study are built into the course. Therefore, whether or not you provide your informed consent to participate in the study, you will complete the activities included in this study and earn grades in the course for doing so. If you choose not to participate in this study, your course grade and the way you are treated in this course will not be affected. In addition, you will be asked to complete a brief survey at the end of the semester in order to gather student perceptions of whether the instructional technology implemented improved your learning.

How long will the research take?

Your grades on one to three specific assignments will be collected over one semester.

Will my answers to the survey be anonymous?

The answers to the brief survey will be collected on an anonymous basis similar to the instructor evaluation process.

Can I withdraw from the study if I decide to?

Participation in the study is completely voluntary and you may withdraw from the study at any time by notifying the researcher at the phone number below.

Is there any harm that I might experience from taking part in the study?

The only foreseeable risk, which is minimal to you as a participant in this study, is that grades will be collected. As stated above, whether or not you provide your informed consent to participate in the study, you will complete the activities included in this study and earn grades in the course for doing so. If you choose not to participate in this study, your course grade and the way you are treated in this course will not be affected. If you choose to withdraw from this study, any information collected as a result of your participation will not be included in this study, and your course grade and the way you are treated in this course will not be affected. If you should feel negative effects from participation in this study, you can talk with the Co-PI Teresa Worthy at any time. You can also voluntarily withdraw from the study at any time. Ms. Worthy can be reached at 704-860-0510 or [tbworthy1@catamount.wcu.edu](mailto:tbworthy1@catamount.wcu.edu).

How will I benefit from taking part in the research?

The benefit to you is improved learning through improved teaching. Your participation will allow the researcher to collect valuable data. This initiative should allow a better learning experience for you as a student in this college.

Who should I contact if I have questions or concerns about the research?

If you have questions about this study, contact me, **Teresa B. Worthy**, at the Department of Office Administration, Gaston College, Dallas, NC 28034 by phone at 704-860-0510 or by email at [tbworthy1@catamount.wcu.edu](mailto:tbworthy1@catamount.wcu.edu). If you have any questions or concerns about your treatment as a participant in this study, you can reach Dr. Thomas Ford, Chair of the Western Carolina University Institutional Review Board through WCU's Office of Research Administration at 828-227-7172.

The following data is optional and is being collected solely for the purposes of this study. Your personal information will not be shared with anyone.

Age: \_\_\_\_\_ Gender: \_\_\_\_\_ Race: \_\_\_\_\_

Academic Program in which you are Currently Enrolled: \_\_\_\_\_

My signature below indicates that I am at least 18 years old and consent to participate in the study.

Printed Name \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

## APPENDIX F: OST 137 FOCUS COURSE SYLLABUS

## SYLLABUS

## OST-137 – Office Software Applications

Name:  
Office:  
E-mail:  
Phone:

COURSE DESCRIPTION

This course introduces the concepts and functions of software that meets the changing needs of the community. Emphasis is placed on the terminology and use of software through a hands-on approach. Upon completion, students should be able to use software in a business environment.

STUDENT OUTCOMES AND COURSE OBJECTIVES

Upon completion of OST-137, the student will have demonstrated an appropriate level of competency in the following:

- Analyze different types of businesses and apply technology to complete tasks necessary in their operation.
- Utilize and customize features in the operating system for efficient use in a business setting.
- Access the Internet and learn to use the features of Web browsers, including browsing, searching, and utilizing hyperlinks.
- Prepare business documents and correspondence using Word. Formatting, styles, layouts, and functions will be applied in various business situations to create memos, letters, announcements, newsletters, tables, envelopes, and labels.
- Analyze data using Excel. Analyze numerical data, prepare worksheets, develop formulas and functions, and generate charts in various business environments.
- Manage data using Access. Organize data into tables for storage, update and extract information, and generate reports to maintain accurate records in a business setting.
- Prepare presentations using PowerPoint. Present data and information in a colorful and well-organized format using features like transitions and animations, applying appropriate design templates and slide layouts, master slides, printing options, and image editing.

CREDITS, HOURS, PREREQUISITES

Number Semester Hours Credit:	3
Number Class (Lecture) Hours Per Week:	2
Number Laboratory Hours Per Week:	2
Prerequisite(s):	None
Corequisite(s):	None

STUDENT MATERIALS REQUIRED

*Microsoft Office 2013 Illustrated Introductory*, Beskeen, et al., [Cengage](#), 2013 and SAM 2013, Assessment, Training and Projects Mindtap Reader MS2010  
ISBN: 1285726545

Flash Drive 1GB or higher

CLASS FORMAT

Class will consist of lecture, demonstration, discussion, and lab (project) assignments.

COURSE OUTLINE/SCHEDULE

Course schedule will be provided the first week of class. See Blackboard for Schedule of Assignments.

EVALUATION

Course Requirements: Students must complete lab assignments, participation activities, and tests in compliance with class policies; maintain a record of class work; and demonstrate skills on accumulated graded work that collectively constitute a passing average.

If the requirements for any assignment are not clear, it is the student's responsibility to ask for additional information.

Calculation of final grade:

Lab Assignments	35%
Tests	35%
Participation	15%
Final Exam	15%

Orientation Assignments. This is the first assignment to be completed in the course. Check the Schedule of Assignments for the due date. These are participation assignments.



**Lab Assignments.** All lab assignments will be completed using SAM 2013 except the Basic Unit (follow all directions in the Computer Basics Unit that are listed in that button). All assignments have a specified due date that is found on the schedule of assignments. Make sure you adhere to all specified due dates as late work will not be accepted.

**Participation Assignments.** Regular participation is required in this class. There are assignments are the textbook assignments and the training assignments for the units. The assignments will help you understand the work you are to do in the Units. Make sure you complete these assignments prior to the Lab assignments. You will find the Labs are easier if you complete the participation/daily assignment first.

**Tests.** You will have Performance and Skills Test this semester. Both of test will be found in SAM 2013. The Performance Test will test your ability to complete assignments using all the knowledge you gain in the units for Word, Excel, Access and PowerPoint. The Skills Tests will be available in SAM 2013 as well and will allow you to demonstrate your knowledge by completing skills sets for the units covered.

Grades are based on the following grading policy:

A=93-100	D=70-76	W=Withdrawal
B=85-92	F=0-69	I=Incomplete
C=84-77	CE=Credit by Exam	AU=Audit

### FINAL EXAM

This course will have a comprehensive final exam or culminating experience scheduled the last week of the semester. The final exam is a performance exam. You will demonstrate your ability to use the software programs that you learn in this course. Please consult the Gaston College website ([www.gaston.edu](http://www.gaston.edu)) for the final exam schedule for the current semester.

### LATE WORK

A due date is specified for assignment. No late work is accepted. Please refer to the schedule of assignments in the course information section of blackboard for due dates of assignments. **Absence is not an excuse for missing a due date.** Please do not ask for an extension on due dates.

### MAKE-UP POLICY

NO MAKE-UP tests will be permitted.

### College Participation Requirements:

The instructional work of the college is designed for class participation and attendance. The responsibility for class participation and attendance is placed specifically on the individual student. Official college requirements are based on a 90% participation rate. Therefore, if a student has failed to participate in 10% or more of the scheduled class hours or learning activities, a student may be withdrawn by the instructor or assigned a grade of “F” up until the published withdrawal date for violation of the 90% participation rule. For students violating participation requirements after the published withdrawal date, a grade of “F” may be assigned by the instructor. Once an instructor has posted a grade, the student no longer has an option to withdraw from that class. Please see the Student Handbook for information regarding absences for religious observances.

This policy does not remove the right of faculty to reward or penalize students for participation and attendance issues at any point during the semester. Please review course-specific instructions related to attendance to ensure compliance with stated requirements for this class. Faculty may enforce an alternate policy where required by divisional or departmental practices, accreditation requirements and other similar issues.

### ATTENDANCE POLICY

The instructional work of the college is designed for class attendance. The responsibility for class attendance is placed specifically on the individual student.

The college reserves the right to sever its relationship with any student who fails to maintain the respective attendance requirements. Such a student can be dismissed from a given class upon recommendation of the instructor.

The student is responsible for all material covered in each course for which he is registered. In no instance does absence from class relieve the student from the responsibility for the performance of any part of the course work. The student is further responsible for initiating any request to make up work because of class absence. The decision to assist the student with makeup work, including tests, in every case rests with the instructor. The instructor may require verification of medical or personal circumstances presented by the student to influence this decision. Course work not made up, may cost a student grade advantage in the final evaluation since the instructor is not required to offer the student an opportunity to make up course work.

**Attendance and Participation:** Regular and punctual class attendance is a required student obligation, and absence from class is not recognized as a student privilege. Therefore, students are expected to be present and on time for all class meetings and will be held accountable for all material presented in class. If a class is missed, it is the responsibility of the student to obtain class lecture notes, copies of handouts or other materials distributed during their absence. Copies of lecture notes, class discussion topics or specific document instructions must be secured from another student in the class. Copies of handouts may be secured from me. It is my responsibility to be in class and to facilitate

you as you learn the material, just as it is your responsibility to be present in order to learn the material.

It is the student's responsibility to keep the instructor informed concerning all aspects of his/her progress during the semester. Please remember that absences always result in missing course content. In spite of the best efforts of both the student and the instructor, this usually results in lower grades.

If a student is absent more than twice the number of times the class/lab meets per week, the student will be dropped from the course. If the absences occur after the official withdrawal date (provided by the Registrar's office) the student will fail the class. Please see the OST Attendance Policy for further clarification.

#### OFFICE SYSTEMS TECHNOLOGY ATTENDANCE POLICY

1. You should be absent no more than twice the number of times the class meets each week.
2. If you are absent more than the above noted times, you may be dropped from the class.
3. You must keep track of your own attendance. If you are attending under an aid program, you must fill in your own attendance form before the instructor is asked to sign it.
4. Find a buddy in case you have to be absent.

#### UNATTENDED CHILDREN

Students are not allowed to bring children to class; only registered adults are authorized to be in a classroom while class is in progress. Children are not allowed in the computer labs.

#### FOOD/DRINKS

Food/Drinks in Class/Labs: Refreshments in the lecture portions of class are permitted unless computers are being used. Therefore, on lab days make sure you finish your snack/refreshment BEFORE entering the labs. Or if you class is scheduled in a computer lab drinks ARE NOT permitted.

#### WITHDRAWAL PROCEDURES FOR CURRICULUM CLASSES

It is the student's responsibility to withdraw from class. Withdrawal from a course for academic reasons must be initiated by the student prior to the eleventh week of the semester. The student must complete an official withdrawal form available in the Office of the Registrar.

After the eleventh week of curriculum classes, withdrawals are granted for two reasons – (1) Medical reasons related to accidents or illness or (2) Administrative reasons related to unusual or unavoidable circumstances. After the eleventh week, withdrawal requires the

approval of both the instructor and division dean. Written documentation of justification on business stationery should accompany the withdrawal after the eleventh week.

(Note: A student who stops attending classes for any reason should not expect the instructor to drop him or her. It is the student's responsibility to withdraw officially by completing a withdrawal form in the Office of the Registrar by the deadline date published in the class schedule. Failure to do so could result in an F grade.)

### ADA - STUDENTS WITH SPECIAL NEEDS

In order to receive services under the Americans with Disabilities Act, the student is responsible for supplying documentation to the Counseling Center well in advance of class registration. Students should also schedule a meeting with a counselor in the Counseling and Career Development Center to discuss individual needs regarding reasonable accommodations. See the Gaston College Academic Catalog for further information.

### ELECTRONIC COMMUNICATION DEVICES

To minimize classroom disruptions and protect the integrity of test-taking situations, electronic communication devices such as telephones and pagers are generally not permitted in instructional areas at Gaston College. See the Gaston College Student Handbook for emergency personnel exceptions.

Before entering the classroom, cell phones/pagers should be turned off. If an emergency call is expected, please step outside the classroom to speak. No calls can be accepted during a test.

### ACADEMIC DISHONESTY

Students enrolled in Internet (online) courses are subject to the same policies, procedures, and standards as students enrolled in traditional courses in regard to academic responsibilities and code of conduct.

In this section defining student violations of academic integrity: (a) "Intent" refers only to the intent to commit the dishonest action; other aspects of the student's motive (e. g., a desire to avoid academic suspension, or to help a friend) are not material in determining whether an act of dishonesty has been performed; and (b) "Authorization" is legitimate only if given by the faculty member responsible for the evaluation of the students work.

A. CHEATING - Intentional use or attempted use of unauthorized materials, information, notes, study aids, devices or other assistance in any academic exercise. This definition includes unauthorized communication of information during an academic exercise.

- B. FABRICATION AND FALSIFICATION - Intentional alteration or invention of any information or citation in an academic exercise. Falsification refers to the alteration of information; fabrication refers to the invention or counterfeiting of information.
- C. MULTIPLE SUBMISSION - The submission of substantial portions of the same academic work (including oral reports) for credit more than once without authorization.
- D. PLAGIARISM - Intentional presentation of the work of another as one's own without proper acknowledgment of the source. The sole exception to the requirement of acknowledging sources is when the ideas or information are common knowledge.
- E. COMPLICITY IN ACADEMIC DISHONESTY - Intentionally helping or attempting to help another to commit an act of academic dishonesty.

See [Student Handbook](#) for description of typical examples.

#### CAMPUS SAFETY ANNOUNCEMENT

Gaston College is very concerned about protecting our students, employees, and visitors at all campuses. You can help the College to protect everyone by reporting any suspicious activities or threats to your instructor, Campus Police, or any other college official. The College takes steps to protect anyone who has reason to believe that he/she is in danger. Also, remember to keep your belongings in secure places at all times. The College offers free and confidential counseling services to students with personal concerns. Students may be referred to local community resources when warranted.

"Together, we can help our campus to be a safer place."

#### Important Contact Information

##### Campus Police/Security

Dallas Campus, Pharr Trade and Industrial Building (PTI), Room 125, 704-922-6480  
Lincoln Campus, Room 119, 704-5225

Counseling Center

Dallas Campus, 2<sup>nd</sup> Floor Myers Center, 704-922-6220  
Lincoln Campus, Room 201, 704-748-5209

Kimbrell Campus

Dean of the East Campus, ECC 207, 704-825-6272

Faculty Learning Community Initiative

This spring, Gaston College will be engaging in a research study to improve the practice of teaching and improve student learning through the use of the scholarship of teaching and learning in a faculty learning community initiative. The students of OST-137 Office Software Applications are being invited to participate in this exciting initiative.

The only thing that will be expected of you as a participant, other than enrollment in this course is that you will agree to allow us to evaluate your grades during and over the semester to determine if there are changes in student learning. The grades will be collected this semester and reviewed on a completely anonymous basis. The members of the FLC initiative will identify 1-3 specific assignments that will be linked to the instructional technology(ies) selected for the FLC initiative and students' grades will be evaluated to determine if there are changes in student learning. You may also be asked to complete a brief survey upon completion of the initiative to gather student perceptions of whether the instructional technology implemented improved student learning. The answers to your surveys will be collected on a voluntary basis through a survey instrument which will be provided by the researcher. The survey will be completed on an anonymous basis similar to the instructor evaluation process.

The researcher will attend the class and will hand out Informed Consent forms to all students. The student will sign the form if they are willing to participate in the initiative; they will not sign the form if they are unwilling to participate. All forms will be collected before the researcher departs the classroom. Participation in the study is completely voluntary and you may withdraw from the study at any time by notifying the researcher.

There are no foreseeable risks to you for participating in this study. The benefit to you is improved learning through improved teaching. Your participation will allow the researcher to collect valuable data. This initiative should allow a better learning experience for you as a student in this college.

## APPENDIX G: FLC GOALS INVENTORY FORM

## Faculty Learning Community Goals Inventory

Adapted from Appendix A, Developing Facilitators for Faculty Learning Communities, in *Building Faculty Learning Communities*, (Sandell, Wigley, Kovalchick; 2004, pp. 59-61)

Instructions: Read through each statement and circle the number that best corresponds to the degree of importance in relation to the outcomes you would like to achieve—for yourself and the other participants—through your faculty learning community next year.

For these items:

1	2	3	4	5
Very unimportant	Not important	Neither important nor unimportant	Important	Very Important

Scale	Item	Item #
1 2 3 4 5	Develop a perspective on teaching, learning and other aspects of higher education beyond the perspective of your individual discipline	1
1 2 3 4 5	Heighten appreciation of scholarly teaching and the scholarship of teaching.	2
1 2 3 4 5	Increase reflection on and about teaching	3
1 2 3 4 5	Increase inspiration about teaching and scholarship	4
1 2 3 4 5	Broaden view of teaching as an intellectual pursuit	5
1 2 3 4 5	Learn more about the specific topic around which your learning community will be built	6
1 2 3 4 5	Increase understanding and awareness on campus about the specific topic of your learning community	7
1 2 3 4 5	Develop new course modules about the specific content of your learning community	8
1 2 3 4 5	Increase student achievement in relation to the specific focus of your learning community	9
1 2 3 4 5	Learn more about how your specific topic may influence and enhance teaching and learning	10
1 2 3 4 5	Increase comfort in your role as a member of the faculty	11
1 2 3 4 5	Heighten awareness and understanding of the role of a faculty member at your institution	12
1 2 3 4 5	Develop a community of colleagues who continue as an informal support system after this FLC project ends	13
1 2 3 4 5	Develop a sense of community with colleagues around specific teaching projects that you carry out	14
1 2 3 4 5	Experience revitalization as a faculty member at my institution	15

1 2 3 4 5	Successfully develop new/more learning objectives for your course	16
1 2 3 4 5	Increase your general enthusiasm about teaching and learning	17
1 2 3 4 5	Increase total effectiveness as a faculty member	18
1 2 3 4 5	Increase technical skill as a teacher	19
1 2 3 4 5	Increase comfort with and confidence in your teaching	20
1 2 3 4 5	Increase understanding of and interest in the scholarship of teaching	21
1 2 3 4 5	Heighten awareness of ways to integrate the teaching and research experiences	22
1 2 3 4 5	Develop research and scholarly interests with respect to your discipline	23
1 2 3 4 5	Produce a scholarly article or paper on teaching through your work in the community	24
1 2 3 4 5	Learn more about student achievement through scholarly research on teaching and learning	25

Instructions: Rank-order the following five foci for your learning community in order of importance, where 1=least important and 5=most important (be sure to rank all 5!)

- \_\_\_\_\_ Thinking about teaching beyond the classroom—in its broadest implications
- \_\_\_\_\_ Learning more about a specific pedagogical tool or strategy
- \_\_\_\_\_ Collegueship and learning from others
- \_\_\_\_\_ Developing increased individual teaching skill and ability
- \_\_\_\_\_ Carrying out a teaching project and sharing it with the scholarly community

Once you have completed the inventory, please proceed to the next page to tally and interpret the results.



## APPENDIX H: FLC GOALS INVENTORY: INTERPRETATION OF RESULTS

## Section 6.E

## Faculty Learning Community Goals Inventory: Interpretation of Results

For the first set of twenty-five items, add up the total score for each group of five as indicated below, then count the number of scores of “5” you recorded for each of those groupings of items. (For example, if you circled a “3” for number 1, a “2” for number 2 and “5” on numbers 3-5, your total score would be 20 and the number of “5” scores circled would be 3.)

Items 1-5

Total score: \_\_\_\_\_

Number of 5s: \_\_\_\_\_

Items 6-10

Total score: \_\_\_\_\_

Number of 5s: \_\_\_\_\_

Items 11-15

Total score: \_\_\_\_\_

Number of 5s: \_\_\_\_\_

Items 16-20

Total score: \_\_\_\_\_

Number of 5s: \_\_\_\_\_

Items 21-25

Total score: \_\_\_\_\_

Number of 5s: \_\_\_\_\_

Now compare the 5 groupings of the items above in which you had both the highest score(s) and the most 5s with the final five foci that you rank ordered on the previous page. For example, if your highest score was on item group 1-5, you probably should have ranked “thinking about teaching beyond the classroom” first. The key for the 5 groups of items above is as follows:

- The first group of five items focuses on an intellectual approach to or discussion about teaching as the major goal of the work you undertake with your FLC.
- The second group of five items focuses on gaining specific topical information regarding the focus for your learning community (for example, learning more about technological applications to effect learning outcomes) as the major goal for your FLC.

- The third group of five items focuses on developing a sense of connection to others and to the institution as the major goal of your FLC.
- The fourth group of five items focuses on enhancing general teaching effectiveness as the major goal of your FLC.
- The final group of five items focuses on the scholarship of teaching and teaching projects/research as the major goal of your FLC.

## APPENDIX I: SAMPLE OF DATA BROUGHT TO MEETINGS

Student ID	Pre-test Results	Post-test Results	Improvement
Student 1	70	74	4
Student 2	0	0	0
Student 3	0	0	0
Student 4	29	90	61
Student 5	66	68	2
Student 6	57	92	35
Student 7	57	60	3
Student 8	0	0	0
Student 9	27	81	54
Student 10	70	83	13
Student 11	59	0	-59
Student 12	56	78	22
Student 13	61	13	-48
Student 14	89	0	-89
Student 15	0	0	0
Student 16	49	0	-49
Student 17	76	79	3
Student 18	63	56	-7
Student 19	0	0	0
Student 20	50	90	40
Student 21	71	71	0
Student 22	64	0	-64
Student 23	66	45	-21
Student 24	75	55	-20
Student 25	79	0	-79
Student 26	70	88	18
Student 27	58	43	-15
Student 28	71	88	17
Student 29	5	82	77
Student 30	78	80	2
Student 31	0	0	0
Student 32	92	89	-3
Student 33	64	0	-64
Student 34	70	54	-16
Student 35	69	58	-11
Student 36	72	58	-14
Student 37	4	0	-4
Student 38	0	0	0
Student 39	62	0	-62

APPENDIX J: ITEM ANALYSIS OF CORRECT RESPONSES ON EXCEL POST-  
TEST

Item	Description	Fraction Correct	Percentage
1	Create a Formula Using Max Function	18/31	<b>58.1%</b>
2	Hide Gridlines in a Worksheet	7/7	100.0%
3	Use Absolute Cell References	28/48	<b>58.3%</b>
4	Edit a Cell Comment	18/26	69.2%
5	Change Position of Data Labels	22/23	95.7%
6	Change the Position of Chart Legend	13/13	100.0%
7	Autofill Using Formatting Only	18/34	<b>52.9%</b>
8	Apply Bold Formatting to Text	1/1	100.0%
9	Create Chart in the Current Worksheet	4/4	100.0%
10	Insert a New Worksheet	7/7	100.0%
11	Create & Save Workbook based on template	10/10	100.0%
12	Delete a column	3/3	100.0%
13	Use Quick Analysis tool to Create a formula	28/40	70.0%
14	Manually Position a Chart Legend	27/30	90.0%
15	Position a Chart	17/19	89.5%
16	Name a Range	19/23	82.6%

Item	Description	Fraction Correct	Percentage
17	Find & Replace Text	4/4	100.0%
18	Change Layout of a Chart	15/17	88.2%
19	Hide Columns	6/6	100.0%
20	Insert a Picture	4/5	80.0%
21	Scroll a Worksheet	9/9	100.0%
22	Apply Conditional Formatting to a Range	11/14	78.6%
23	Print a Worksheet	0/0	
24	Use Flash Fill to fill range based on examples	11/52	<b>21.2%</b>
25	Use Relative Cell References	22/29	75.9%
26	Create & Save a Template	7/7	100.0%
27	Add Data Bars to a Range	29/39	74.4%
28	Apply a Theme to a Worksheet	6/6	100.0%
29	Add a Comment to a Cell	16/18	88.9%
30	Add Header & Footer to a Worksheet	20/46	<b>43.5%</b>
31	Format Data Label Number Options	12/14	85.7%
32	Select a Cell	1/1	100.0%
33	Modify Row Height	15/18	83.3%
34	Add Border to Range	5/5	100.0%
35	Use Quick Analysis Tool to add Sparklines	10/11	90.9%
36	Enter formula using keyboard	20/28	71.4%

Item	Description	Fraction Correct	Percentage
37	Modify Chart Axis Options	16/18	88.9%
38	Add an Axis Title to a Chart	22/28	78.6%
39	Format a Range as a Table	7/7	100.0%
40	Preview All Pages in Worksheet Before Printing	8/8	100.0%
41	Delete Cells	5/5	100.0%
42	Edit Cell Content	2/2	100.0%
43	Add WordArt to a Chart	17/43	<b>39.5%</b>
44	Change Font Color of a Cell	1/2	<b>50.0%</b>
45	Edit a Conditional Formatting Rule	21/33	63.6%
46	Insert a Row	10/13	76.9%
47	Specify a Column Width	8/8	100.0%
48	Add Vertical Gridlines to a Chart	12/12	100.0%
49	Increase the Number of Decimal Places	8/8	100.0%
50	Modify Chart Data Labels	20/23	87.0%
51	Select Non-adjacent Cells	12/15	80.0%
52	Use Format Painter	21/35	60.0%
53	Rename a Worksheet	12/13	92.3%
54	Change Font Size of a Chart Element	9/13	69.2%
55	Apply Formatting using Quick Analysis Tool	11/11	100.0%

Item	Description	Fraction Correct	Percentage
56	Insert a Cell	6/6	100.0%
57	Create a 3-D Pie Chart	4/5	80.0%
58	Apply the Percent Number Format	3/3	100.0%
59	Switch Chart Columns & Rows	17/18	94.4%
60	Enter Numbers with Format Symbols	5/10	<b>50.0%</b>
61	Change the 3-D Rotation of a Chart	9/51	<b>17.6%</b>
62	Copy a Worksheet within a Workbook	16/20	80.0%
63	Save a Workbook with a new format	8/9	88.9%
64	Change the Font Size	0/0	
65	Insert a Column	15/22	68.2%
66	Reorder Worksheets	3/3	100.0%
67	Create Defined Names from a Selection	10/52	<b>19.2%</b>
68	Format Worksheet Tabs	16/17	94.1%
69	Insert a SmartArt Graphic	15/16	93.8%
70	Create a Sparkline for a Range	19/21	90.5%
71	Scale a Worksheet for Printing	19/25	76.0%
72	Insert a Header	9/11	81.8%
73	Create a Formula using the MIN Function	20/27	74.1%
74	Resize a Chart	32/37	86.5%
75	Indent Cell Contents	17/20	85.0%

Item	Description	Fraction Correct	Percentage
76	Apply the Accounting Number Format	8/8	100.0%
77	Move a Chart to a Different Worksheet	14/21	66.7%
78	Insert a Page break in a Worksheet	14/16	87.5%
79	Insert a Chart Title	18/21	85.7%
80	Navigate between Worksheets	1/1	100.0%
81	Fill a Range of Cells with a Number Series	25/42	<b>59.5%</b>
82	Preview Page breaks in a Worksheet	7/7	100.0%
83	Create a Formula using the SUM Function	9/11	81.8%
84	Fill a Range of Cells with a Series of Labels	23/28	82.1%
85	Wrap text in a cell	25/39	64.1%
86	Create a Column Chart	6/7	85.7%
87	Apply a Cell Style	3/4	75.0%
88	Delete Rows	1/1	100.0%
89	Create a Conditional Formatting Rule	13/41	<b>31.7%</b>
90	Italicize Text	1/1	100.0%
91	Change the Fill Color of a Cell	1/1	100.0%
92	Explode a 3-D Pie Chart	13/47	27.7%
93	Apply the Date Number Format	11/14	78.6%
94	Copy and paste Cell Contents	5/5	100.0%
95	Undo an Action	0/0	



Item	Description	Fraction Correct	Percentage
96	Apply the Comma Number Format	19/23	82.6%
97	Fill Adjacent Cells with Formulas	15/20	75.0%
98	Autofit Column Contents	13/16	81.3%
99	Check Spelling for a Word	3/4	75.0%
100	Rotate Text in a Cell	9/12	75.0%
101	Center Cell Contents	1/2	50.0%
102	Create a Custom Format Code	15/48	<b>31.3%</b>
103	Insert a Recommended Chart Type	3/3	100.0%
104	Create a Formula using Average Function	16/18	88.9%
105	Replace all Instances of Value in Worksheet	8/10	80.0%
106	Create a New Workbook from Template	9/12	75.0%
107	Merge Cells and Center their Content	6/6	100.0%
108	Move cell contents	15/18	83.3%
109	Change the Font	0/0	
110	Enter a Number in a Cell	1/1	100.0%
111	Change the Chart Type	9/12	75.0%
112	Change the Chart Style	1/1	100.0%
113	Delete a Worksheet	2/2	100.0%
114	Change Worksheet Orientation	2/2	100.0%