FACULTY AND ADMINISTRATOR BELIEFS REGARDING ASSESSMENT OF STUDENT LEARNING OUTCOMES: A COMMUNITY COLLEGE CASE STUDY

By

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To my family, nuclear and extended, biological and embraced, who traveled on this journey with me and gave me the gifts of time and encouragement to realize the dream.
It has been said that it takes a village to raise a child;
it took a similar village to make this dream reality.

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LIST OF ABBREVIATIONS

AA	Associate of Arts degree or program
AAC&U	American Association of Colleges and Universities
AAHEA	American Association for Higher Education Accreditation (formerly American Association for Higher Education, AAHE)
ACE	American Council on Education
AO	Academic Administrator
AS/AAS	Associate of Science/Associate of Applied Science degree or program
ASLO	Assessment of Student Learning Outcomes
ASLOB	Assessment of Student Learning Outcomes Beliefs Survey Instrument
CAPP	Collegiate Assessment of Academic Proficiency Test
CHEA	Council for Higher Education Accreditation
CLA	College Learning Assessment Test
CLAST	Florida's College-Level Academic Skills Test
ETS	Educational Testing Service
IHE	Institution of Higher Education
LEAP	Liberal Education and America's Promise
MAPP	ETS' Measure of Academic Proficiency and Progress
NASU	National Association of State Universities
NCAHE	National Commission on Accountability in Higher Education
NCEE	National Commission on Excellence in Education
NCPPHE	National Center for Public Policy and Higher Education
SACS	Southern Association of Colleges and Schools
SHEEO	State Higher Education Executive Officers

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This study examined higher education faculty and academic administrator (AO) beliefs regarding the value of assessment of student learning outcomes (ASLO) as a means for improving teaching and learning at a Southeastern community college known for its commitment as a learning college and as an exemplar for such efforts. Faculty and AOs at this college responded to an Internet-based survey regarding beliefs in the value of ASLO, the use of ASLO, influential individuals in the ASLO effort, and factors leading to improvement of ASLO at the college studied. Quantitative methods were used to determine statistical differences in beliefs held and qualitative data was used to contextualize and enrich the results found.

Results of this study provided five critical factors that may be of value to campus communities seeking to develop assessment efforts: that faculty and AOs at the institution studied valued ASLO, with no significant differences between faculty and AOs in beliefs held; that the length of time faculty had taught at the institution had a relationship to differences in beliefs held regarding the use of assessment; that there were significant differences in beliefs regarding the contribution of assessment to

teaching and learning between faculty teaching in Associate of Science/Associate of Applied Science (AA/AAS) and Associate of Arts (AA) programs; that the primary drivers of the ASLO effort at this campus were a faculty-led assessment team and the chief assessment officer; and that, overall, additional faculty development was seen as the dominant resource needed to improve ASLO efforts on this campus.

Institutional effectiveness in higher education and its components – assessment, accreditation, and accountability – were constantly evolving concerns for all stakeholders in the U.S. higher education process in the late 20th and early 21st centuries. Understanding faculty and academic administrator beliefs about assessment at the college studied provided insights into effective institutional practices to assess student learning as well as to ways to overcome barriers to making assessment of student learning outcomes part of continuous institutional improvement. These conclusions allow institutions less far along in the assessment process to realize change in their organizational cultures.

CHAPTER 1
INTRODUCTION

For more than half of the 20th century, the United States was renowned for the best-educated workforce on the globe and superior higher education was the principal driver of American economic competitiveness. Yet real and growing declines in rates of educational participation and postsecondary attainment in the U.S. during the late 20th and early 21st centuries pointed to increasing gaps between national needs from post-secondary education and the current and future capacity of the U.S. higher education system to meet those needs (National Center for Public Policy and Higher Education [NCPPHE], 2008; Ewell & Wellman, 2007; Miller, 2008).

Due in part to these declines, critical questions regarding higher education's accountability and assessment of student learning intensified as the general public, parents, and state and Federal policy makers called for a culture of evidence accounting for student learning (Burke, 2004, 2005; Ewell & Wellman, 2007; Immerwahr & Johnson, 2009; Shavelson, 2007; Shulman, 2007; State Higher Education Executive Officers [SHEEO], 2005; Spellings, 2006). Student learning outcomes became central to the purpose of educational organizations, and, according to Volkwein (2003, 2010a, 2010b), evidence of congruence between outcomes and stated mission, goals, and objectives were seen as the key to demonstrated higher education effectiveness. As Terenzini wrote in 2010, assessment – the measurement of the educational impact of an institution on its students – was a fact and was not going away.

Statement of the Problem

The maelstrom of higher education scrutiny and public lack of confidence reached critical mass in 2006, when then U.S. Department of Education Secretary Margaret

Spellings released *A Test of Leadership: Charting the Future of U.S. Higher Education*, the report of her Commission on the Future of Higher Education. The Spellings Commission called for a “robust culture of accountability and transparency” (p. 21) in higher education. In order to meet 21st century challenges, the Commission recommended that the U.S. higher education system move to a performance-, rather than reputation- based system, one in which student learning outcomes were measured and reported to stakeholders in meaningful ways (Spellings, 2006). Within its report, the Commission made two specific recommendations: first, that institutions of higher education (IHEs) measure student learning using quality assessment data, and second, that the results of those learning assessments, including value-added metrics demonstrating student learning gains over time, be aggregated and made public (Banta & Pike, 2007). The problem, according to Carol Schneider, then president of the American Association of Colleges and Universities (AACU), was that too many institutions and programs were unable to answer legitimate questions about what their students were learning (Lederman, 2009a).

The call of Spellings’ Commission was not new to the academy. However, the urgent tone and wide distribution of the report, as well as its potential impact on regional accreditation and state regulatory organizations, engendered significant reactions from across higher education. While no Federally-mandated national system of student learning assessment resulted, then newly appointed Secretary of Education Arne Duncan remarked at the American Council on Education's (ACE) 2009 annual meeting that “[i]f we accomplish one thing in the coming years – it should be to eliminate the

extreme variation in standards across America” (Duncan, 2009) and President Barack Obama stated that "transparency is the best form of accountability" (Jaschik, 2009).

In March 2009, guidelines released by the Obama administration regarding use of Federal economic stimulus funds for education reinforced this point and required states that received funds to establish and use pre-K-through-college and career data systems to track progress and foster continuous improvement (Lederman, 2009b). Data driven, comprehensive, demonstrated effectiveness, and cultures of evidence supported by direct, valid, and reliable measures of student learning were not likely to disappear from the higher education landscape (Dwyer, Millett, & Payne, 2006).

Significant questions and a lack of consensus remained in the academy and continued to spur pressure from external forces. For what purpose and from whose perspective were we attempting to specify and measure outcomes (Astin, 1993)? What happened when the interests of Federal or state government, institutional administrators, and faculty perceptions about assessment of learning outcomes conflicted (Nettles & Cole, 1999)? What equilibrium existed between the Federal and state interests in accountability, an institution’s interest in autonomy, and faculty members’ concerns regarding academic freedom (Nettles & Cole, 1999)? What constituted assessment of learning outcomes at the classroom, disciplinary, institutional, state, and Federal level (Burke, 2005)? Could student learning outcomes be articulated or measured at all in a uniform manner (Ewell, 2002)? Could assessment serve the role sought by policy makers to gauge accountability and simultaneously provide a tool for faculty and academic leaders to improve student learning (Braskamp & Schomberg, 2006)?

This study explored the relationships and differences between faculty and academic administrator (AO) beliefs regarding how assessment of student learning outcomes improved student learning at a southeastern community college. This community college had a long history as a learning-centered college, following the early work of Terry O'Banion and the initiation of the learning college movement in the U.S. (League for Innovation in the Community College, 2011) and was known as an exemplar of student learning outcomes assessment.

Background and Context

Assessment and accountability in higher education were not new concepts, and institutions of higher education (IHEs) had been accountable to students, parents, the general public, religious orders, state and Federal governments, and others throughout their history (Callan & Finney, 2005). However, the national agenda for higher education in America formed in the public dialogue following the Spelling's Report clearly called for quality improvement, including transparency regarding student learning outcomes (Edelman, 2008; Erisman & Gao, 2006).

The Social Compact and Public Confidence

After World War II and stimulated by the GI Bill, a social compact formed between higher education and American society; the public acknowledged that access to higher education benefited both societal interests and private interests of students (Burke, 2005). Burke contended that this relationship eroded toward the end of the 1960s, when campus unrest and changing student lifestyles alienated policy makers (2005). By the 1970s, Burke (2005) added that recession-related funding pressures and fears of declines in enrollment created weaknesses in this relationship, and increased regulation emerged with accountability as a lever of funding. A pattern of conflict developed as

states and society demanded more services while reducing support, and IHEs, pressured for additional funding, raised tuitions.

A shift in external concerns from economics to quality began in the 1980s, when complaints about lack of learning appeared in publications such as the National Commission on Excellence in Education's (NCEE's) *A Nation at Risk* (1983), and the 1990s ushered in a period of decentralized direction aligned with the reorganization of U.S. government (Burke, 2005). At the same time, most states had accountability structures in place and the accrediting bodies began to assert (or replace) governmental forces of accountability (Ewell, 2002). As the 21st century arrived, Ewell posited that the 'debate about assessment' continued, framed alternately around whether outcomes could be articulated or measured at all, or if student attainment outweighed societal contributions of IHEs. Volkwein (2007, 2010a, 2010b) noted that IHEs faced Janusian masters in actualizing effective assessment – "the need for internal assessment for purposes of improvement, and the need for external performance reporting for purposes of accountability" (p. 147), while Ewell (2005) concluded that accountability was indirectly served by assessment of learning outcomes, but, ultimately, must be focused on internal improvement.

Measures of Student Learning

A plethora of testing instruments, strategies, and literature existed surrounding the assessment of student learning outcomes. Built on the strong record of the Carnegie Foundation for Higher Education's Graduate Record Examination (GRE), testing organizations developed early assessment engines in the late 1960s and 1970s (Shavelson, 2007). Among these were Educational Testing Services' (ETS') Measure of Academic Proficiency and Progress (MAPP), the American College Testing Services'

Collegiate Assessment of Academic Proficiency (CAAP), and the Council for Aid to Education's Collegiate Learning Assessment (CLA).

In opposition to standardized testing, many recommendations for alternative measures of learning outcomes appeared across the literature in the early 2000s. The League for Innovation in the Community College released *An Assessment Framework for the Community College* in 2004. Dwyer, Millett, and Payne (2006) called for a national initiative to create a system for assessing student learning outcomes that presented a variation of Astin's (1993) input-environment-output, econometrically-based model. In early 2007, The American Association of Colleges and Universities (AAC&U) launched its Liberal Education and America's Promise (LEAP) initiative (AAC&U, 2007). Shulman proposed his "Seven Pillars of Assessment for Accountability" in 2007 as well (Shulman, 2007), and in 2008, Adelman proposed the development of a U.S. qualifications framework 'tuned by disciplines' and a revised credit system modeled on the Bologna process (Adelman, 2008).

Faculty and Chief Academic Officer Beliefs Regarding Assessment

The literature noted that faculty involvement in and responsibility for learning outcomes assessment was the central focus of any successful assessment program (Polumba & Banta, 1999; Hadden & Davies, 2002; Hutchings, 2010a, 2010b). Hadden and Davies noted that "unless faculty own and drive the student learning assessment process," significant and meaningful outcomes-based organizational change was only remotely possible (p. 244). Hutchings stated that faculty involvement in assessment efforts was among "the most enduring themes of the higher education assessment movement – a kind of gold standard widely understood as the key to assessment's impact 'on the ground' where teachers and students meet" (2010b, p. 1). Polumba and

Banta wrote that administrators must demonstrate genuine commitment to assessment and allow faculty time to understand, embrace, and implement their findings in a risk-free environment, while constantly asking questions and providing the support necessary to create an organizational climate that ensured success. Empowerment of faculty leadership in the process and overcoming faculty resistance, Polumba and Banta added, were additional critical factors in the institutionalization of any assessment initiative.

Faculty resistance to accountability and student learning outcomes was widely documented in the literature. As early as 1989, Terenzini noted three primary beliefs that contributed to this resistance: fear of personal evaluation, a belief that outcomes were not measurable, and the perception that outcome measures were oversimplified, misleading, and inaccurate (Terenzini, 2010). Hutchings (2010b, p. 1) used the term "vexing and persistent challenge" to describe faculty resistance to assessment, citing the 2009 National Institute for Learning Outcomes (NILOA) national survey of provosts, which reported increased faculty engagement in assessment as the most pressing challenge to assessment progress on their campuses. A better understanding of faculty and administrator perceptions regarding assessment in Florida community (state) colleges, the purpose of this study, could yield important insights for practice that would enable more effective institutionalization of outcomes-based practices.

Accreditation and the States

Accreditation – the academy's commitment to self-regulation and self-reflection – has been formally acknowledged by the Federal government and states as the arbiter of quality assurance for higher education for more than 100 years. Accreditation served as both a private, institutional quality improvement measure, and a public, quality

assurance tool, and was the sole arbiter of quality assessment and assurance in U.S. higher education (Beno, 2004; Brittingham, 2008). As financial aid to students increased, nearly $78 billion by 2008, the role of accreditation, gatekeepers to accessing that aid at the time of this study, became more and more critical (Neal, 2008). Establishing strategies and common metrics for assessing college and student learning outcomes concerned educators, policymakers, and accrediting agencies alike for more than twenty years. However, until the late 1990s, the primary impetus for most U.S. higher education institutions to undertake assessment of student learning outcomes was an impending regional accreditation self-study (Shupe, 2007). In compliance with U.S. Department of Education standards, the Council for Higher Education Accreditation (CHEA) required that all accrediting agencies it supervised had standards that encouraged student learning outcomes assessment plans and programs in place (Whittlesey, 2005).

Regional accrediting organizations had been deeply involved with assessment since the early 1900s and had intensified their focus on student learning and assessment during the 1990s (Beno, 2004; Brittingham, 2008). The Southern Association of Colleges and Schools (SACS) was a frontrunner among the regional associations regarding assessment and embedded the process of outcomes examination as a means of demonstrating instructional and learning effectiveness in 1984 (Nettles, Cole, & Sharp, 1997). In 2008, CHEA and AAC&U together released *New Leadership for Student Learning and Accountability: A Statement of Principles, Commitments to Action*. This report challenged higher education institutions to

“constantly monitor” student learning quality, using results to both improve student achievement and demonstrate value to the public writ large.

State governments were significant participants in the early assessment movement, more prominent initially than the regional accrediting organizations (Ewell, 2001). According to Astin (1993) “the real state interest in formulating higher education policy on assessment … is to facilitate the institutions’ task of developing the human capital in the state” (p. 218). Assessment of student learning outcomes mandates from the states flourished until the late 1980s, when governors and state legislators, faced with recessionary downturns and other fiscal constraints, began to replace the ‘soft approach’ with performance-based budgeting and other accountability scales (Burke & Minassians, 2004). By the early 1980s, Florida, Tennessee, and Georgia already had statewide comprehensive examinations in place for student attending state colleges and universities, and were later joined by New Jersey and South Dakota (Ewell, 2001). By 1989, Ewell (2001) noted that nearly half the states had some type of institution-focused assessment approach in place.

Assessment in Florida began in 1982, with the state’s instigation of required common cognitive outcomes testing, the College-Level Academic Skills Test (CLAST), (Nettles et al., 1997). Mandatory common-criteria entry-level placement tests were implemented in 1983, assessment of curricula was mandated in 1988, and in 1991, responding to a “perceived concern that the public did not have adequate and appropriate information about how colleges and universities function[ed],” the state legislature passed accountability reporting requirements (Nettles et al., 1997, p. 79).

The Government Performance and Accountability Act was enacted by the Florida Legislature in 1994, and in what might have been viewed as a step toward accountability, higher education funding in Florida was tied to demonstrated outcomes in direct and indirect ways (Nettles et al., 1997). In 2004 the Florida Council of 100 Higher Education Funding Task Force, called for the Florida Legislature to ensure institutional accountability, align objectives with clearly defined and measured outcomes appropriately, and develop performance scorecards for all (public and private) universities in the system that were aligned with state goals and objectives (Florida Council of 100, 2004, p. 21). Such a scorecard was yet to be seen in Florida at the time of this study.

Purpose of the Study

The purpose of this study was to examine the relationships and differences between faculty and academic administrator beliefs regarding the value that assessment of student learning outcomes added to the improvement of student learning at a southeastern community college recognized for its commitment to the learning college concept. The results of this study could help to provide community college administrators with an understanding of the institutional human factors required to support and sustain effective assessment of student learning outcomes programs.

Defining Assessment of Student Learning Outcomes

Beginning in the mid-1980s, definitions of ‘learning outcomes’ and references to the ‘assessment of learning outcomes’ began to appear in the literature. Those definitions were refined over the next two decades by Angelo (1995), Polumba and Banta (1999), Ewell (2001), Volkwein (2003), and Suskie (2004). Huba and Freed set one of the most often used definitions in 2000, when they noted,

> [a]ssessment is the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with this knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve subsequent learning. (p. 8)

For the purposes of this study, assessment of student learning outcomes was defined as the ongoing, systematic, and intentional collection, review, and use of educational program data to inform improvements in student learning and development.

Understanding the Notion of Beliefs

Fishbein and Ajzen (1975) postulated that beliefs referred to a person's understanding and subjective probability judgments concerning themselves and some distinct aspect of their world. For these authors, beliefs were defined as "the subjective probability of a relation between the object of the belief and some other object, value, concept, or attribute" (p. 131). Such connections took the form of direct experiences (descriptive beliefs), combinations of direct and past experiences (inferential beliefs), or information from outside sources (informational beliefs) according to Fishbein and Ajzen, who added that "descriptive and inferential beliefs are not capricious, nor are they systematically distorted motivational or emotional biases" (p. 215).

Based on the earlier work of Bandura, Dewey, Nisbett, Ross, and Rokeach, Pajares (1992) argued that beliefs influenced how individuals characterized phenomena and made sense of the world. Writing that beliefs were difficult to define and equally difficult to bring forth, Pajares added that despite the "messy nature" of beliefs, educational research based on instructor beliefs was the "best indicator of decisions individuals make throughout their lives" (p. 307). Pajares wrote that beliefs "travel in disguise and often under alias – attitudes, values, judgments, axioms, opinions, ideology, perceptions, conceptions, conceptual systems, preconceptions, dispositions,

implicit theories, explicit theories, personal theories, internal mental processes, action strategies, rules of practice, practical principles, perspectives, repertories of understanding, and social strategy, to name but a few …" (p. 309).

In his work on a theory of teaching in context, Schoenfeld (1998) attempted to describe why instructors made specific decisions and took specific actions as they were engaged in teaching. Schoenfeld wrote that there was not a precise connection between instructor beliefs and their subsequent actions, and stated that beliefs were "mental constructs that represent[ed] the codifications of people's experiences and understandings" (§ 3.3.3, ¶ 1), that beliefs had "a strong shaping effect on behavior" (§ 3.3.3, ¶ 4), and that there was a "major difference between professed beliefs and attributed beliefs" (§ 3.3.3, ¶ 4). Schoenfeld also articulated two key issues essential to understanding subtleties and complexities involved in the concept of beliefs.

> The first issue is that people may say A and do B, and the two may not be compatible. Hence, we must distinguish between their professed beliefs and the beliefs that underlie actual behavior. When people behave in certain ways, we attribute beliefs to them. As noted, these attributions may or may not correspond to those people's professed beliefs. The second issue is that I want to be as precise as possible about the attribution process. We can never know what someone truly believes. Hence, when we attribute beliefs to someone (or to a model of that person's behavior), what we are really saying is: "this person behaves in a way that is consistent with his or her having those beliefs." (Schoenfeld, 1998, § 3.3.3, ¶ 4)

For the purposes of this study, and in keeping with Schoenfeld's (1998) concept, professed beliefs were defined as the complex personal convictions or ideas that represented the codifications of faculty and academic administrators' experiences and understandings regarding assessment of student learning outcomes. Where the term 'belief' was noted within this study, the researcher referred to professed beliefs, with no guarantee that such reflected authentic beliefs held by those participating in the study.

Research Questions and Methodology

The purpose of this study was to examine differences in beliefs held by full-time faculty and academic administrators regarding the value of assessment of student learning outcomes at a southeastern community college recognized for its commitment to the concept of the learning college. Specifically, the study sought to examine whether or not full-time faculty and AOs in this college believed that assessment of student learning outcomes improved student learning and could improve teaching.

To determine overall beliefs regarding the value of the ASLO at the institution studied, the researcher examined beliefs held by both full-time faculty and administrators regarding the value of ASLO, beliefs regarding the use of ASLO, and beliefs regarding impact of ASLO on teaching and learning.

In addition to the primary Research Question (RQ) stated above, the following 13 questions were also of concern. Research Questions 1-4 focused on faculty and academic administrator beliefs held regarding the *value* of ASLO, and were as follows.

RQ1. Were there differences in the beliefs held by full-time faculty and AOs regarding the value of ASLO?

RQ2. Was there a difference in beliefs held regarding the value of ASLO for either full-time faculty or AOs based on the locus of their program responsibility, e.g., did beliefs regarding the value of ASLO differ between full-time faculty teaching in or administrators supervising Associate of Arts (AA) or Associate of Science/Associate of Applied Science (AS/AAS) programs, or those teaching in both AA and AS/AAS programs?

RQ3. Did longevity at the institution cause a difference in beliefs held regarding the value of ASLO for either full-time faculty or AOs, e.g., did the number of years full-time faculty had been teaching at the college or that administrators had been working at the college related to differences in beliefs regarding the value of ASLO?

RQ4. Did the number of years full-time faculty or AOs had been involved in assessment activities cause a difference in beliefs held regarding the value of ASLO?

Research Questions 5-8 involved faculty and academic administrator beliefs held regarding the *use* of ALSO, and comprised the following.

RQ5. Were there differences in the beliefs of AOs and full-time faculty regarding the use of assessment of student learning outcomes?

RQ6. Was there a difference in beliefs held regarding the use of ASLO for either full-time faculty or AOs based on the locus of their program responsibility, e.g., did beliefs regarding the use of ASLO differ between full-time faculty teaching in or administrators supervising AA or AS/AAS programs, or those teaching in both AA and AS/AAS programs?

RQ7. Did longevity at the institution cause a difference in beliefs held regarding the use of ASLO for either full-time faculty or AOs, e.g., did the number of years full-time faculty had been teaching at the college or that administrators had been working at the college related to differences in beliefs regarding the use of ASLO?

RQ8. Did the number of years full-time faculty or AOs had been involved in assessment activities cause a difference in beliefs held regarding the use of ASLO?

Research Questions 9-10 explored faculty and academic administrator beliefs in the impact that ASLO had on teaching and learning.

RQ9. Did full-time faculty members believe that their use of assessment of student learning outcomes informed their teaching? Did AOs believe that the use of assessment of student learning outcomes informed teaching at the college?

RQ10. Did full-time faculty members believe that their use of assessment of student learning outcomes improved student learning? Did AOs believe that the use of assessment of student learning outcomes improved student learning at the college?

Finally, Research Questions 11-13, explored through multiple response, open-ended survey questions and qualitative research methods, focused on definitions of ASLO, influential individuals in the ASLO process, and improvement factors in the ASLO effort.

RQ11. What themes were present in AO and full-time faculty definitions of assessment of student learning outcomes? Did the themes of assessment of student

learning outcomes definitions espoused by full-time faculty across the college vary by division?

RQ12. Who did AOs and faculty believe were the influential individuals in the ASLO effort on this particular campus? Were there differences in beliefs between AOs and faculty regarding these influential individuals?

RQ13. What factors did AOs and faculty believe would contribute significantly to the improvement of ASLO efforts at this college? Did the factors valued by AOs differ from those of faculty?

To accomplish the goals of the study, all faculty and AOs at one southeastern community college were surveyed via a web-based instrument focused on the research questions above and described in detail in Chapter 3. Data collected through the administration of an Internet-administered survey, based on Huba and Freed's (2000) *15 Key Questions to Consider When Establishing or Evaluating an Assessment Program* and earlier work completed by Rothgeb (2008), was then aggregated by locus of assignment (AA versus AS/AAS) to examine assessment value (AV) and assessment use (AU) composite scores.

Significance and Policy Implications

The Commission on Colleges of the Southern Association of Colleges and Schools (SACS) noted that in order to meet regional accreditation standards, all institutions were expected to identify and assess learning outcomes (Southern Association of Colleges and Schools [SACS], 2008). By 2008, SACS accreditation also required institutions to assess the extent to which they had achieved these outcomes and provide evidence of improvement based on analysis of results.

Understanding beliefs about assessment held by AOs and faculty at this southeastern community college that were highly aligned to Huba and Freed's (2000) framework provided insights and effective implementation strategies for other

community colleges. Understanding differences in perceptions between faculty members and AOs also provided keys to reducing barriers to embedding assessment of student learning outcomes as a means for continuous improvement of student learning at similar institutions. Consistencies and patterns of perceptions that emerge at highly aligned institutions could also provide demonstrated success strategies informing institutional, system, or statewide formation of common benchmarks for assessment of student learning outcomes. Such information could provide institutions less far along in the process of institutionalizing student learning outcomes assessment into their organizational cultures with an affordable resource from which to cost-effectively implement such initiatives.

Definition of Terms

- ACADEMIC ADMINISTRATOR (AO). Academic administrators (president, vice presidents, provosts, deans, and directors), division chairs, department chairs, or program coordinators responsible for oversight and decisions pertaining to assessment of student learning outcomes.

- ASSESSMENT FOR ACCOUNTABILITY. Primarily a regulatory process, one most often driven externally by legislative or legislatively-authorized entities, more concerned with performance measures providing comparisons to specified norms (Volkwein, 2010a, 2010b; Frye, 1999).

- ASSESSMENT FOR EXCELLENCE. An information feedback process that benefited all institutional stakeholders, specifically students (learners) and faculty members (teachers), designed to improve teaching and learning performance (Volkwein, 2010a, 2010b; Frye, 1999).

- ASSESSMENT OF STUDENT LEARNING OUTCOMES (ASLO). The ongoing, systematic, and intentional collection, review, and use of educational program data to inform improvements in student learning and development (Angelo, 1995; Polumba & Banta, 1999).

- ASSOCIATE OF ARTS (AA) DEGREE OR PROGRAM. College or university parallel programs that provide the first two years of a four-year college curriculum; often referred to as a transfer degree or program.

- ASSOCIATE OF SCIENCE/ASSOCIATE OF APPLIED SCIENCE (AS/AAS) DEGREE OR PROGRAM. Technological and vocational degree programs that are generally completed in two years of college study and are usually sufficient for entrance into an occupational field.

- BELIEFS ABOUT ASSESSMENT. The complex personal convictions or ideas that represented the codifications of faculty and academic administrators' experiences and understandings regarding assessment of student learning outcomes. Where the term 'belief' was noted within this study, the researcher referred to professed beliefs, with no guarantee that such reflected genuine beliefs held by those participating in the study.

- STUDENT LEARNING OUTCOMES. Education-related consequences (knowledge, skills, and abilities) attained at the end (or as a result) of students' postsecondary educational experiences (Terenzini, 1997; Institute for Research and Study of Accreditation and Quality Assurance, 2003).

Organization of the Study

This research study encompasses five chapters. The Chapter 1 provides an introduction, including the context and background of the assessment issue, its significance, and policy implications, the purpose of the study, and an overview of the research question and methodology. Chapter 2 reviews the current literature applicable to the research study. In Chapter 3, research design and methodology are presented, including processes undertaken for participant selection, sampling, data collection, and analyses. Findings of the data analysis are detailed in Chapter 4. Chapter 5 presents a discussion of the results, policy and practice implications for higher education professionals, and suggestions for further research.

CHAPTER 2
LITERATURE REVIEW

Educational participation and postsecondary attainment rates in the U.S. during the 1980s and 1990s declined (NCPPHE, 2008; Ewell & Wellman, 2007; Miller, 2008). These declines indicated increasing gaps between national needs from post-secondary education and current and future capacity of the system to meet those needs (NCPPHE, 2008; Ewell & Wellman, 2007; Miller, 2008). As a result, since the mid-1980s, the general public, parents, and state and Federal policy makers increasingly called for a culture of evidence accounting for student learning in college (Burke, 2004, 2005; Ewell & Wellman, 2007; Immerwahr & Johnson, 2009; Shavelson, 2007; Shulman, 2007; SHEEO, 2005; Spellings, 2006). Educational policy incorporating practices that built faculty trust in the multiple roles of assessment and aided academic administrators (AOs) in restoring public confidence through the measures used served as a potential answer to the persistent higher education accountability question (Braskamp & Schomberg, 2006).

The purpose of this literature review was to provide a context and rationale from which to understand the need for research on faculty and academic administrator (AO) beliefs related to student learning outcomes assessment and to situate student learning outcomes assessment within the broader landscape of higher education accountability. The differentiation of assessment for excellence and assessment for accountability, as well as a brief history of the movement toward higher education accountability and assessment, including critical studies and reports, an overview of the assessment of student learning outcomes movement, and a discussion of the common instruments (and controversies) in use were presented. An overview of the roles of regional

accrediting agencies, the states, faculty, AOs, and institutional mission in the movement toward accountability was shown in section two. Section three provided a summary of the literature on developing cultures of evidence and assessment, and the evolution of assessment of student learning outcomes, including definitions, characteristics of effective programs, and best practices in community college assessment of student learning outcomes.

Assessment for Excellence versus Assessment for Accountability

Frye (1999) noted that assessment and accountability were often erroneously and confusingly interchanged. Motivated by Angelo, Ewell, Burke, and others, Frye defined assessment for excellence as an information feedback process that benefited all institutional stakeholders, specifically students (learners) and faculty members (teachers) designed to improve teaching and learning performance. Assessment for accountability was described as a primarily regulatory process, one most often driven externally by legislative or legislatively-authorized entities, and one more concerned with performance measures providing comparisons to specified norms (Frye, 1999). Shulock (2005) explained this conflict as the ‘accountability culture gap’ between policymakers and the academy, a gap in which policymakers demanded unambiguous, quick, and concise data, while the academic community questioned the validity of measuring academic quality and equity in tidy packets.

Assessment served both purposes simultaneously, posited Braskamp and Schomberg (2006), by both improving student learning and serving as a basis for institutional accountability, without one superseding the other. By 2007, Wehlburg argued that while the feedback loop was required, it was two-dimensional and not sufficient, and that continuous monitoring, termed an assessment spiral, was needed to

improve quality intentionally in each assessment cycle. Ewell (2005) concluded that accountability was indirectly served by assessment of learning outcomes, but ultimately must be focused on internal improvement, while Volkwein (2007) also noted that institutions of higher education (IHEs) faced Janusian masters – "the need for internal assessment for purposes of improvement, and the need for external performance reporting for purposes of accountability" – in actualizing effective assessment (p. 147).

Brief History of Accountability and Outcomes Assessment

For nearly 35 years, a complex relationship formed between assessing student learning and demonstrating accountability within the academy (Shavelson, 2007). As the social compact that had formed between higher education and American society after World War II broke down during the 1970s, increased regulation emerged with accountability as a funding lever (Burke, 2005). Burke contended that a resulting pattern of conflict developed as states and society demanded more services yet simultaneously reduced support, and IHEs pressured for additional funding and raised tuitions.

Critical Studies and Reports

The shift in external concerns from economics to quality began in the 1980s, when complaints of lack of learning appeared in the National Commission on Excellence in Education's (NCEE's) *A Nation at Risk* (1983). O'Banion (1997) noted that more than 100 national and 300 state reports had been written since NCEE's seminal work pointed to a 'rising tide of mediocrity' in higher education. Most states had accountability structures in place by this time, and the regional accrediting organizations asserted (or replaced) governmental forces of accountability (Ewell, 2002).

The 1990s ushered in a period of decentralized direction aligned with the reorganization of the U.S. government and predictions that assessment would 'go away'

seemed illusory (Burke, 2005; Ewell, 2002). During the late 1990s, the National Postsecondary Education Cooperative (NPEC) formed two working groups focused on student outcomes: one group on policy and one on data collection and use (Grace & Gray, 1997; Terenzini, 1997). The NPEC groups completed case studies, developed taxonomies of student learning outcomes, and produced substantial evaluative reports. Yet Gray and Grace, authors of the policy group report, noted that "disagreement among educators and policymakers about the purposes and goals of higher education further stymie assessment efforts, especially in a policy context" (p. 3). As the 21st century arrived, Ewell (2002) noted that the assessment debate continued, framed alternately around whether outcomes could be articulated or measured at all, or if they should be focused on student attainment versus higher education's societal contribution.

Multiple calls from national organizations related to accountability and assessment were issued at the start of the new century. The National Commission on Accountability in Higher Education (NCAHE) in *Accountability for Better Results – A National Imperative for Higher Education* (State Higher Education Executive Officers [SHEEO], 2005) argued that the current cumbersome, over-designed, and inefficient system of higher education accountability overburdened institutions, yet failed to answer key questions. The NCAHE called for all higher education stakeholders – higher education leaders, Federal and state policymakers, and business and civic leaders – to undertake rigorous measurement of results intended to sustain improvement. NCAHE pointed specifically to two decades of work completed by the American Association of Colleges and Universities (AAC&U) *Greater Expectations* project as a national model. This

AAC&U project, which began with *Greater Expectations: A New Vision for Learning as a Nation Goes to College* (2002), evolved into the association's decade-long *Liberal Education and America's Promise* (LEAP) initiative, initiated in 2005, that focused higher education's discussion on and built consensus around student learning outcomes and a framework for institutional accountability (AAC&U, 2007). The AAC&U framework promoted high standards of student achievement premised on three elements and five outcomes (AAC&U, 2004). Critical elements were clear: collective understanding of the qualities of a college-educated person, intentional and coherent educational programs to cultivate those qualities, and ongoing assessment to measure the extent of the outcomes achieved (AAC&U, 2004). By 2007, these essential outcomes were clarified and became known as the LEAP learning outcomes, clusters of competencies designed for intentional learners focused on developing knowledge of human cultures and the physical and natural world; intellectual and practical skills; personal and social responsibility; and integrative student learning at ascending levels of study (AAC&U, 2007).

Data Don't Drive: Building a Practitioner-Driven Culture of Inquiry to Assess Community College Performance, released by the Lumina Foundation in December 2005, was a national benchmarking template for performance, diagnostics, and processes practices used to document achievements, shortcomings, and environments in community colleges (Dowd, 2005). The report recommended cultures of inquiry that placed IHE practitioners, rather than data, at the center of the process and argued that peer comparison processes could encourage innovation, organizational change, and faculty and administrator behaviors related to student success.

In 2006 and 2007 the turbulence surrounding accountability reached an all-time high. In May 2006, the Institute for Higher Education Policy (IHEP) issued its report *Making Accountability Work: Community Colleges and Statewide Higher Education Accountability Systems*, which argued that statewide accountability systems were not likely to provide state policymakers with the information needed to make effective choices regarding performance and growth of undergraduate education in community versus state college systems (Erisman & Gao, 2006). The IHEP findings called for a focus on benchmarking and evaluation based on six criteria: focus, differentiation of mission, contextualization integrity, attention to resources, as well as stability and usability of data to measure outcomes.

In June of 2006, Educational Testing Service (ETS) issued recommendations to higher education policymakers and participants in its report *A Culture of Evidence: Postsecondary Assessment and Learning Outcomes* (Dwyer et al., 2006). Dwyer's report contended that the postsecondary community was bereft of hard effectiveness evidence and lacked cultural orientation toward demonstrated student learning outcomes. Dwyer argued that there was no model or instrument(s) that could comprehensively provide accountability for higher education in the U.S. The report further charged the six regional postsecondary accrediting agencies with developing of integrated national system of assessment based on pre-college inputs and post-college outputs that included four dimensions of student learning – workplace readiness and general skills; domain-specific knowledge and skills; soft skills including teamwork, communication, and creativity; and student engagement with learning.

Just three months later, in September 2006, then U.S. Department of Education Secretary Margaret Spellings released the final version of *A Test of Leadership: Charting the Future of U.S. Higher Education*, the report of her Commission on the Future of Higher Education. The Spellings Commission called for a "robust culture of accountability and transparency" in higher education (p. 21). In order to meet 21st century challenges, the Commission further recommended that the U.S. higher education system become a performance- rather than reputation-based system, one in which student learning outcomes were measured and reported to stakeholders in meaningful ways (Spellings, 2006). Within its report, the Commission made two specific recommendations: first, that IHEs measure student learning using quality assessment data and second, that results of learning assessments, which included value-added metrics demonstrating student learning gains over time, be aggregated and made public (Banta & Pike, 2007). The problem, according to Carol Schneider, then president of the AAC&U, was that too many institutions were still unable to answer legitimate questions about what their students were actually learning (Lederman, 2009a).

Partnerships for Public Purposes: Engaging Higher Education in Societal Challenges of the 21st Century was released by the NCPPHE in 2008 (Wegner, 2008). In this report, Wegner contended that any successful program designed to optimize learning must articulate standards of progress that had meaning and support in and out of higher education, must measure results according to those standards, and must make explicit the use of results gathered to make changes necessary to improve learning results. Wegner concluded, "[T]here is no more telling sign of accountability

than a demonstrated commitment to measure results and to use feedback to improve performance" (p. 7).

The Assessment of Student Learning Outcomes Movement

In response to growing Federal, state, and public scrutiny, a palpable shift in perceptions regarding assessment and accountability occurred within the higher education academy during the early 21st century. Allen and Bresciani (2003) noted that prodding from external forces shifted the focus of conversations on assessment from input-based questions (e.g., how many students per faculty there were) to outcomes-based questions (e.g., what evidence did we have that our students were learning what faculty claim to have taught). Terry O'Banion (1997) posed two questions at the heart of learning colleges and their efforts to assess the viability of their work with students that most eloquently embraced the notion of student learning outcomes: first, did actions taken improve and expand student learning and second, how did educators know? Finally, in work with the National Forum on College Level Learning, Miller (2008) took these questions one step further to ask what was described as the 'educational capital' question: what did a given state's college-educated students know and what might they contribute to society with that knowledge?

Ewell (2002) described the history of the assessment movement as having two rounds: the first, in the mid-1980s and the second, a decade later in the mid-1990s. According to Ewell (2002), policy discussions related to assessment of student learning outcomes most probably began in the U.S. at the 1985 First National Conference on Assessment in Higher Education held in Columbia, South Carolina. Two national and ideologically antithetical reports drove the discourse of this early period. The first, *Involvement in Learning*, released by the National Institute on Education in 1984,

argued that transformative change in higher education would be achieved through high expectations, active and engaging pedagogies, and frequent feedback on progress, which essentially would drive institutional improvement and make institutions of higher education learning organizations (Ewell, 2005). The second, the National Governor's Association 1986 report entitled *A Time for Results*, argued that IHEs should be held responsible for establishing clear standards for student performance, gathering performance data, public reporting of results, and that those results should be coupled with consequences (Ewell, 2005). By the mid-1990s, due in part to recessionary times and budget cuts, the assessment conversation shifted as regional accreditors replaced states as the drivers of outcomes assessment (Ewell, 1993). Ewell (2005) noted that SACS adopted its 'institutional effectiveness' criterion in 1986, and that all eight regional accreditors had done the same by 2005. Under these new accreditation standards, IHEs were expected to establish learning outcomes, utilize tools of their choosing to gather quantifiable evidence, and employ results obtained for continuous improvement (Ewell, 2005). This convoluted history led IHEs and the assessment of student learning to stasis at the time of the accountability maelstrom in the mid-2000s. Assessment, for the most part, was undertaken by IHEs because accreditors or states required it. Given those external drivers, IHE faculty rarely engaged in the process willingly and left the process to administrators (Ewell, 2005). Where were the learners and whether they were learning what faculty were teaching in this process?

Changes in curriculum, in teaching methods, and in the intentional educational experiences of students should result from assessment of student learning (Wehlburg, 2007). Priddy (2007) noted that learning became the end, and assessment the means,

when institutions shifted their focus to asking, answering, and acting on questions related to student learning. Priddy also noted three types of organizational approaches to student learning: those that viewed the focus on assessment as a mandate of accreditation, those that made a commitment to student learning and viewed assessment as a means of continuous improvement of that learning, and finally, those that held close the larger notion of embracing assessment a means of increasing an institution's capacity to attend to student learning. Shupe (2007) noted that community colleges that developed the organizational capacity to achieve sustained focus on student learning outcomes were likely to significantly improve organizational function in the longer term.

Role of Regional Accrediting Agencies and the States

The debate regarding standards for learning outcomes was intensified in the U.S. because the Federal government authorized, but did not control, accreditation of higher education institutions (Daniel, Kanwar, & Uvalic-Trumbic, 2009). The Tenth Amendment to the U.S. Constitution stated, "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people" (Shoop & Dunklee, 2005, p. 21). Shoop and Dunklee also noted that education was not mentioned anywhere in the Constitution and that the U.S. Supreme court had consistently upheld the rights of states regarding the welfare of citizens, including education.

The regional accreditation process emerged originally as an outgrowth of the 1906 meeting of the National Association of State Universities (NASU) at which IHE leaders and regional association representatives made recommendations regarding common institutional definitions and admissions standards (Nettles et al., 1997). With the passing

of the Servicemen's Readjustment Act of 1944, also known as the G.I. Bill of Rights, accreditation emerged as the governmental means of oversight for Federal financial aid dollars to veterans (Neal, 2008; U.S. Department of Veterans Affairs, 2009). Neal noted that this statute called for accreditors to be the “reliable guarantors of educational quality” (2008, p. 25) and charged the U.S. Secretary of education with oversight of accrediting certification.

Regional Accreditation and ASLO

Accreditation – the academy’s commitment to self-regulation and self-reflection – has been formally acknowledged by the Federal government and states as the arbiter of quality assurance for higher education for more than 100 years. The process emerged as an outgrowth of the 1906 meeting of the National Association of State Universities (NASU) at which IHE leaders and regional association representatives made recommendations regarding common institutional definitions and admissions standards (Nettles et al., 1997). Accreditation served both a private institutional quality improvement and public quality assurance function and was the sole arbiter of quality assessment and assurance in the U.S. (Beno, 2004; Brittingham, 2008).

By 2005, all U.S. regional and disciplinary accrediting organizations were subject to review by the Council for Higher Education Accreditation (CHEA) (Whittlesey, 2005). Judith S. Eaton, president of CHEA, noted that regional accreditation was a “powerful professional peer review process by which academic quality may be judged” (Eaton, 2009, n.p.), one that was “trust-based, standards-based, evidence-based, [and] judgment-based (Eaton, 2006a, p.7). As financial aid to students increased, nearly $78 billion by 2008, the role of accreditation as gatekeeper to accessing that aid became more and more critical (Neal, 2008). In 2010, the Middle States Association of Colleges

and Schools, New England Association of Schools and Colleges, North Central Association of Colleges and Schools, Northwest Commission on Colleges and Universities, Southern Association of Colleges and Schools, and the Western Association of Schools and Colleges comprised the six regional associations accrediting colleges and universities in the U.S.

Establishing strategies and common metrics for assessing college and student learning outcomes concerned educators, policymakers, and accrediting agencies alike for more than 20 years. However, until the late 1990s, the primary impetus for most U.S. higher education institutions to undertake assessment of student learning outcomes was an impending regional accreditation self-study (Shupe, 2007). CHEA defined accreditation as a non-governmental "process of external quality review created and used by higher education to scrutinize colleges, universities, and programs for quality assurance and quality improvement" (Eaton, 2006a).

In compliance with U.S. Department of Education standards, CHEA mandated that all accrediting agencies set standards that required student learning outcomes assessment plans and programs (Whittlesey, 2005). By 2006, all CHEA accrediting organizations required institutions to provide evidence of institutional performance and student achievement, and 85% required outcomes-based standards (Eaton, 2006b). By 2010, all six of the U.S. regional accrediting organizations assured quality through self-study, peer review, and site visits that occurred on a regular cycle, normally once every 10 years (Council for Higher Education Accreditation [CHEA], 2010). Further, in order for higher education institutions to receive funding, student aid, and continue professional licensure, most states required regional accreditation following initial

licensing (Nettles et al., 1997). However, in November 2008, CHEA noted the need to strengthen the rigor of the self-regulation process to restore public confidence in accreditation's ability to ensure accountability to students and society at large, and called for IHEs to actively develop a shared definition of student achievement (Eaton, 2008).

Regional accrediting organizations, which had been deeply involved with assessment since the early 1900s, thus intensified their focus on student learning and assessment during the 1990s (Beno, 2004; Brittingham, 2008). The Southern Association of Colleges and Schools (SACS) was a frontrunner among the regional associations regarding assessment and embedded outcomes examination as a means of demonstrating instructional and learning effectiveness in 1984 (Nettles et al., 1997). To encompass data driven, quality-improvement-oriented, strategic management processes, SACS adopted the term *institutional effectiveness* (Welsh, Petrosko, & Metcalf, 2003; Welsh & Metcalf, 2003). Head (2011) noted that institutional effectiveness could be thought of as comprising three A's: assessment of student learning outcomes, accreditation, and accountability. Section 3.3 Institutional Effectiveness of the SACS 2008 *Principles of Accreditation: Foundations for Quality Enhancement* required IHEs to identify expected outcomes, assess the extent to which outcomes were achieved, and "provide evidence of improvement based on analysis of the results in … educational programs, to include student learning outcomes" (SACS, 2008, p. 25).

Welsh and Metcalf (2003) stated that 'institutional effectiveness' was comprised of "student learning outcomes, academic program review, strategic planning, performance

scorecards, performance benchmarking, and quality measurements" (p. 34). Though specific terminology differed slightly for other regional accreditors, all regionally accredited IHEs were required to demonstrate that acceptable processes for institutional effectiveness, including assessment of student learning outcomes, were in place (Beno, 2004; Welsh & Metcalf, 2003). Beno argued that accreditors had more than simply added student outcomes to an indicators list; they had "recast the meaning of institutional effectiveness to require that institutional assessment and improvement strategies ultimately support learning or result in improved student learning" (p. 67)

In 2008, CHEA and AAC&U together released *New Leadership for Student Learning and Accountability: A Statement of Principles, Commitments to Action*. This report challenged IHEs to constantly monitor student learning quality and use results to both improve student achievement and demonstrate value to the public writ large (AAC&U, 2008). Toward this goal, CHEA laid primary responsibility for achieving excellence on IHEs and urged institutions to develop specific, ambitious, and clearly stated goals for student learning, and to gather specific evidence about how well students across programs were achieving those goals (AAC&U, 2008). The report concluded:

> [s]ince our goal is nothing less than a comprehensive, broadly based effort to address the vital issues of transparency and accountability through rigorous attention to the performance of our colleges and universities, we commit ourselves to take specific actions and to encourage our colleagues throughout higher education to join us in improving student learning. (AAC&U, 2008, p. 4)

The Role of the States

State governments were significant participants in the early assessment movement, more prominent initially than regional accrediting organizations (Ewell,

2001). According to Astin (1993), “[T]he real state interest in formulating higher education policy on assessment … [was] to facilitate the institutions’ task of developing the human capital in the state” (p. 218). Astin described four models of state policies to enhance human capital development: value-added assessment for incentive funding (the Tennessee model of performance funding for pre- and post-testing of student outcomes improvement), competency testing (the Florida College Level Academic Achievement Test, or CLAST), locally controlled mandated testing (Missouri, Virginia, Colorado, and other states during the 1980s), and challenge grants (attempted in New Jersey during the late 1980s). Assessment of student learning outcomes mandates from the states flourished until the late 1980s, when governors and state legislators, faced with recessionary downturns and other fiscal constraints, began to replace this ‘soft approach’ with performance-based budgeting and other accountability scales (Burke & Minassians, 2004).

By the early 1980s, Florida, Tennessee, and Georgia had statewide comprehensive examinations in place for students attending state colleges and universities, and were later joined by New Jersey and South Dakota (Ewell, 2001). By 1989, Ewell (2001) noted that nearly half the states had some type of institution-focused assessment approach in place. According to Burke (2004) 15 states initiated some form of formula-based performance funding during the 1990s, though nearly one-third of those states later set performance formulas aside. By 2008, most states that had not turned assessment over to regional accreditors completely were committed to campus-based assessment, thus little attention was focused on state-wide questions of learning outcomes (Miller, 2008). Miller added that states had often taken on faith the notion that

colleges and universities served the greater good and were therefore exempt from scrutiny.

Faculty and Academic Officers

A belief in the importance of undergraduate learning and its improvement were held by faculty, administrators, and staff in IHEs across America by the start of the 21st century (Tagg, 2007). Posited just as often, however, was a faculty perception that assessment was a task to be undertaken solely for accreditation, rather than for an ongoing process of continuous improvement (Wehlburg, 2007). Braskamp and Schomberg (2006) wrote that despite declining funding from state and Federal sources, faculty, and all stakeholders in higher education had to recognize that public accountability was a fact, for past investments, current support, and future support.

Faculty Roles and Beliefs

The greatest challenge in any assessment effort, wrote Angelo (2002), was the sustained and broadly-based engagement of faculty. As arbiters of the curriculum, faculty were, collectively and individually, primarily responsible for student learning and reform of academic programs or teaching under the tenets of academic freedom, according to the American Association of University Professors (AAUP) (Gold, Rhoades, Smith, & Kuh, 2011). This position placed the faculty squarely at the center of the assessment process and added to the existing tension between assessment for improvement of teaching and learning, and assessment for accountability (Gold et al., 2011).

Throughout the literature it was noted that implementation of successful assessment of student learning outcomes programs required significant faculty investment their willingness to conceptualize courses in terms of measurable outcomes

(Dues, Fuehne, Cooley, Denton & Kraebber, 2008; Boorstein & Knapp, 2005; Hadden & Davies, 2002; Welsh et al., 2003; Polumba & Banta, 1999; Hutchings, 2010a, 2010b). Hadden and Davies noted that "unless faculty own and drive the student learning assessment process," significant and meaningful outcomes-based organizational change was only remotely possible (p. 244). Hutchings stated that faculty involvement in assessment efforts was among "the most enduring themes of the higher education assessment movement – a kind of gold standard widely understood as the key to assessment's impact 'on the ground' where teachers and students meet" (2010b, p. 1).

As pressures for accountability and institutional effectiveness activities increased, faculty support for institutionalized assessment efforts did not (Welsh et al., 2003). As early as 1989, Terenzini noted three primary beliefs that contributed to this lack of support and resistance: fear of personal evaluation; beliefs that outcomes were not measurable; and perceptions that outcome measures were oversimplified, misleading, and inaccurate (Terenzini, 2010). Assessment of any sort other than end of semester grading threatened the faculty status quo and academic freedom for some faculty (Hadden & Davies, 2002; Welsh & Metcalf, 2003; Welsh et al., 2003). Ewell (1989) contended that since many faculty members perceived assessment as an effort undertaken at the instruction of others, they failed to internalize the process as one of faculty responsibility. Banta (2004) noted that many faculty teaching within the academy, not having been trained as teachers, feared learning outcomes and their assessment altogether. Derek Bok (2006), in *Our Underachieving Colleges*, noted that the prospects of creating learning organizations in American colleges were not probable given that important faculty interests served as obstacles to doing so.

Hutchings (2010b, p. 1) summed up the problem in stating that faculty resistance to assessment was a “vexing and persistent challenge” to assessment efforts, citing Kuh’s 2009 NILOA national survey of provosts, which reported increased faculty engagement in assessment as the most pressing challenge to assessment progress on their campuses. Hutchings (2010a) cited four primary obstacles to greater involvement of faculty in the assessment process:

- the language of assessment was not user-friendly and was perceived by many faculty to be part of a ‘management culture;’
- faculty, especially those educated during the Boomer era, were simply not trained in assessment;
- assessment was undervalued or invisible in the reward structures, particularly tenure and promotion criteria, of higher education;
- faculty had not seen significant evidence that assessment added value to evaluative processes already in place.

Manning (2011) noted succinctly, that those involved in assessment often found themselves in the unenviable position of “needing to motivate people who do not report to them and to do things they do not want to do and for no clear reward” (p. 16).

Yet equally prevalent across the literature was the notion that with careful planning and process design enabling faculty to see benefits, continuous program assessment and evaluation could be successfully embedded into departmental cultures in sustainable and effective ways (Dues et al., 2008; Boorstein & Knapp, 2005). Tagg (2007) suggested that if faculty adopted as a governing principle the notion that curricula were what students learned, rather than what faculty taught, a paradigm shift would ensue in which feedback loops for both faculty and students would become the central actions of curricular execution. In October 2008 at the Teagle-Spencer conference *How Can Student Learning Best Be Advanced: Achieving Systematic*

Improvement in Liberal Education, Bok again urged faculty to overcome clashes between the values they said they held dear and their actual behavior to form ‘a cult of continuous improvement’ (Lederman, 2008, Bok, 2008). In his address, Bok added that faculty members genuinely cared about what their students were learning and if confronted with meaningful data demonstrating shortcomings in student learning, they would be required to take action. A better understanding of faculty and administrator perceptions regarding assessment in community colleges could yield important insights for practice that would enable more effective institutionalization of outcomes-based practices toward such an end.

In contrast, Suskie (2004) argued that many faculty ascribed to Barr and Tagg’s ‘learning centered paradigm’ (Barr & Tagg,1995), in which students were more actively engaged in learning and faculty served primarily as mentors or guides to the learning process. Suskie also noted that within the learning paradigm, faculty needed and sought feedback to understand what worked (and did not) to maximize student learning. The literature on assessment of student learning outcomes demonstrated, Suskie contended, that, initially, faculty who were engaged in outcomes assessment activities determined the critical outcomes important to student learning, and whether or not standardized tests, portfolio development, benchmarks, case studies, or self-designed measures, for example, would be utilized to enable reliable measurement of outcomes.

Polumba and Banta (1999), Allen and Bresciani (2003), Ewell (2008), and Boorstein and Knapp (2005) all noted that faculty in the disciplines determined the kinds of knowledge indicative of programmatic learning, the specific responses that indicated that learning had occurred, and the means by which feedback was used to align

teaching with programmatic values. In the liberal arts and general education, key literacies and skills required by all graduates were determined similarly and appropriate measures designated. Boorstein and Knapp (2005) wrote that for liberal arts and general education faculty, this process became ‘messy,’ as faculty members were often unwilling to conceptualize courses in terms of learning outcomes rather than content coverage. Faculty at each institution determined the benchmarks and outcomes appropriate to each discipline or general education outcome and then communicated effectively the meanings of those outcomes to colleagues, students, and internal and external stakeholders of the institution (Allen & Bresciani, 2003; Bok, 2006). As external stakeholders became more savvy to internal assessment processes, institutional successes became a function of what was discovered and utilized in the assessment process.

Dues et al. (2008) and Volkwein (2007) noted that the impact of assessment activities on faculty workload determined the sustainability of any assessment process and the implementation of improvements to those processes. To garner faculty support, a philosophy of simplicity and clarity that was focused on the value and relevance of information gathered via the assessment and evaluation process was recommended in multiple cases in the literature (Dues et al., 2008; Brill, 2008). Brill (2008) added that concise and pervasive language presented to faculty negated opportunities for potential ‘faculty resisters’ – “excessive language will give fodder to resisters, who will take any opportunity to sabotage change initiatives, especially those that affect work priorities” (p. 12). Bok (2006) noted the importance of countering fear-based faculty resistance by ensuring that non-punitive environments surrounded the use of assessment results,

especially reassurance that no in-job loss or loss of institutional prestige based on inappropriate standards would result. Welsh and Metcalf (2003) noted four primary variables that affected faculty support for assessment activities: the degree of autonomy from external drivers and controls; institutional commitment to assessment initiatives and the depth of implementation; a student-learning-based rather than resource-based definition of assessment; and the level of faculty involvement in the process.

In 2010, Hutchings released her essay entitled *Opening Doors to Faculty Involvement in Assessment* and articulated six cogent themes to increase faculty engagement in the assessment process. These six themes called for building assessment practices around faculty members' ongoing work of teaching and learning, centering increased faculty development efforts on assessment topics, providing assessment training for graduate students as part of their training, reframing assessment work as a scholarly endeavor, fostering campus-wide conversations on assessment and use of assessment data, and involving students more directly in the assessment process.

Academic Administrator (AO) Roles and Beliefs

While Welsh and Metcalf (2003) reported that academic administrators (AOs) demonstrated greater support for assessment activities than did faculty, they cited Polumba and Banta (1999), Amey (1999), and Ewell (1989), in arguing that lack of sustained administrative leadership attention, lack of incentives encouraging faculty participation, and lack of use of results were observed barriers to effective outcome assessment efforts.

Polumba and Banta (1999) wrote that academic administrators must not only be content experts in outcomes assessment, but must also demonstrate genuine

commitment to assessment, allowing faculty members time to understand, embrace, and implement their findings in risk-free environments, while constantly asking questions and providing the support necessary to create organizational climates that ensured success. The notions of endorsement and encouragement of assessment efforts as a critical role for academic officers was affirmed by Brill (2008), who wrote that placing assessment within the framework of an institution's strategic plan and maintaining its place there ensured successful efforts. Wegner (2008) added that higher education administrators must focus institutional intellectual capabilities that addressed the organizational responsibility to optimize student learning, while Hadden and Davies (2002) called for transparency and communication regarding the importance, purpose, and use of assessment data.

Empowerment of faculty leadership in the student learning outcomes assessment process and overcoming faculty resistance, Polumba and Banta (1999) noted, were critical factors in the long-term institutionalization of any assessment initiative. As stated previously, without a critical mass of faculty engagement, any attempt at assessment of student learning was likely to fail. Thus, the ability to generate consensus and overcome faculty resistance was a critical skill for AOs in any assessment initiative. Administrators cannot simply institute institutional effectiveness processes in isolation and expect spontaneous support from faculty, Welsh and Metcalf (2003) posited, adding that academic administrators, "must wrestle with gaining faculty interest and support without creating unwanted administrative duties" (p.462).

Ideally, partnerships between faculty and academic administration were formed, which aided in developing assessment efforts that directly improved student learning

and informed teaching (Hadden & Davies, 2002). Hadden and Davies also argued that administrative leadership was demonstrated through reassignment of faculty time for training, development of assessment projects, and dissemination of results, as well as through resource allocation and institutional decisions that reinforced and rewarded assessment efforts.

In contrast to faculty members, argued Welsh et al. (2003), administrators placed higher value on depth of assessment implementation, feedback loops, and continuous improvement achieved by loop closing. Welsh and Metcalf (2003) noted that academic administrators were more sensitive to concerns of external stakeholders due to more frequent contact with them, and were often placed “between societal pressures for change and the faculty’s wish to maintain the academy in the form they have known” (p. 447). Tensions between faculty and administration were well documented throughout the literature, and this facet of the academy also presented a significant barrier for academic administrators to overcome.

Finally, Birnbaum (as cited in Welsh et al., 2003) asserted that administrators at two-year IHEs may have an advantage over those of four-year IHEs in implementing outcomes-based assessment efforts due to the more hierarchical nature of their organizational structures. Welsh and Metcalf (2003) supported this argument by stating that it may be easier to generate faculty attention and support for assessment activities in environments such as community colleges, where faculty were less aligned to disciplines and more aligned to the institution. As Banta (1997) stated, administrators should strive to create organizational environments and cultures that were respectful, supportive, and enabling since such environments were the most effective in supporting

successful assessment efforts. Finally, Haviland (2009) noted that faculty would engage, albeit warily, in assessment of student learning activities if strong leadership for the effort was provided; thus, the onus for creating a culture of assessment and improvement began with administrators leading the way and providing the means for faculty to engage.

The Role of Institutional Mission and Vision

Under the best of conditions, Volkwein (2003, 2010a, 2010b) noted, an institution's mission statement made clear what the organization planned and hoped to do: its purposes, goals, and objectives. These broad concepts, Volkwein argued, translated into results achieved through planning and resource allocations, realizing institutional ideals via instructional and co-curricular programming intended to impact student learning and development. However, what actually happened in the reality of delivering instruction and what was expressed in an institution's mission often differed greatly (Boorstein & Knapp, 2005); in some cases the two channels were separate and rarely engaged, while in other cases there were direct conflicts. Priddy (2007) wrote that mission and vision statements were public articulations of what institutions valued, and institutions that intentionally and persistently developed deep institutional commitments to and shared responsibilities for improved student learning and educational effectiveness also achieved educational quality.

Boorstein and Knapp (2005) also posited that assessment of student learning outcomes often served as a bridge between student learning and accountability, and aided in creating coherent organizational cultures of evidence within organizations focused on student learning. Shupe (2007) noted that colleges and universities that developed the capacity to focus on student learning outcomes were likely to significantly

improve organizational function. Volkwein (2003, 2010a, 2010b) argued that while institutional effectiveness could be demonstrated in multiple ways, student outcomes assessment directly and congruently linked to institutional mission, goals, and objectives provided strong performance evidence. In effect, Volkwein, added, assessment became a lever for increasing institutional effectiveness and efficiency.

Defining Learning Outcomes Assessment

Angelo (1995) defined assessment of student learning outcomes as the ongoing process of understanding and improving student learning. Polumba and Banta (1999), affirmed Angelo's early definition, and wrote that the essence of student assessment in higher education was the systematic collection, review, and use of educational program data to inform improvements in student learning and development. Ewell defined student learning outcomes as "particular levels of knowledge, skills, and abilities that a student has attained at the end (or as a result) of his or her engagement in a particular set of collegiate experiences" (2001, pp. 5-6).

In 2003, Volkwein added specificity to the definition by noting that student outcomes assessment was "the act of assembling and analyzing both qualitative and quantitative teaching and learning outcomes evidence in order to examine their congruence with an institution's stated purposes and educational objectives" (p. 4). According to Suskie (2004), student learning outcomes assessment involved explicit and public expectations; the setting of appropriate criteria and high standards for learning quality; systematic gathering, analyzing, and interpretation of evidence to determine how well performance matched expectations and standards; and used the resulting information to document, explain, and improve performance (Suskie, 2004). Huba and Freed set the most often used definition in 2000, when they noted:

> Assessment is the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with this knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve subsequent learning (p. 8).

Overall, any program designed to optimize learning had defined, agreed-upon measures of progress that 1) made sense to all stakeholders and 2) were used to improve learning results (Wegner, 2008). For the purposes of this study, assessment of student learning outcomes was defined as the ongoing, systematic, and intentional collection, review, and use of educational program data to inform improvements in student learning and development.

Characteristics of Effective ASLO Initiatives

As has been documented to this point, assessment of student learning outcomes was a major issue for all higher education institutions throughout the first decade of the 21st century. Assessment of student learning was required for regional accreditation; Federal and state governmental leaders called resoundingly for it; national associations completed studies, held meetings, and attempted to build consensus surrounding how best to accomplish it; a plethora of material, articles, books, presentations, reports, and proceedings were published; and scholarly articles across the literature documented its history and attempted to define the characteristics of successful programs. Despite this abundance of work, no single model or set of criteria had effectively captured a concise vision of effective assessment of student learning outcomes. Ultimately, it was not the assessment activities or the data gathered that was most important, it was how that information was used to improve student learning that had meaning (Seybert, 2002; Banta, 2004).

Principles of Good Practice

With support from the Fund for the Improvement of Postsecondary Education (FIPSE) and Exxon, the then American Association of Higher Education (AAHE) Assessment Forum was convened in the early 1990s and formed an Assessment Leadership Council comprised of 12 'practitioner-students of assessment' (Astin et al., 1991,1996) These practitioner-students examined research and development issues such as training materials, the relationship between assessment and accreditation, and the role of assessment in pre-collegiate reform (Astin et al., 1991,1996). This group created a seminal document, *Principles of Good Practice for Assessing Student Learning*, which noted nine key premises that formed the foundation of the scholarship of assessment. The authors wrote that the core value behind the document was the importance of improving student learning and outlined their vision for high expectations, active learning, coherent curricula, and effective out-of-class opportunities[1] (Astin et al., 1991, 1996), outcomes not unlike those outlined in the AAC&U LEAP initiative nearly a decade later.

Volkwein (2003, 2010a, 2010b) noted that student learning and development were at the core of the higher education mission, making assessment of learning and teaching an essential value. Like Astin, Banta, Ewell, Suskie, and others previously mentioned, Volkwein noted that by its nature, effective assessment was driven by

[1]AAHE's Nine Key Principles of Good Practice for Assessing Student Learning were articulated as: assessment of student learning begins with educational values; assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time; assessment works best when the programs it seeks to improve have clear, explicitly stated purposes; assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes; assessment works best when it is ongoing not episodic; assessment fosters wider improvement when representatives from across the educational community are involved; assessment makes a difference when it begins with issues of use and illuminates questions that people really care about; assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change; and through assessment, educators meet responsibilities to students and to the public.

explicit goals, based on evidence, and oriented toward improvement. He identified three essential questions, quite similar to O'Banion's (1997) learning college questions, that formed the central premises of assessment of student learning: 1) what *should* students learn and how do we expect them to grow, 2) what *do* students learn and how do they actually grow, and 3) what *should* be done to facilitate and enhance that learning and growth? These essential questions, when placed into institutional context, Volkwein (2003) argued, formed a teaching-learning-assessment-outcomes feedback loop, in which teaching influenced learning, learning influenced outcomes, and assessment of outcomes influenced/improved teaching, and ultimately, learning (p. 7).

Key questions to consider when establishing or evaluating assessment programs were also put forth by Huba and Freed in 2000, as a part of their seminal work, *Learner-Centered Assessment on College Campuses* (Appendix A). The questions were drawn, in part, from the AAHE Assessment Forum's *Principle*s and the Commission on Institutions of Higher Education of the North Central Association's (NCA's) *Hallmarks of Successful Programs to Assess Student Academic Achievement* included in the 1994-1996 NCA *Handbook of Accreditation* (Huba & Freed, 2000). Huba and Freed's questions were well-aligned to the seminal hallmarks noted by AAHE and were also closely aligned to the 2003 Council of Regional Accrediting Commissions' (C-RAC) principles for good practice adopted not only by NCA, but also by SACS. Appendix B provides a matrix comparison of the AAHE, Huba and Freed, C-RAC, and Suskie constructs of good practice in evaluating or establishing assessment programs. Since Banta's characteristics incorporated primarily the regional accreditation mandates, this researcher chose to utilize the criteria identified by Huba and Freed, which were more

closely aligned to AAHE, C-RAC, and Suskie, as a basis for the survey instruments in this study.

Evolution of ASLO

Planning, implementation, improvement, and sustainability formed the primary phases of effective assessment programs according to Banta, who identified a set of 17 key principles as hallmarks of such programs (Banta, 2004). Effective assessment began with good planning, Banta (2004) wrote, and included involvement of all stakeholders from the outset; good timing (it started when the need was recognized); a clearly articulated, purpose-driven, written plan tied to a set of larger conditions promoting change; and assessment approaches based on clear, explicit objectives. Careful attention to implementation of the plan was the next step, Banta asserted, and comprised knowledgeable, effective leadership; validation that assessment was essential to learning and therefore the responsibility of all; faculty and staff development regarding implementation and use of findings; assessment responsibilities located at the unit level; multiple measures to maximize reliability and validity; and assessed processes as well as outcomes. Finally, Banta noted that the improvement and sustainability phase was marked by credible evidence of organizational and learning effectiveness; continuous use of data for improvement; demonstrated accountability to external and internal stakeholders; an ongoing, rather than episodic (i.e., once-every-reaccreditation-cycle) expectation; and an incorporation of ongoing assessment and evaluation of the assessment process itself (Banta, 2004).

Suskie (2004) elaborated on Banta's phase characteristics and noted that assessment activities needed to conform to six principles of good practice, regardless of how assessments were made. Suskie's six principles were that 'good assessments'

provided useful information; that the information was reasonably accurate and truthful; were fair to students; were ethical and protected the privacy and dignity of those involved; were systematic; and were cost-effective, yielding value in proportion to time and expense incurred (Suskie, 2004).

Current Efforts in ASLO

By 2008, the variation in student learning outcome assessments was so great that The National Institute for Learning Outcomes Assessment (NILOA) was formed to assist institutions of higher education in discovering and adopting promising assessment practices, and served as a clearinghouse for assessment scholarship (NILOA, 2011). Based at the University of Illinois and Indiana University, and under the direction of co-principal investigators Stan Ikenberry and George Kuh, as well as senior scholar Peter Ewell, NILOA had as its vision,

> to discover and disseminate ways that academic programs and institutions can productively use assessment data internally to inform and strengthen undergraduate education, and externally to communicate with policy makers, families and other stakeholders. (NILOA, 2011, n.p.)

In 2009, NILOA conducted its first national survey of provosts and campus assessment efforts, during which it found that academic administrators considered involving faculty in assessment one of their greatest challenges (Lederman, 2010). The organization also commissioned papers focused on ASLO topics, analyzed institutional websites and those of organizations engaged in assessment-related efforts, interviewed key respondents, and developed instructive case studies of promising practices in collegiate learning assessment (NILOA, 2011).

One 2010 NILOA commissioned paper by Pat Hutchings, *Opening Doors to Faculty Involvement in Assessment*, provided seminal work on the state of ASLO and

received national attention (Lederman, 2010). In this work and a subsequent concept paper for the Western Association of Schools and Colleges, Hutchings validated prior contentions regarding obstacles to effective ASLO efforts – faculty involvement issues, accountability concerns, rhetoric garnered from the fields of business and education, and unclear benefits to students and faculty – but most importantly framed six recommendations to improve faculty involvement (Hutchings, 2010a, 2010b) in the assessment process. Those recommendations, which served as the basis for the final research and survey questions in the present study, were that higher education institutions:

- build assessment into the institution's ongoing work of teaching and learning,
- create space and time for assessment issues in ongoing faculty development,
- educate graduate students on the value and meaning of ASLO as part of their graduate training,
- create incentives and rewards for ASLO that reframe assessment efforts as scholarly endeavors,
- create campus opportunities for constructive dialogue focused on assessment (citing the Harvard Assessment Seminars of the 1990's), and
- involve students, including student self-assessment of learning, in ASLO efforts (Hutchings, 2010).

These recommendations, like those made by Angelo (2009) a decade earlier, point to creating cultures of organizational transformation based on shared trust, mutually acceptable language and framing of ASLO, and institutional vision for continuous improvement.

Summary

Since the mid-1980s, higher education stakeholders have increasingly called for cultures of evidence to document student learning. Educational policies and practices

that built faculty trust in the multiple roles of assessment, and aided AOs in restoring public confidence in the measures used, served as potential answers to these persistent higher education accountability questions. This literature review provided a context and rationale from which to understand the need for research on faculty and AO beliefs related to student learning outcomes assessment, and to situate student learning outcomes assessment within the broader landscape of higher education accountability.

Differences between assessment for excellence and assessment for accountability were articulated, along with a brief history of the movement toward higher education accountability and assessment, including critical studies and reports, an overview of the assessment of student learning outcomes movement, and a discussion of the common instruments in use (and controversies at play). Also detailed were the roles of regional accrediting agencies, the states, faculty, AOs, and institutional mission; a summary of the literature on developing cultures of evidence and assessment; and the evolution of assessment of student learning outcomes, including definitions, characteristics of effective programs, and the current state of assessment of student learning outcomes.

Chapter 3, which follows, presents the research methodology of the current study. Details and descriptions of the research questions and hypotheses that framed the study, the research sample, site context, data collection procedures, and statistical analyses used to evaluate data are provided within Chapter 3.

CHAPTER 3
RESEARCH DESIGN AND METHODOLOGY

The purpose of this study was to examine the differences between faculty and academic administrator (AO) beliefs regarding the value that assessment of student learning outcomes added to the improvement of student learning at a southeastern community college. Specifically, the study sought to examine whether or not faculty and AOs and at this college believed that assessment of student learning outcomes improved student learning and teaching. Chapter 3 details the methodology used to accomplish the research study and provides a review of the research problem and purpose, research questions and null hypotheses, research design including independent and dependent variables, instrumentation (including instrumentation juries), sampling and populations, data collection procedures, and data analysis.

The single-case research framework was utilized to examine the College as a representative example of a best practice institution in the assessment of student learning outcomes. Given that individual faculty, locus of faculty teaching assignments Associate of Arts (AA) versus career and technical (AS/AAS), AOs, locus of AO supervisory assignments, and length of involvement in assessment for both groups served as additional units of analysis, the design may be considered as an embedded single case study design (Yin, 2003). Yin (2003) argued that case studies informed institutional decision-making and identified relationships in complex organizational settings including those in higher education (Yin, 2003). The results of this case study could provide community college administrators and faculty with an understanding of the institutional human factors required to support and sustain effective assessment of student learning outcomes programs.

Problem and Purpose

In 2006, the Spellings Commission recommended that institutions of higher education (IHEs) measure student learning using quality assessment data and that the results of those learning assessments, including value-added metrics demonstrating student learning gains over time, be aggregated and made public (Banta & Pike, 2007). At that time, assessment of student learning outcomes practices were inconsistent across American IHEs, as many institutions and programs were unable to respond to questions about what their students were learning. By 2008, the variation in student learning outcome assessments was so great that the National Institute for Learning Outcomes Assessment (NILOA) was formed to assist IHEs in discovering and adopting promising assessment practices (NILOA, 2011) and serve as a clearinghouse for assessment scholarship.

Understanding beliefs about assessment held by faculty and AOs at the college studied would provide insights, best practice models, or effective implementation strategies for other community colleges. In addition, understanding differences in beliefs between faculty members and AOs could also reduce barriers to embedding assessment of student learning outcomes as a means of continuous improvement of student learning in similar institutions. Consistencies and patterns of beliefs that emerged from such an institution could also provide demonstrated success strategies informing institutional, system, or statewide formation of common benchmarks for assessment of student learning outcomes in other areas of the country. Such information could provide institutions less far along in the process of embedding student learning outcomes assessment into their organizational cultures with a resource from which to cost-effectively implement such initiatives.

Research Questions and Hypotheses

This study examined differences in beliefs regarding assessment of student learning outcomes (ASLO) held by full-time faculty and academic administrators at a southeastern community college. Specifically, the study sought to examine whether or not full-time faculty and AOs in this college believed that assessment of student learning outcomes improved student learning and improved teaching.

To determine overall beliefs regarding the value of ASLO at the institution studied, the researcher examined beliefs held by both full-time faculty and administrators regarding the value of ASLO, beliefs regarding the use of ASLO, and beliefs regarding impact of ASLO on teaching and learning.

In addition to the primary research question (RQ) stated above, the following 13 questions were also of concern. Research Questions 1-4 focused on faculty and academic administrator beliefs held regarding the *value* of ASLO, and were as follows.

RQ1. Were there differences in the beliefs held by full-time faculty and AOs regarding the value of ASLO?

RQ2. Was there a difference in beliefs held regarding the value of ASLO for either full-time faculty or AOs based on the locus of their program responsibility, e.g., did beliefs regarding the value of ASLO differ between full-time faculty teaching in or administrators supervising Associate of Arts (AA) or Associate of Science/Associate of Applied Science (AS/AAS) programs, or those teaching in both AA and AS/AAS programs?

RQ3. Did longevity at the institution cause a difference in beliefs held regarding the value of ASLO for either full-time faculty or AOs, e.g., did the number of years full-time faculty had been teaching at the college or that administrators had been working at the college related to differences in beliefs regarding the value of ASLO?

RQ4. Did the number of years full-time faculty or AOs had been involved in assessment activities cause a difference in beliefs held regarding the value of ASLO?

Research Questions 5-8 involved faculty and academic administrator beliefs held regarding the *use* of ALSO, and comprised the following.

RQ5. Were there differences in the beliefs of AOs and full-time faculty regarding the use of assessment of student learning outcomes?

RQ6. Was there a difference in beliefs held regarding the use of ASLO for either full-time faculty or AOs based on the locus of their program responsibility, e.g., did beliefs regarding the use of ASLO differ between full-time faculty teaching in or administrators supervising AA or AS/AAS programs, or those teaching in both AA and AS/AAS programs?

RQ7. Did longevity at the institution cause a difference in beliefs held regarding the use of ASLO for either full-time faculty or AOs, e.g., did the number of years full-time faculty had been teaching at the college or that administrators had been working at the college related to differences in beliefs regarding the use of ASLO?

RQ8. Did the number of years full-time faculty or AOs had been involved in assessment activities cause a difference in beliefs held regarding the use of ASLO?

Research Questions 9-10 explored faculty and academic administrator beliefs in the impact that ASLO had on teaching and learning.

RQ9. Did full-time faculty members believe that their use of assessment of student learning outcomes informed their teaching? Did AOs believe that the use of assessment of student learning outcomes informed teaching at the college?

RQ10. Did full-time faculty members believe that their use of assessment of student learning outcomes improved student learning? Did AOs believe that the use of assessment of student learning outcomes improved student learning at the college?

Finally, Research Questions 11-13, explored through multiple response, open-ended questions and qualitative research methods, focused on definitions of ASLO, influential individuals in the ASLO process, and improvement factors in the ASLO effort.

RQ11. What themes were present in AO and full-time faculty definitions of assessment of student learning outcomes? Did the themes of assessment of student learning outcomes definitions espoused by full-time faculty across the college vary by division?

RQ12. Who did AOs and faculty believe were the influential individuals in the ASLO effort on this particular campus? Were there differences in beliefs between AOs and faculty regarding these influential individuals?

RQ13. What factors did AOs and faculty believe would contribute significantly to the improvement of ASLO efforts at this college? Did the factors valued by AOs differ from those of faculty?

To answer questions 1-10, the following null hypotheses were examined via the ASLOB quantitative survey instrument. Again, these questions were clustered using primary groupings of beliefs regarding the value of, use of, and impact on teaching and learning of ASLO at this college. To determine differences in beliefs regarding the value of ASLO, the following null hypotheses were articulated.

$H_{01:}$ There was no significant difference in beliefs of AOs and full-time faculty regarding the value of assessment of student learning outcomes.

$H_{02A:}$ There was no significant difference in beliefs regarding the value of assessment of student learning outcomes between full-time faculty teaching in AS and AA programs, or those teaching in both AA and AS programs.

$H_{02B:}$ There was no significant difference in beliefs regarding the value of assessment of student learning outcomes between AOs supervising departments in AS and AA programs, or those supervising both AA and AS programs.

$H_{03A:}$ The number of years faculty had been teaching at the college resulted in no significant difference in beliefs held regarding the value assessment of student learning outcomes.

$H_{03B:}$ The number of years AOs had worked at the college resulted in no significant difference in beliefs held regarding the value of assessment of student learning outcomes.

$H_{04A:}$ The number of years faculty had been involved in assessment resulted in no significant difference in beliefs held regarding the value assessment of student learning outcomes.

$H_{04B:}$ The number of years AOs had been involved in assessment resulted in no significant difference in their beliefs regarding the value of assessment of student learning outcomes.

Similarly, to determine differences in beliefs held regarding the use of ASLO, the following null hypotheses were determined.

$H_{05:}$ There was no significant difference in beliefs of AOs and full-time faculty regarding the use of assessment of student learning outcomes.

$H_{06A:}$ There was no significant difference in the beliefs regarding the use of assessment of student learning outcomes between full-time faculty teaching in AS and AA programs, or those teaching in across both AA and AS programs.

$H_{06B:}$ There was no significant difference in beliefs regarding the use of assessment of student learning outcomes between AOs supervising departments in AS and AA programs, or those supervising both AA and AS programs.

$H_{07A:}$ The number of years faculty had been teaching at the college resulted in no significant difference in beliefs held regarding the use of assessment of student learning outcomes.

$H_{07B:}$ The number of years AOs had worked at the college resulted in no significant difference in beliefs held regarding the use of assessment of student learning outcomes.

$H_{08A:}$ The number of years faculty had been involved in assessment resulted in no significant difference in beliefs held regarding the use of assessment of student learning outcomes.

$H_{08B:}$ The number of years AOs had been involved in assessment resulted in no significant difference in beliefs regarding the use of assessment of student learning outcomes.

Null hypotheses regarding the impact of ALSO on teaching and learning were stated as follows.

$H_{09A:}$ There was no significant difference in beliefs held by full-time faculty members teaching in AA, AS/AAS, or both programs regarding the use of assessment of student learning outcomes to inform teaching.

$H_{09B:}$ There was no significant difference in beliefs held by AOs supervising AA, AS/AAS, or both programs regarding the use of assessment of student learning outcomes to inform teaching.

$H_{010A:}$ There was no significant difference in beliefs held by full-time faculty members teaching in AA, AS/AAS, or both programs regarding the use of assessment of student learning outcomes to improve student learning.

$H_{010B:}$ There was no significant difference in beliefs held by AOs supervising AA, AS/AAS, or both programs regarding the use of assessment of student learning outcomes to improve student learning.

To examine themes of assessment, champions of the ASLO process, and factors contributing to improvement of ASLO at the college studied, the following null hypotheses were identified.

$H_{011:}$ There was no significant difference in definitions of ASLO between full-time and AOs.

$H_{012:}$ There were no significant differences in beliefs between full-time faculty and AOs regarding the champions of the ASLO process at the campus studied.

$H_{013:}$ There was no significant difference in beliefs between full-time faculty and AOs regarding the factors that contributed significantly to the improvement of ASLO efforts at this college.

Research Design

The methodology for the study was informed by the work of Creswell (2009), Creswell and Plano-Clark (2006, 2007), Glesne (2006), Patton (1987), Spradley (1979), and Yin (2003). Yin (2003) described case study methodology as an all-encompassing, comprehensive research strategy and posited a definition of case studies as empirical inquiries that investigated contemporary phenomena within real-life contexts, particularly those with blurred boundaries between the phenomena and context (p. 13). An embedded, single-case research design was chosen for this study in an effort to deliberately explore the contextual conditions, organizational, divisional, and individual, that added value to assessment of student learning outcomes efforts and the improvement of student learning at the college studied.

An Internet-delivered survey instrument based upon Huba and Freed's (2000) key questions framework (Appendix A), including quantitative, multiple-response, and open-ended qualitative questions, was adapted from the work of Rothgeb (2008) to answer the research questions previously articulated. Multiple response questions and open-

ended questions were utilized to triangulate quantitative results and delve more deeply into factors contributing to the assessment climate at the institution studied.

Quantitative Study

Fink (2008) noted that surveys comprise the best data collection method available when information was needed directly from individuals regarding what they believed, knew, or thought about a given topic. Further, given faculty and AO access to computers, and the cost-effectiveness of Internet-based survey techniques, an on-line, survey instrument titled the Assessment of Student Learning Outcomes Beliefs (ASLOB) was developed, juried, and administered by the researcher to address the null hypotheses (Appendix C for a sample of the ASLOB instrument). Two composite scales were developed from ASLOB data: an Assessment Value (AV) composite score, utilizing data from Survey Questions 8-11, 16-21, 24-28, and 30-31, and an Assessment Use (AU) composite score, comprising data from Survey Questions 12-15 and 29.

Qualitative Study

In mixed methods studies, data can be clarified and explored in more detail through open-ended, qualitatively oriented responses (Creswell, 2009; Creswell & Plano-Clark, 2006). Toward this end, the researcher incorporated several multiple response and open-ended questions into the ASLOB survey instrument to better understand the institutional conditions, administrative characteristics, and assessment of student learning initiatives at the college. Transcriptions of this qualitative data were subsequently coded thematically utilizing Spradley's (1979) model of domain analysis and Glaser's (1965) constant comparative method, to both substantiate quantitative findings and provide additional descriptive detail for the study (Creswell, 2009).

Independent and Dependent Variables

Composite AV and AU scale scores on the ASLOB served as dependent variables for the purposes of this study. Locus of assignment, associate of science technical (AS/AAS) versus associate of arts (AA) versus service in both areas; AO years of service in position; faculty years of teaching experience; and years of involvement in assessment activities served as independent (explanatory) variables.

Context and Site

In 2009-2010, nearly 1,200 public and independent community colleges provided inclusive, open-access education to nearly 12 million students, 43% percent of all undergraduates, including the majority of African-Americans and Latinos (American Association of Community Colleges [AACC], 2011; Strauss, 2009). These colleges had a robust history of providing access to the baccalaureate credential through associate's degree preparation and subsequent bachelor's degree completion via articulation, university center, and university extension models, as well as community college baccalaureate programs (McKinney & Morris, 2010; Floyd, 2006).

A 2010 American Association of Community Colleges (AACC) survey documented estimated enrollment growth in community colleges of nearly 17% between 2007 and 2009, from 6.8 to 8 million students (AACC, 2011). During the same period, the recessionary economic climate in the U.S. drove these college's primary funding sources, state and local legislatures, to cut postsecondary education budgets in response to deficits (Dembicki, 2011; AACC, 2011; Strauss, 2009; Fry, 2009). As low-cost, open-access providers, community colleges faced counter-cyclical enrollment spikes in recessionary times, which created even greater pressures on the colleges (Fry, 2009; Dembicki, 2011).

The present study was conducted at a public, urban, comprehensive, multi-campus community college that committed to the learning college concept in the mid-1990s (Chief Assessment Officer, personal communication, July 13, 2011). The concept of the learning college had as its focus the creation of organizational cultures that supported student learning through policies, programs, practices, and personnel (League for Innovation in the Community College, 2011). Learner-centered colleges were dedicated to hiring and recruiting staff committed to learners, creating professional development programs directed toward facilitation of student learning, developing core competencies and strategies to improve student learning outcomes and assessment of those outcomes, using information technology to improve student learning, and ensuring the success of underprepared students (League for Innovation in the Community College, 2011).

With accreditation from the Southern Association of Colleges and Schools (SACS), the institution studied was also required to embrace outcomes examination as a means of demonstrating institutional effectiveness. The college's strategic learning plan articulated an institutional intention to establish an organizational culture that effectively created maximized conditions for learning (Chief Assessment Officer, personal communication, July 13, 2011). This culture clearly specified learning outcomes and assessments that engaged students as responsible partners in the learning endeavor, statements that Maki (2010) described as 'anchors' for effective assessment in higher education institutions. These goals also required coordinated programs of learning rather than collections of courses, that students knew and embraced valid learning outcomes for every course and learning experience at the

college, articulation of discipline-specific and core competencies for each course delivered, assessment strategies that provided students with clear evidence of their mastery of learning outcomes, and practices that informed both faculty and the college-wide community (Chief Assessment Officer, personal communication, July 13, 2011).

The college's learning-centered history included large scale, data-supported, institutional efforts, participation in multiple national programs, and the development of internal structures aimed at student learning gains, persistence, and completion (Chief Assessment Officer, personal communication, July 13, 2011). Internal efforts included articulation and implementation of college-wide learning outcomes; a cross-functional learning evidence team, data team, learning council, and learning assessment committee; offices of institutional effectiveness, assessment, research, and the appointment of a chief assessment officer to whom these latter offices reported; and a well-developed faculty development office that had among its primary goals assessment activities (Chief Assessment Officer, personal communication, July 13, 2011).

According to the college's Chief Assessment Officer, these initiatives created an institutional culture in which assessment was considered a tool to promote faculty dialog regarding student learning goals and to build consensus regarding collective action to improve student learning (personal communication, July 13, 2011). The college's Board of Trustees recognized these efforts in 2011 through a faculty compensation plan that contained an institutional effectiveness component. This compensation initiative required that 90% of all academic programs have faculty-approved improvement plans based on learning assessment data in order for any faculty member to receive

institutional effectiveness compensation in addition to normal salary (Chief Assessment Officer, personal communication, July 13, 2011).

During 2010-2011, the college studied served approximately 65,000 students at seven campus or center locations across seven articulated Associate of Arts (AA) pre-majors, four non-articulated AA pre-majors, 30 AA transfer plans, and 103 Associate of Science/Associate of Applied Science (AS/AAS) degree and certificate programs (Chief Assessment Officer, personal communication, July 13, 2011). The college was staffed by nearly 3,000 employees in Fall 2010. Of these employees, 35 were noted as management-level academic administrators and 431 were full-time faculty, 71.7% of whom held master's degrees and 23.2% of whom held doctoral degrees.

Four distinct populations, AA faculty members, AS/AAS technical faculty members, faculty members serving in both programs, and academic administrators employed at the college were surveyed to complete this study. Specifically, an Internet-delivered, self-administered survey instrument, the ASLOB, that utilized both quantitative, multiple-response, and open-ended questions was developed and administered to complete the research study. A list of all full-time AA faculty, AS/AAS technical faculty, and academic administrators that noted e-mail address and employment category was provided to the researcher in collaboration with the institution's Chief Assessment Officer. Given that the cost efficiencies inherent in an Internet-based survey allowed for a significant broadcast of the survey instrument, all academic administrators, and all full-time tenured and non-tenured faculty of the College were invited to participate in this study.

Instrumentation

The literature on research design (Creswell, 2009; Sue & Ritter, 2007; Van Selm & Jankowski; 2006) verified that on-line, e-mail and web-based, survey instruments were increasingly used as a tool and platform for survey research. Van Selm and Jankowski added that e-mail and Internet access had reached nearly all engaged in higher education, thus these groups could be surveyed easily by electronic means. Umbach (2005) added that such surveys were comparatively inexpensive and that Internet data collection was fast and efficient. Commercially available Internet survey packages including on-line reporting features were available at low cost, so this method of administration and the web-based SurveyMonkey® platform were chosen by the researcher. Following this work, an on-line, self-administered ASLOB survey instrument (Appendix C) based on Huba and Freed's (2000) key questions for consideration when establishing assessment programs was adapted by the researcher from Rothgeb's (2008) earlier research to address the null hypotheses noted previously. Permission to modify and use Rothgeb's (2008) survey and frameworks was obtained (Appendix D).

Each survey consisted of four demographic questions related to, for faculty, primary departmental assignment, primary instructional audience (associate of arts versus career and technical), length of time teaching, and length of involvement in assessment efforts were posed. For AOs, four similar questions related to department(s) overseen, primary discipline(s) overseen, length of time in administrative position, and length of involvement in assessment efforts were posed.

Additional questions that were directly related to beliefs regarding student learning outcomes and were arranged to progress from those regarding personal practices to

those at the department and institution level followed. This progression allowed relationships of support or disparity to be revealed between individual beliefs and practices. Each of the questions was coded for response using a Likert-type scale ranging from one to five, with one being “strongly agree” and five being “strongly disagree.” Multiple response and open-ended questions were also utilized to more closely examine beliefs regarding the champions of assessment efforts and factors that participants believed would contribute to a more effective assessment climate at the college. Participants were asked to provide an open-ended response detailing their definition of assessment of student learning outcomes to ascertain levels of alignment in beliefs between faculty and AOs, and differences, if any, between loci of program responsibility (AA versus AS/AAS).

Creswell and Plano-Clark (2007) noted that the relation of components in mixed methods research designs could elaborate, enhance, illustrate, and clarify the results of one research method with the results of another. For this reason, the results of the qualitative portions of the ASLOB surveys provided open-ended opportunities to gather additional information regarding beliefs held regarding assessment of student learning outcomes that could be examined for themes or patterns, and triangulated back to the quantitative survey data.

Survey Juries

The ASLOB survey instrument was juried by three faculty members and three curriculum administrators at three community colleges in the southeastern U.S. Each juror was contacted by e-mail to request their assistance and provided with information for the on-line survey protocol and access to the on-line survey instruments in pilot form. After review of the on-line survey instrument, telephone interviews were conducted to

obtain additional comments. Feedback from these jurors, from members of the researcher's dissertation committee, and the researcher's collaborator at the institution of study, were used to assess the applicability of the survey and make improvements in the instrument prior to administration. It was important to note that open-ended responses to several questions, a descriptive open-ended question allowing respondents to provide a definition of ASLO, and a multiple response open-ended question regarding resources were added to the ASLOB instrument at this point, following Dillman, Smyth, and Christian's (2009) contention that such allowed for gathering of rich, detailed, qualitative information from respondents without undue influence.

Data Collection Procedures

In a manner consistent with the work of Creswell (2009) and Dillman et al. (2009), the ASLOB survey was administered to all AOs and full-time faculty employed at the institution studied (n=483) using a multiple contact, varied stimulus protocol to maximize response rates. As Dillman et al. (2009), noted, "sending multiple contacts to potential web survey respondents is the most effective way to increase response rates" and "varying the content of the e-mails both appeals in different ways to respondents and reduces the likelihood that all of the messages will be sorted out by spam filters" (p. 275). Toward this end, an initial invitation was sent to all potential participants at the institution, followed by two subsequent reminder appeals at two week intervals (Appendix E). Further, in an effort to further maximize response rates, the researcher's collaborator at the institution of study arranged for the e-mail used in ASLOB administration to be exempted from the college's spam filters for the duration of the field administration period.

An invitation explaining the research, required Institutional Review Board notifications, survey instructions, and a link to the on-line ASLOB instrument was sent to all faculty and AOs of the college via e-mail (Appendix E). A second e-mail reminder asking for participation, providing a link to the instrument, and copy of the original invitation was e-mailed to all non-respondents two weeks later (Appendix E). A third, and final, follow-up contact to all non-respondents was made four weeks post survey, with repeated instructions, access link to the ASLOB instrument, and a copy of the original invitation (Appendix E). The overall response rate obtained through these efforts was 25.1%; with 21.1% of full-time faculty and 42.7% of administrators and responding. The 21.1% full-time faculty response rate was important to note and indicated potential non-response bias in the study.

A number of similar studies were examined to ensure that the response rate in this study was acceptable. In 2007, Van der Kaay studied faculty perceptions of technology at five Florida community colleges and obtained an overall response rate of 20.5% (n=246) from a total population sample of 1,199 faculty members at those institutions. Shih and Fan (2009), in their meta-analysis comparing response rates in 35 e-mail and paper surveys from 1992 to 2006, noted an unweighted average e-mail survey response rate of 33%. According to Shih and Fan (2009), surveys of college faculty and administrators examined in that study generated response rates that ranged from a low of 6% to a high of 34%. Procopio (2010) surveyed faculty and administrators at 38 institutions accredited by the Southern Association of Colleges and Schools (SACS) to examine differences in perceptions of organizational culture related to accreditation. Procopio's 2010 survey resulted in a response rate of 13.7%, which she noted was not

as high as those of traditional survey methodologies, but also not unusual for an Internet survey and acceptable. Given this range of response rates, it was determined that an overall response rate of 25-30% would be considered acceptable for this this study and this level was achieved with an overall response rate of 25.1%.

Data Analysis

Multiple steps were taken to analyze data for both the quantitative and qualitative portions of the study. Field administration for data collection was conducted for the on-line surveys via SurveyMonkey® and data was exported first into Microsoft™ Excel® and then into SPSS-PASW Statistics 18®, a commercially-available statistical software tool, for additional statistical analyses and tests. Descriptive statistics, analysis of means, T tests, Mann-Whitney U tests of frequency distributions, and analysis of variance (ANOVA) were utilized to determine significant differences in dependent variables across groups and determine the answers to the null hypotheses previously described. A significance level, or alpha, of 0.05 ($p<0.05$) was used to evaluate null hypothesis for all statistical analyses.

Patton (1987) explained qualitative analysis as “the process of bringing order to the data, organizing what is there into patterns, categories, and basic descriptive units”, adding that “interpretation involves attaching meaning and significance to the analysis, explaining descriptive patterns and looking for relationships and linkages among descriptive dimensions” (p. 144). Qualitative data were coded utilizing Spradley’s (1979) cultural domain method and its X/Y technique of universal semantic relationships, as well as Glaser’s (1965) Constant Comparative Method (CCM) of data analysis to identify emergent themes, patterns, constructs, or phenomena. “Coding is the process

of focusing a mass amount of free-form data with the goal of empirically illuminating answers to research questions," according to Hahn (2008, p. 5), and "moves in a stepwise fashion progressively from unsorted data to the development of more refined categories, themes, and concepts."

All comments were subjected to three rounds such stepwise, progressive, thematic coding to analyze responses. Round one consisted of initial, or open, coding in which coding worksheets were prepared for each semantic relationship using Microsoft™ Excel® software and appropriate included terms were clustered in each worksheet. In round two of the coding process, first level coding results were reexamined to further focus and refine emergent categories. Finally, during the third round of coding the results of previous rounds were again reexamined to develop and consolidate highly refined themes. Results of all steps in the coding process were reviewed by an independent reader to ensure objectivity and validate the thematic clusters that emerged. The results of those analyses are reported in Chapter 4.

Limitations of the Study

It was generally accepted in the educational research community that all research methods possessed inherent limitations. According to Anderson, Anderson, and Arsenault (1998) these limiting factors may threaten the objectivity, validity, and generalizability of results, and may arise from inherent design limits or occur as a study evolves. Consistent with these cautions, the limitations for this study follow.

This study purposively examined the beliefs of faculty and AOs regarding the value of assessment of student learning outcomes at one southeastern community college. The study may be delimited due to the fact that it concerned only faculty and

AOs at one community college, which was accredited by SACS, and did not include similar institutions in the full region over which SACS has oversight, institutions in other accrediting regions, or institutions other than community colleges.

The study also assumed that participant answers were true representations of their beliefs. However, the beliefs profiled were those that participants were able and/or willing to articulate or those that gleaned during structured interviews. It was possible that many beliefs were not articulated either because faculty and AOs either did not possess the vocabulary to do so or because participants chose not to reveal them. The ASLOB survey instrument was completely anonymous, providing an opportunity for open and honest responses. The 21.1% full-time faculty response rate at the institution studied was also important to note and indicated a potential non-response bias in the study.

It was assumed that participants had a clear understanding of the phrase student learning outcome, and the differences between assessment for excellence and assessment for accountability. Therefore, some variation between survey responses may have occurred due to differences in participant definitions.

Strategies to Minimize Threats to Validity

Reliability refers to the extent that a measure was consistent and reproducible; reliability being a property of the data, not of the measurement instrument. Validity refers to the extent that a measure accurately measured what it was intended to measure; again, validity being a property of the data, not of the measurement instrument. Lincoln and Guba (1985) stated that: “Since there can be no validity without reliability (and thus no credibility without dependability), a demonstration of the former [validity] is sufficient to establish the latter [reliability]” (p. 316). Creswell (2009)

advocated use of a series of steps to ensure the validity of both the quantitative and qualitative portions of all mixed method studies; multiple steps were used in this study to minimize threats to overall validity of the case.

Triangulation of data sources was achieved by comparing data that resulted from the quantitative and qualitative portions of study, and through the use of multiple levels of examination. Repeated review of the qualitative data to test for validity of assertions by seeking confirming and disconfirming evidence, the analytic induction method in which deliberate search for disconfirming evidence and the deliberate framing of assertions to be tested against the data corpus (Erickson, 1986), also established evidentiary warrant for all assertions.

Within the quantitative portion of the study, analysis of survey response variances, significance levels, and standard deviations were examined to establish internal consistency and reliability of data obtained. Analyses of items in both the AV and AU composite scales were conducted and resulted in Cronbach's Alpha scores of .901 for the 17-item value composite and .733 for the five-item use composite, thus suggesting a high level of internal consistency for the measures. Rothgeb (2008) reported a Cronbach's Alpha of .897 for the 17-item value scale, additionally affirming a high level of internal consistency. Validity of the ASLOB survey instrument was also achieved by the use of peer jurors, as previously described in this section.

Researcher Sensitivity

Glesne (2006) reported that "participants have the right to expect that when they give you permission to observe and interview you will protect their confidence and preserve their anonymity" (p. 138). The purpose of anonymity was to protect participants from any unintended consequences that resulted from their participation in

the study. Anonymity was maintained in this study as data were primarily reported in aggregate and participants were not referred to by their names. The researcher took care to make use of fictitious names and/or modify descriptive characteristics to protect identities of research participants. Additionally, the researcher was careful not to pose questions that would reveal a participant's identity and any disclosed identifiers were redacted from or changed where and when appropriate. Participants were informed of the researcher's intent to protect their identity as part of the Informed Consent process and all identifying documents were destroyed upon completion of the study.

Summary

In Chapter 3, an overview of the research design and methodology for this study were provided, including a review of Research Questions and Null Hypotheses. The overall study design was detailed, as well as an overview of the survey instrument development and jury process, data collection procedures, and data analyses completed. A quantitative and qualitative, self-administered, on-line survey (ASLOB) was developed and juried by the researcher to achieve the goals of this study. All full-time faculty and AOs and at a southeastern community college were invited to participate in the quantitative portion of the research project. The results of these procedures and analyses will be provided in Chapter 4.

CHAPTER 4
RESULTS

This purpose of this study was to examine differences in beliefs regarding assessment of student learning outcomes (ASLO) held by full-time faculty and academic administrators (AOs) at a southeastern community college. Chapter 4 reports and discusses data collected as part of the study, both quantitative and qualitative.

Research Questions and Null Hypotheses

In addition to the primary research question (RQ) stated above, the following 13 questions were also of concern. Research Questions 1-4 focused on faculty and academic administrator beliefs held regarding the *value* of ASLO, and were as follows.

RQ1. Were there differences in the beliefs held by full-time faculty and AOs regarding the value of ASLO?

RQ2. Was there a difference in beliefs held regarding the value of ASLO for either full-time faculty or AOs based on the locus of their program responsibility, e.g., did beliefs regarding the value of ASLO differ between full-time faculty teaching in or administrators supervising Associate of Arts (AA) or Associate of Science/Associate of Applied Science (AS/AAS) programs, or those teaching in both AA and AS/AAS programs?

RQ3. Did longevity at the institution cause a difference in beliefs held regarding the value of ASLO for either full-time faculty or AOs, e.g., did the number of years full-time faculty had been teaching at the college or that administrators had been working at the college related to differences in beliefs regarding the value of ASLO?

RQ4. Did the number of years full-time faculty or AOs had been involved in assessment activities cause a difference in beliefs held regarding the value of ASLO?

Research Questions 5-8 involved faculty and academic administrator beliefs held regarding the *use* of ALSO, and comprised the following.

RQ5. Were there differences in the beliefs of AOs and full-time faculty regarding the use of assessment of student learning outcomes?

RQ6. Was there a difference in beliefs held regarding the use of ASLO for either full-time faculty or AOs based on the locus of their program responsibility, e.g., did beliefs regarding the use of ASLO differ between full-time faculty teaching in or administrators supervising AA or AS/AAS programs, or those teaching in both AA and AS/AAS programs?

RQ7. Did longevity at the institution cause a difference in beliefs held regarding the use of ASLO for either full-time faculty or AOs, e.g., did the number of years full-time faculty had been teaching at the college or that administrators had been working at the college related to differences in beliefs regarding the use of ASLO?

RQ8. Did the number of years full-time faculty or AOs had been involved in assessment activities cause a difference in beliefs held regarding the use of ASLO?

Research Questions 9-10 explored faculty and academic administrator beliefs in the impact that ASLO had on teaching and learning.

RQ9. Did full-time faculty members believe that their use of assessment of student learning outcomes informed their teaching? Did AOs believe that the use of assessment of student learning outcomes informed teaching at the college?

RQ10. Did full-time faculty members believe that their use of assessment of student learning outcomes improved student learning? Did AOs believe that the use of assessment of student learning outcomes improved student learning at the college?

Finally, Research Questions 11-13, explored through multiple response, open-ended survey questions and qualitative research methods, focused on definitions of ASLO, influential individuals in the ASLO process, and improvement factors in the ASLO effort.

RQ11. What themes were present in AO and full-time faculty definitions of assessment of student learning outcomes? Did the themes of assessment of student learning outcomes definitions espoused by full-time faculty across the college vary by division?

RQ12. Who did AOs and faculty believe were the influential individuals in the ASLO effort on this particular campus? Were there differences in beliefs between AOs and faculty regarding these influential individuals?

RQ13. What factors did AOs and faculty believe would contribute significantly to the improvement of ASLO efforts at this college? Did the factors valued by AOs differ from those of faculty?

To answer questions 1-10, the following null hypotheses were examined via the ASLOB quantitative survey instrument. Again, these questions were clustered using primary groupings of beliefs regarding the value of, use of, and impact on teaching and learning of ASLO at this college. To determine differences in beliefs regarding the value of ASLO, the following null hypotheses were articulated.

$H_{01:}$ There was no significant difference in beliefs of AOs and full-time faculty regarding the value of assessment of student learning outcomes.

$H_{02A:}$ There was no significant difference in beliefs regarding the value of assessment of student learning outcomes between full-time faculty teaching in AS and AA programs, or those teaching in both AA and AS programs.

$H_{02B:}$ There was no significant difference in beliefs regarding the value of assessment of student learning outcomes between AOs supervising departments in AS and AA programs, or those supervising both AA and AS programs.

$H_{03A:}$ The number of years faculty had been teaching at the college resulted in no significant difference in beliefs held regarding the value assessment of student learning outcomes.

$H_{03B:}$ The number of years AOs had worked at the college resulted in no significant difference in beliefs held regarding the value of assessment of student learning outcomes.

$H_{04A:}$ The number of years faculty had been involved in assessment resulted in no significant difference in beliefs held regarding the value assessment of student learning outcomes.

$H_{04B:}$ The number of years AOs had been involved in assessment resulted in significant difference in their beliefs regarding the value of assessment of student learning outcomes.

Similarly, to determine differences in beliefs held regarding the use of ASLO, the following null hypotheses were determined.

$H_{05:}$ There was no significant difference in beliefs of AOs and full-time faculty regarding the use of assessment of student learning outcomes.

$H_{06A:}$ There was no significant difference in the beliefs regarding the use of assessment of student learning outcomes between full-time faculty teaching in AS and AA programs, or those teaching in across both AA and AS programs.

$H_{06B:}$ There was no significant difference in beliefs regarding the use of assessment of student learning outcomes between AOs supervising departments in AS and AA programs, or those supervising both AA and AS programs.

$H_{07A:}$ The number of years faculty had been teaching at the college resulted in no significant difference in beliefs held regarding the use of assessment of student learning outcomes.

$H_{07B:}$ The number of years AOs had worked at the college resulted in no significant difference in beliefs held regarding the use of assessment of student learning outcomes.

$H_{08A:}$ The number of years faculty had been involved in assessment resulted in no significant difference in beliefs held regarding the use of assessment of student learning outcomes.

$H_{08B:}$ The number of years AOs had been involved in assessment resulted in no significant difference in beliefs regarding the use of assessment of student learning outcomes.

Null hypotheses regarding the impact of ALSO on teaching and learning were stated as follows.

$H_{09A:}$ There was no significant difference in beliefs held by full-time faculty members teaching in AA, AS/AAS, or both programs regarding the use of assessment of student learning outcomes to inform teaching.

$H_{09B:}$ There was no significant difference in beliefs held by AOs supervising AA, AS/AAS, or both programs regarding the use of assessment of student learning outcomes to inform teaching.

$H_{010A:}$ There was no significant difference in beliefs held by full-time faculty members teaching in AA, AS/AAS, or both programs regarding the use of assessment of student learning outcomes to improve student learning.

$H_{010B:}$ There was no significant difference in beliefs held by AOs supervising AA, AS/AAS, or both programs regarding the use of assessment of student learning outcomes to improve student learning.

To examine themes of assessment, champions of the ASLO process, and factors contributing to improvement of ASLO at the college studied, the following null hypotheses were identified.

$H_{011:}$ There was no significant difference in definitions of ASLO between full-time and AOs.

$H_{012:}$ There were no significant differences in beliefs between full-time faculty and AOs regarding the champions of the ASLO process at the campus studied.

$H_{013:}$ There was no significant difference in beliefs between full-time faculty and AOs regarding the factors that contributed significantly to the improvement of ASLO efforts at this college.

Demographics of Respondents

The ASLOB survey research instrument (Appendix C), adapted from Huba and Freed's (2000) *Key Questions to Consider when Establishing or Evaluating and Assessment Program* (Appendix A) and loosely modeled on the 2008 work of Rothgeb served as the basis for the quantitative portion of this study. The Assessment of Student Learning Outcomes Beliefs (ASLOB) instrument was pilot tested and revised as described in Chapter 3. All AOs and full-time faculty employed at the institution (n=483) were invited to participate in the study via e-mail message and link to the ASLOB instrument (Appendix E).

Overall Response Rate

Table 4-1 provides overall response rate data for faculty and AOs invited and those who participated in the study. It was important to note that five of the 483 invitations distributed via *SurveyMonkey*® immediately bounced back to the researcher stating that individuals had 'opted out' of surveys from this Internet provider. These

individuals were sent a paper copy of the ASLOB instrument with cover letter via U.S. Mail and their responses were recorded in the data set manually when returned.

A total of 138 (28.5%) persons from the study institution responded to the ASLOB. Seven of respondents chose not to participate or accept the informed consent protocol and an additional 10 responses were incomplete, therefore unusable, and were excluded from the study, yielding a total response of 121 (25.1%). As can be seen in Table 4-1, AOs and faculty with administrative duties (department or program chairs and coordinators) were the most responsive group of employees participating with 19 in each group (51.4% and 36.5%, respectively) completing the survey. Faculty, tenured and non-tenured, were the least responsive, with 59 (20.5%) of tenured and 24 (22.6%) of non-tenured faculty participating. Categories were aggregated, providing 38 AO and 83 faculty responses, or a total of 42.7% and 21.1% and of administrators and faculty responding, respectively.

Table 4-1. Participant response rates by employment category.

	Frequency		Percent
Position category	Invited	Participated	(%)
Executive, administrative or professional staff	37	19	51.4
Faculty with administrative duties*	52	19	36.5
Faculty, non-tenured	106	24	22.6
Faculty, tenured	288	59	20.5
Total	483	121	25.1
Total academic administrators (AOs)	89	38	42.7
Total faculty	394	83	21.1

*Tenured or non-tenured.

The 21.1% response rate from faculty at this institution was important to note and indicated potential non-response bias in the study. Fowler (2009) stated that nonresponse was an important and problematic source of error in survey research. Shih and Fan (2009) noted that response rates, particularly those for Internet-based surveys

were affected by many variables, including study design, characteristics of the population, and topic under research. Implications of potential non-response bias will be discussed further in Chapter 5.

Respondent Characteristics

The next three research questions on the ASLOB instrument allowed participants to provide locus of program responsibility (AA, AS/AAS, or both), years of service or teaching at the institution, and years of engagement in assessment of student learning outcomes. Table 4-2 provides data for participants by locus of program responsibility. Nearly half, 43.8%, of those responding had responsibilities in both the AA and AS/AAS programs of the college, 31.4% served the AA university parallel degree program only, and 24.8% were assigned to career and technical, AS/AAS, areas only. Faculty and administrators with responsibilities in both programs were the most responsive participants in each group, while AS/AAS were the lowest responding full-time faculty group (22.89%). Administrators were evenly split between AA and AA/AAS assignments (28.95%).

Table 4-2. Participant locus of program responsibility.

Audience	Faculty	Percent faculty (%)	AOs	Percent AOs (%)	Total	Percent total (%)
Associate of Arts (AA)	27	32.53	11	28.95	38	31.40
Career/technical (AS/AAS)	19	22.89	11	28.95	30	24.80
Both AA/AAS and AS	37	44.58	16	42.11	53	43.80
Total	83	100.00	38	100.00	121	100.00

Participants in the study were also asked to report number of years they had worked at (AOs) or taught at (faculty) the college, and the number of years they had been involved with assessment of student learning outcomes. Categories were 5 years

or less, 6-10 years, 11-15 years, 16-20 years, and 21 years or more. A cross-tabulation of frequency data for these two questions appears in Tables 4-3 and 4-4.

Table 4-3. Cross-tabulation of length of service by position.

	Position					
Years of service	Faculty	Percent (%)	AOs	Percent (%)	Total	Percent total (%)
5 years or less	28	33.73	11	28.95	39	32.2
6-10 years	26	31.33	4	10.53	30	24.8
11-15 years	11	13.25	9	23.68	20	16.6
16-20 years	8	9.64	8	21.05	16	13.2
21 years or more	10	12.05	6	15.79	16	13.2
Total	83	100.00	38	100.00	121	100.0

Table 4-4. Years of engagement in ASLO by position.

	Position					
Years of Engagement	Faculty	Percent (%)	AOs	Percent (%)	Total	Percent total (%)
No response	1	1.20	0	0.00	1	0.83
Not involved in ASLO	1	1.20	1	2.63	2	1.65
5 years or less	34	40.96	11	28.95	45	37.19
6-10 years	28	33.73	8	21.05	36	29.75
11-15 years	7	8.43	8	21.05	15	12.40
16-20 years	8	9.64	3	7.89	11	9.09
21 years or more	4	4.82	7	18.42	11	9.09
Total	83	100.00	38	100.00	121	100.00

Data shown in Table 4-3 indicated that frequency distributions for years of service for both AOs and faculty were skewed toward fewer years of service; this distribution was more pronounced in the faculty responding than in AOs. Both distributions were also left-skewed toward fewer years of service. Table 4-4 provides a summary of the number of years that AOs and faculty participating in the study were involved with assessment of student learning outcomes. For both AOs and faculty, these years of experience with assessment of student learning outcomes ranged from no involvement to 21 years or more, with the most frequent response being five years or less. Distributions for both groups of respondents were left-skewed toward less experience,

which indicated that those with fewer years of assessment experience were more likely to respond to the survey.

Quantitative Analyses

Independent t-test and analysis of variance (ANOVA) procedures were used to analyze quantitative data gathered from respondents and test null hypotheses previously described. Assessment Value (AV) composite score and Assessment Use (AU) composite score scales were calculated, as described in Chapter 3, and utilized as dependent variables. Results of quantitative statistical tests performed will be discussed in the balance of this section.

Beliefs Regarding the Value of ASLO

Research Questions (RQs) 1-4, concerning beliefs held by full-time faculty and administrators and regarding the value of ASLO, were examined through use of the Assessment Value (AV) Composite scale. Research Question 1 focused on the differences in beliefs full-time faculty and AOs held regarding the value of ASLO. The mean AV composite score for faculty was 64.12 (SD=13.57) and for AOs was 65.36 (SD=9.82) (Table 4-5).

An independent t-test was conducted to assess differences in mean AV composite scores for these groups. No statistically significant difference was found between the mean AV scores for beliefs held by full-time faculty and AOs regarding the value of ASLO ($t_{(109)}$=.473, p=.637). There was no evidence to suggest that there was a difference in beliefs held by full-time faculty and AOs regarding the value of assessment of student learning outcomes at the institution examined for this study; accordingly, H_{01} was not rejected.

Beliefs in the value of ASLO by locus of program (AA versus AS/AAS)

Faculty. Research Question 2 examined differences in beliefs regarding the value of ASLO based on locus of program responsibility for full-time faculty and AOs. For AA faculty, the AV composite score mean was 61.30 (SD=15.17), the mean for AS/AAS faculty was 69.80 (SD=12.22), and for faculty teaching in both programs the mean was 63.84 (SD=12.27) (Table 4-5). For full-time faculty, an ANOVA showed no significant difference in beliefs regarding the value of ASLO between groups based on locus of teaching responsibility ($F_{(2,71)}$=1.96, *p*=.149). There was no evidence to suggest that the beliefs regarding the value of assessment of learning outcomes held by faculty differed across AA, AS/AAS, or both programs; hence, H_{02A} was not rejected.

Administrators. The AV composite score mean for administrators of AA programs was 67.44 (SD=10.47), the mean for administrators supervising AS/AAS programs was 65.38 (SD=7.19), and the mean for administrators supervising both programs was 64.19 (SD=10.92) (Table 4-5). The ANOVA indicated no significant difference in means between these groups ($F_{(2,30)}$=.30, *p*=.741). No evidence suggesting that the beliefs regarding the value of ASLO held by administrators supervising across AA, AS/AAS, or both programs differed; therefore, H_{02B} was not rejected.

Table 4-5. Value (AV) and use (AU) composite scale means by audience category.

	AV composite			AU composite		
Position	N	Mean	SD	N	Mean	SD
Faculty						
AA faculty	27	61.30	15.17	26	18.81	4.76
AA/AAS faculty	15	69.80	12.22	17	20.00	2.52
Both programs	32	63.84	12.27	34	19.71	3.47
AO's						
AA administrators	9	67.44	10.47	10	19.80	2.70
AS/AAS administrators	8	65.38	7.19	9	20.78	2.28
Both programs	16	64.19	10.92	15	18.93	4.01

Beliefs in the value of ASLO based on longevity at the institution

Faculty. Research Question 3 examined whether or not differences in beliefs held by faculty and administrators regarding the value of ASLO were influenced by the number of years faculty had taught at the college or by the number of years AOs had worked at the college, respectively. An analysis of variance (ANOVA) test was performed to determine differences in AV composite score means across each group based on years of teaching or years in position.

Faculty AV composite score means ranged from 66.85 (SD=12.71) for five years or less teaching at the college, to 65.90 (SD=11.10) for 6-10 years, 66.60 (SD=7.06) for 11-15 years, 60.14 (SD=15.50), and 53.60 (SD=19.74) for 21 or more years teaching (Table 4-6). The ANOVA indicated no significant difference in means between these groups of faculty in relation to AV composite scores ($F_{(4,69)}$=2.23, p=.075). No evidence suggesting that faculty beliefs regarding the value of ASLO differed by years they had taught at the college studied; consequently, H_{03A} was not rejected.

Table 4-6. AV and AU faculty and AO composite scores by longevity at the institution.

	AV composite			AU composite		
Longevity at institution	N	Mean	SD	N	Mean	SD
Faculty years of teaching						
5 years or less	26	66.85	12.71	26	19.85	3.44
6-10 years	21	65.90	11.10	22	19.82	2.89
11-15 years	10	66.60	7.06	11	20.00	3.13
16-20 years	7	60.14	15.50	8	21.00	2.83
21 or more years	10	53.60	19.74	10	15.90	5.80
AO years of service						
5 years or less	9	66.44	10.66	8	18.25	2.12
6-10 years	3	58.00	5.57	4	22.00	2.16
11-15 years	8	61.63	12.11	9	19.00	4.00
16-20 years	7	69.29	9.20	8	19.13	3.48
21 or more years	6	67.83	5.53	5	22.20	2.05

Administrators. The AV composite score means for administrators ranged from 66.44 (SD=10.67) for five years or less service to the college, to 58.00 (SD=5.57) for 6-10 years, 61.63 (SD=12.11) for 11-15 years, 69.28 (SD=9.20) for 16-20 years, and 67.83 (SD=5.53) for 21 or more (Table 4-6). The ANOVA indicated no significant difference in means between these groups of administrators based on years of service in relation to AV composite scores ($F_{(4,28)}$=1.13, *p*=.362). Data provided no evidence suggesting that administrator beliefs regarding the value of ASLO differed by their years of service at the college studied; for that reason, H_{03B} was not rejected.

Beliefs in the value of ASLO based on years of involvement in assessment

Faculty. Research Question 4 focused on differences in beliefs regarding the value of ASLO and years of involvement in assessment activities. Faculty AV composite score means ranged from 67.68 (SD=11.65) for five years or less involvement in assessment, to 62.21 (SD=11.18) for 6-10 years, 62.33 (SD=4.08) for 11-15 years, 63.00 (SD=23.58), and 46.67 (SD=27.32) for 21 or more years of involvement in assessment (Table 4-7).

Table 4-7. AV and AU faculty and AO composite scores by assessment activity years.

	AV Composite			AU Composite		
Years of Assessment	N	Mean	SD	N	Mean	SD
Faculty						
5 years or less	32	67.69	11.65	30	20.13	3.38
6-10 years	24	62.21	11.18	26	19.04	3.05
11-15 years	6	62.33	4.08	7	19.29	2.93
16-20 years	7	63.00	23.58	8	20.88	3.68
21 or more years	3	46.67	27.32	4	16.00	9.29
AOs						
5 years or less	11	67.73	8.87	10	19.00	2.21
6-10 years	5	62.80	11.32	7	20.57	3.36
11-15 years	7	67.14	11.02	8	21.38	3.20
16-20 years	3	57.67	15.01	3	17.00	3.61
21 or more years	6	64.33	7.69	5	19.60	4.04

The ANOVA indicated no significant difference in means between these groups of faculty in relation to AV composite scores ($F_{(5,67)}$=1.61, *p*=.168). There was no evidence suggesting that faculty beliefs regarding the value of ASLO differed by years of involvement in assessment at the college studied; thus, H_{04A} was not rejected.

Administrators. The AV composite score means for administrators ranged from 67.73 (SD=8.87) for five years or less involvement in assessment, to 62.80 (SD=11.32) for 6-10 years, 67.14 (SD=11.02) for 11-15 years, 57.67 (SD=15.01) for 16-20 years, and 64.33 (SD=7.68) for 21 or more years of service (Table 4-7). The ANOVA indicated no significant difference in means between these groups of administrators based on years of involvement in assessment in relation to AV composite scores ($F_{(5,27)}$=.611, *p*=.692). There was no evidence suggesting that administrator beliefs regarding the value of ASLO differed based on years of involvement in assessment at the college studied; as a result, H_{04B} was not rejected.

Beliefs in the Use of ASLO

Research Questions 5, 6, 7, and 8, concerning beliefs held by full-time faculty and administrators and regarding the use of ASLO, were examined utilizing the Assessment Use (AU) composite scale.

Research Question 5 posited that there was no significant difference in beliefs held by full-time faculty and AOs regarding the use of assessment of student learning outcomes. The mean AU composite score for faculty was 19.47 (SD=3.77), while the mean AU score for AOs was 19.68 (SD=3.26) (Table 4-5). An independent t-test was also performed to determine any differences in the mean AU composite scores. No statistically significant difference was found between the means of full-time faculty or AOs regarding the use of assessment of student learning outcomes (t(109)=.280;

p=.780). There was no evidence to suggest that beliefs regarding use of assessment of learning outcomes held by administrators and faculty differed; therefore, H_{05} was not rejected.

Beliefs in use of ASLO by locus of program (AA versus AS/AAS)

Faculty. Research Question 6 examined belief differences regarding the use of ASLO based on locus of responsibility for full-time faculty and AOs. Analysis of variance (ANOVA) was used to test for differences in means between these groups. The AU composite mean for AA faculty was 18.81 (SD=4.76), the mean for AS/AAS faculty was 20.00 (SD=2.52), and the mean for faculty teaching in both programs was 19.70 (SD=3.47) (Table 4-5). An ANOVA indicated no significant difference in means between these groups ($F_{(2,74)}$=.628, *p*=.537). There was no evidence to suggest that beliefs regarding the use of assessment of learning outcomes held by faculty differed across AA, AS/AAS, or both programs; and so, $H_{06A}$was not rejected.

Administrators. The AU composite scale was also used to examine differences in beliefs held regarding the use of ASLO between AOs with responsibilities in AA programs, AA/AAS programs, and those overseeing programs in both areas. For AA program administrators, the AU composite mean was 19.80 (SD=2.70), the mean for AS/AAS administrators was 20.78 (SD=2.28), and the mean for overseeing programs in areas was 18.93 (SD=4.01) (Table 4-5). An ANOVA indicated no significant difference in means between these groups ($F_{(2,31)}$=.903, *p*=.416). There was no evidence to suggest that beliefs regarding the use of assessment of learning outcomes held by administrators differed across AA, AS/AAS, or both programs; for that reason, H_{06B} was not rejected.

ASLO beliefs and longevity at the institution

Research Question 7 examined whether or not differences in beliefs held by faculty and administrators regarding the use of ASLO were influenced by the number of years faculty had taught at the college or by the number of years AOs had worked at the college, respectively. Analysis of variance (ANOVA) tests were performed to determine differences in AU composite score means across each group based on years of teaching or years in position.

Faculty. Faculty AU composite score means ranged from 19.85 (SD=3.44) for five years or less teaching at the college, to 19.82 (SD=2.89) for 6-10 years, 20.00 (SD=3.13) for 11-15 years, 21.00 (SD=2.82), and 15.90 (SD=5.80) for 21 or more years teaching (Table 4-6). The ANOVA indicated a significant difference in means between these groups of faculty in relation to AV composite scores ($F_{(4,72)}$=3.02, *p*=.023). A post hoc Bonferroni test for differences between faculty groups demonstrated that significant differences existed between faculty teaching five or less years and those teaching 21 years or more (*p*=.042), and those teaching 16-21 years and those teaching 21 years or more (*p*=.038). Thus, evidence suggested that faculty who had been teaching at the institution longer exhibited lower mean scores for beliefs regarding the use of ASLO than those who had taught at the college 6-10 years or 5-years or less, and H_{07A} was rejected.

Administrators. The AU composite score means for administrators ranged from 18.25 (SD=2.12) for five years or less service to the college, to 22.00 (SD=2.16) for 6-10 years, 19.00 (SD=4.00) for 11-15 years, 19.13 (SD=3.18) for 16-20 years, and 22.20 (SD=2.05) for 21 or more (Table 4-6). An ANOVA indicated no significant difference in means between these groups of administrators based on years of service in relation to

AU composite scores ($F_{(4,29)}$=2.01, *p*=.1149). Data provided no evidence suggesting that administrator beliefs regarding the use of ASLO differed by their years of service at the college studied; consequently H_{07B} was not rejected.

Beliefs in use of ASLO based on years of involvement in assessment

Faculty. Research Question 8 focused on differences in beliefs regarding the use of ASLO and years of involvement in assessment activities. Faculty AU composite score means ranged from 20.13 (SD=3.38) for five years or less involvement in assessment, to 19.04 (SD=3.05) for 6-10 years, 19.29 (SD=2.93) for 11-15 years, 20.88 (SD=3.68), and 16.00 (SD=9.59) for 21 or more years of involvement in assessment (Table 4-7). An ANOVA test indicated no significant difference in means between these groups of faculty in relation to AU composite scores ($F_{(5,70)}$=1.34, *p*=.259). There was no evidence suggesting that faculty beliefs regarding the use of ASLO differed by years of involvement in assessment at the college studied; thus, H_{08A} was not rejected.

Administrators. The AU composite score means for administrators ranged from 19.00 (SD=2.211) for five years or less involvement in assessment, to 20.57(SD=3.36) for 6-10 years, 21.38 (SD=3.20) for 11-15 years, 17.00 (SD=3.61) for 16-20 years, and 19.60 (SD=4.04) for 21 or more years of service (Table 4-7). The ANOVA indicated no significant difference in means between these groups of administrators based on years of involvement in assessment in relation to AU composite scores ($F_{(5,28)}$=.1.56, *p*=.203). There was no evidence suggesting that administrator beliefs regarding the use of ASLO differed based on years of involvement in assessment at the college studied; hence, H_{08B} was not rejected.

Beliefs Regarding the Impact of ASLO on Teaching and Learning

The final quantitative questions presented on the ASLOB instrument examined full-time faculty and administrator beliefs held regarding the impact of ASLO on teaching and learning. Again locus of responsibility, AA versus AS/AAS or both programs was utilized to test for differences between each group. Research Question 9 asked whether or not respondents believed that ASLO informed teaching at the college, while Research Question 10 explored beliefs regarding whether or not ASLO improved student learning.

Beliefs regarding ASLO informing teaching

Faculty. Mean scores for full-time faculty regarding their belief that ASLO informed their teaching were 3.82 (SD=1.22) for AA faculty, 4.67 (SD=0.49) for AS/AAS faculty, and 3.73 (SD=1.33) for faculty teaching across both programs (Table 4-8). An ANOVA indicated a significant difference in means between faculty groups with regard to beliefs that ASLO informed teaching ($F_{(2,80)}$=4.28, p=.017). A post hoc Bonferroni test for differences demonstrated that significant differences existed between AA and AS/AAS (p=.054) faculty, and between AS/AAS faculty and those teaching in both programs (p=.018). Thus, data suggested that AS/AAS faculty exhibited greater beliefs that ASLO informed teaching than did AA faculty or those teaching in both programs. Accordingly, H_{09A} was rejected.

Administrators. Administrator mean scores for beliefs that ASLO informed teaching were 3.55 (SD=1.37) for AOs overseeing AA programs, 4.27 (SD=0.65) for those administering AS/AAS programs, and 3.88 (SD=1.41) for those engaged across both programs (Table 4-8). An ANOVA indicated no significant difference in means between these groups of administrators with regard to their belief that ASLO informed

teaching ($F_{(2,35)}$=.97, *p*=.389). There was no evidence that suggested a difference in administrators' beliefs regarding the use of ASLO to inform teaching existed across programs the college studied; for that reason, H_{09B} was not rejected.

Table 4-8. Beliefs regarding use of ASLO to inform teaching and improve learning.

	ASLO informs teaching			ASLO improves learning		
	N	Mean	SD	N	Mean	SD
Faculty						
AA faculty	28	3.82	1.22	28	3.82	1.06
AA/AAS faculty	18	4.67	0.49	18	4.78	.43
Both programs	37	3.73	1.33	37	4.05	1.18
AOs						
AA administrators	11	3.55	1.37	11	4.27	.47
AS/AAS administrators	11	4.27	0.65	11	4.27	.65
Both programs	16	3.88	1.41	16	4.00	1.10

Beliefs regarding ASLO and improved learning

Faculty. Mean scores for full-time faculty regarding their belief that ASLO improved student learning were 3.82 (SD=1.06) for AA faculty, 4.78 (SD=0.43) for AS/AAS faculty, and 4.05 (SD=1.18) for faculty teaching across both programs (Table 4-8). An ANOVA indicated a significant difference in means between faculty groups with regard to beliefs that ASLO improved learning ($F_{(2,80)}$=5.02, *p*=.009). A post hoc Bonferroni test for differences demonstrated that, again, significant differences existed between AS/AAS and AA faculty (*p*=.008), and between AS/AAS faculty and those teaching in both programs (*p*=.047). Thus, data suggested that AS/AAS faculty exhibited greater beliefs that ASLO improved teaching than did AA faculty or those teaching in both programs. Accordingly, H_{010A} was rejected.

Administrators. Administrator mean scores for beliefs that ASLO improved learning were 4.27 (SD=.47) for AOs overseeing AA programs, 4.27 (SD=0.65) for those administering AS/AAS programs, and 4.00 (SD=1.10) for those engaged across

both programs (Table 4-8). An ANOVA indicated no significant difference in means between these administrators with regard to their belief that ASLO improved learning ($F_{(2,35)}$=.50, *p*=.614). There was no evidence that suggested a difference in administrators' beliefs regarding the use of ASLO to improve learning existed across programs the college studied; consequently, H_{010B} was not rejected.

Qualitative Analyses

Research Questions 11, 12, and 13 examined themes in assessment definitions, beliefs in influential individuals in the ASLO process, and factors contributing to improvement of ASLO to ascertain if differences existed in these areas between full-time faculty and AO views at the college studied. The definition question was framed as an open-ended response, while questions concerning influential individuals and improvement factors were multiple response items with an open-ended option for respondents to list "Other" categories not shown. For Research Question 11, responses were coded and sorted thematically utilizing Spradley's (1979) model of domain analysis to identify prominent themes. For Research Questions 12, 13, and 14, the *SPSS-PASW Statistics 18*® multiple response command, a form of cross tabulation (Argyrous, 2011), was utilized to analyze frequencies of responses for all items and pinpoint common variables for each group, and non-parametric Mann-Whitney U tests were used to determine statistical significance.

Definitions of Assessment

Research Question 11 of this study examined themes present in full-time faculty and AO definitions of assessment of student learning outcomes, and if themes reported differed between the two groups. To do so, ASLOB participants were asked to provide their definition of assessment of student learning outcomes. A total of 106 participants

(80 faculty and 26 AOs) responded. Two of the responses were deemed to be outliers, with only a single response each, and were removed from the overall data set, yielding a total of 104 usable comments. All comments were subjected to three rounds of thematic coding to analyze responses.

Overarching themes

Five overarching themes emerged from the 104 usable definitions provided (Table 4-9). These themes were evaluation and documentation (54.81% overall); measurement of student mastery (26.92% overall); ongoing and systematic confirmation of what students were learning and how faculty knew they were learning it (7.69% overall); defined, measurable criteria for college-wide standards of learning (4.81% overall); and a means of improving teaching learning through feedback to instructors and students (4.81% overall). Two foci were clearly more prevalent in the overall responses: evaluation and documentation and measurement of student mastery (81.73% of all responses combined). Representative remarks from first three areas are presented below from both faculty and AOs. Definitions falling into the latter two thematic areas, ongoing and systematic confirmation of student learning; defined, measurable criteria for college-wide standards of learning; and a means of improving teaching and learning through feedback to instructors and students, were not sufficiently detailed to present detailed responses from both position groups.

Respondent definitions from key thematic areas

Evaluation and documentation. The majority of responses that were coded in the evaluation and documentation area exhibited rhetoric containing evaluation or examination; outcomes or standards; and student achievement, knowledge, competency, or mastery. Many definitions provided were focused on the relationship

between teaching and learning. One faculty member teaching in both the AA and AS/AAS programs of the college wrote:

> Assessment is the level of success in student mastery of learning outcomes for each student, at the individual, classroom, program, and college-wide level. This assessment is used to inform students and instructors of the level of student achievement and to determine what aspects of student learning can be amended and improved. The assessment ideally includes both formative and summative paths, with a built-in means for remediation at all levels and at any time in the process.

Administrator statements in this thematic area were similar. One AO with an AS/AAS locus of supervisory responsibility wrote:

> Student learning outcomes directly describe what a student is expected to learn as a result of participating in academic activities or experiences at the College. They focus on knowledge gained, skills and abilities acquired and demonstrated, and attitudes or values changed.

Measurement of student mastery. Definitions articulated under the measurement of student mastery thematic area were focused primarily on the measurement aspects of ASLO. One faculty member teaching across both the AA and AS/AAS programs of the college noted:

> Assessment of student learning outcomes is the development of measurement methods meant to determine whether or not the pre-established learning outcomes are being met by the student. By defining learning outcomes in advance, continuity amongst educators for similar course content and strategies for accomplishing learning goals can be established.

Likewise, an administrator with supervisory responsibilities across similar programs commented that assessment of student learning outcomes was “measuring the extent to which students have acquired the skills/knowledge stated in the learning outcomes of the course.”

Ongoing and systematic confirmation of student learning. Ongoing and systematic confirmation of student learning definitions centered on the notion of whether

students were learning what faculty believed they were teaching. One definition from a faculty member teaching in both AA and AS/AAS programs at the college stated:

> In a nutshell, "Are we doing what we say we are doing?" As facilitators of the learning experience, we are to continually monitor our curricular intent of the learning experience we present.

While another faculty member responded that ASLO was defined as "[e]valuating in a clear and systematic approach that students learned what they were taught."

Correspondingly, two administrators, with responsibilities across both AA and AS/AAS programs of the college noted that ASLO was a "process used to ensure students are learning what we say they are learning" and a "gauge of whether students are learning the critical skills we want them to learn."

Differences between faculty and administrators. As previously stated, the most encountered definitions of ASLO focused on evaluation and documentation of student mastery of stated learning outcomes, this overall ranking held true for both faculty (52.56%) and administrators (61.54%). However, faculty reported definitions centered on measurement of student mastery of stated learning outcomes second (30.77%), while AOs reported both the measurement of mastery definition and statements that highlighted ongoing and systematic confirmation of what students were learning and how faculty knew they were learning second with equal frequency (15.38%). Faculty reported ongoing and systematic confirmation themes third most frequently (5.13%), demonstrating some difference in definitions between the two groups. The final two clusters of themes focused on defined and measurable criteria (6.41%, faculty; 3.85%, AOs) and means of improving teaching and learning through feedback to students and instructors (5.13%, faculty; 3.85%, AOs).

Table 4-9. Frequency of themes in definitions of ASLO.

	Faculty			AOs			Total	
Theme	Freq	Percent faculty (%)	Relative freq (%)	Freq	Percent AOs (%)	Relative freq (%)	Freq	Percent (%)
Evaluation of student mastery	41	52.56	39.42	16	61.54	15.38	57	54.81
Measurement of student mastery	24	30.77	23.08	4	15.38	3.85	28	26.92
Systematic confirmation of what students are learning and how faculty know	4	5.13	3.85	4	15.38	3.85	8	7.69
Defined, measurable college-wide standards of learning	5	6.41	4.81	1	3.85	0.96	6	5.77
Improving teaching and learning via feedback	4	5.13	3.85	1	3.85	0.96	5	4.81
Total	78	100.00	75.00	26	100.00	25.00	104	100.00

As can be seen in Table 4-9, faculty responses had a broader dispersion across the five thematic areas than did administrators, whose definitions were primarily focused on the dominant theme of evaluation and documentation. Given the greater dispersion of faculty differences, as well as the fact that nearly half (45.19%) of all definitions presented by faculty and AOs at the college were dispersed unequally across multiple categories, the researcher found that definitions of ASLO indeed differed between faculty and administrators and rejected H_{011}.

Identifying Influential Individuals in the ASLO Effort

To ascertain whether or not there was a primary influential individual, or ‘champion,’ of ASLO efforts at the college studied, and whether beliefs about who that

individual was differed between full-time faculty and AOs, respondents to the ASLOB survey were asked to identify ‘all that applied’ from an eight-item list of possible working groups or key individuals and offices that may have had an impact on ASLO efforts at the college. Respondents also had the option to choose ‘Other’ and provide a free-form response.

Frequencies and non-parametric tests

Overall, respondents reported that a faculty-driven assessment team had been most influential in ASLO efforts on this campus (17.88% of responses) (Table 4-10). Deans (14.86%), a cross-functional campus team (14.36%), and the college president (14.11%) formed the second tier of identified influential assessment entities. Institutional researchers (12.59%) and vice presidents (11.34%) were identified as a third level of influential individuals. Department chairs and division chairs were lowest on the frequency list (8.82% and 6.05% respectively). All rankings for the top five most influential individuals for faculty and AO groups were consistent with the overall findings. However, slight differences were seen in the bottom clusters -- faculty ranked department chairs ahead of vice president and division chairs, while AOs ranked vice presidents ahead of department and division chairs (Table 4-10).

To more closely examine the differences in beliefs held by faculty and AOs, a non-parametric Mann-Whitney U test was conducted for distributions of responses. The overall test of all responses for beliefs held regarding influential individuals was the same across faculty and AOs (p=.359), and thus indicated that the researcher would fail to reject $H_{012.}$ However, factor-by-factor Mann-Whitney U tests were subsequently conducted to examine the differences seen in the data distribution (Table 4-11), which indicated a significant difference in the distribution of beliefs held by faculty and AOs

regarding vice presidents as influential individuals in the ASLO effort on this campus (p=.006).

Table 4-10. Influential individuals in the ASLO process as identified by faculty and AOs.

	Faculty			AOs			Total	
Influential individual(s)	Freq	Percent faculty (%)	Relative freq	Freq	Percent AOs (%)	Relative freq	Freq	Percent (%)
Faculty-driven team	45	17.18	11.34	26	19.26	6.55	71	17.88
Our dean(s)	41	15.65	10.33	21	15.56	5.29	62	15.62
Cross-functional team	40	15.27	10.08	19	14.07	4.79	59	14.86
President	39	14.89	9.82	18	13.33	4.53	57	14.36
Institutional research officer(s)	31	11.83	7.81	17	12.59	4.28	48	12.09
Vice presidents(s)	27	10.31	6.80	17	12.59	4.28	44	11.08
Department chair(s)	24	9.16	6.05	9	6.67	2.27	33	8.31
Division chair(s)	15	5.73	3.78	8	5.93	2.02	23	5.79
Total	262	100.00	65.99	135	100.00	34.01	397	100.00

Table 4-11. Mann-Whitney U independent samples tests for influential individuals.

Distribution was equal across faculty and administrators for:	Significance (α = .05)
Cross-functional campus team	p=.725
Faculty-driven assessment team	p=.142
Institutional research officer(s)	p=.191
Department chair(s)	p=.198
Division chair(s)	p=.474
Dean(s)	p=.836
Vice presidents(s)	p=.006*
President	p=.818

*Indicates significance at the α=.05 level.

Open-ended responses

Open-ended responses regarding influential individuals of ASLO were received from 19 participants, nine faculty and 10 AOs. Faculty responses varied widely. Two

respondents reported that no one was influential in assessment on the campus, while another noted, “It seems that many of these apply, and … [are] the province of everyone on this list, to one degree or another.” Other single responses included “assistant vice presidents,” several departmental offices (“the teaching and learning academy” and “the faculty development office”), and “non-departmental administration.” One respondent stated that they did not know who was influential in the ASLO process and another wrote that “individuals who want to avoid classrooms” were most influential in the effort.

Responses from administrators followed similar themes: four mentioned specific campus offices (workforce development, the faculty compensation committee, the assessment office, and the grants office) and three cited executive level staff (provosts and assistant vice presidents). Two others stated that faculty served as influential individuals in the effort -- one administrator specifically noted faculty teams while another stated, “Faculty are integral part of the process and, ideally, the college leadership would prefer if they took a more active role in the process.”

Influential Individuals and Offices in the ASLO Effort

To delve more deeply into beliefs regarding who at this college was influential in ASLO efforts, participants were asked to name a single individual or office that was most influential in creating a climate for assessment at the institution. A total of 96 responses to this question were received, 73 from faculty and 23 from administrators. Responses were subsequently coded and sorted thematically utilizing Spradley’s (1979) model of domain analysis to identify prominent themes. Frequency distributions were calculated using *SPSS-PASW Statistics 18*® and results were tabulated.

Both faculty and AOs reported that the chief assessment officer and assessment office were the most influential individuals in ASLO efforts at this campus (24.66%, faculty; 43.48%, AOs) (Table 4-12). Faculty development offices were also ranked second in influence by faculty (17.81%) and by administrators (13.04%). Administrators named key individual faculty members as influential in the process at this level (13.04%), while faculty reported themselves fifth (8.22%) of their responses.

Table 4-12. Individuals and offices most influential in the success of ASLO.

	Faculty			AOs			Total	
Influential individual or office	Freq	Percent Faculty (%)	Relative Freq (%)	Freq	Percent AOs (%)	Relative Freq (%)	Freq	Percent (%)
Assessment officer(s)	18	24.66	18.75	10	43.48	10.42	28	29.17
Faculty development office(s)	13	17.81	13.54	3	13.04	3.13	16	16.67
Senior administrators	10	13.70	10.42	1	4.35	1.04	11	11.46
Uncertain/cannot name	9	12.33	9.38	1	4.35	1.04	10	10.42
Academic chair(s)	8	10.96	8.33	1	4.35	1.04	9	9.38
Faculty	6	8.22	6.25	3	13.04	3.13	9	9.38
Workforce development office(s)	4	5.48	4.17	1	4.35	1.04	5	5.21
Faculty governance committee(s)	2	2.74	2.08	1	4.35	1.04	3	3.13
Academic support unit(s)	2	2.74	2.08	0	0.00	0.00	2	2.08
Administrative office(s)	1	1.37	1.04	2	8.70	2.08	3	3.13
Total	73	100.00	76.04	23	100.00	23.96	96	100.00

It was important to note that while faculty ranked senior administrators (president and provosts) third overall (13.70%) in creating a climate of assessment on this campus, administrators ranked various administrative offices on the campus as third

overall in influence over the process (8.70%). Also important to note was that faculty were uncertain of, or could not name a single influential individual or office in 12.33% of their responses, and named academic chairs, dean, division, program, or department chair as the critical individual in creating an assessment climate in 10.96% of responses; both categories in which AOs had minimal response (4.35%). The workforce development office and staff were also of some importance to faculty (5.48%), while AOs made minimal mention of this area (4.35%).

Variation in frequency of responses below the level of primary influential individual, assessment office/officer, led the researcher to conclude that differences in beliefs between faculty and AOs existed in regard to individuals and offices most influential in ASLO at this college (Table 4-12).

Significant Factors Leading to Improvement of ASLO

Following Hutchings (2010a) work on faculty involvement in the assessment process, beliefs about factors contributing to a more effective ASLO effort at the college were studied through Research Question 12, a 9-item multiple response question. Again, respondents were given the option to choose 'Other' and provide a free-form response to the question. The *SPSS-PASW Statistics 18*® multiple response command was utilized to analyze frequencies of responses for all items and non-parametric Mann-Whitney U tests were used to determine statistical significance.

Frequencies and non-parametric tests

Faculty development was the dominant theme in responses to this question (Table 4-13). Additional faculty development/training for *doing* ASLO was reported most frequently overall (17.63%) and by faculty (18.10%), while additional faculty development/training for *using* ASLO data was reported second overall (17.11%) and

most frequently by administrators (19.59%). Additional faculty engagement in the process was also reported in the top three critical factors overall (15.53%), and by faculty (15.09%) and administrators (16.22%) in relatively close alignment.

The next level of factors included sustained campus conversations regarding student learning (faculty, 13.36%; administrators, 15.54%), with administrators reporting that these conversations were more important than did faculty. Additional institutional rewards for assessment work and scholarship were also reported more frequently by faculty (12.50%), than by administrators (9.46%). Stronger faculty leadership in the ASLO process was somewhat aligned, with faculty believing a somewhat less in this factor (8.19%) than did administrators (9.46%).

It was important to note that only faculty reported that none of the factors listed in the question would contribute to an improved ASLO effort on this campus (2.16%) or that they did not know what would contribute to improved efforts (2.16%); there were no administrator responses to either of these last question items.

To confirm these differences, non-parametric Mann-Whitney U tests (Table 4-14) were conducted. Results of the Mann-Whitney test for all factors combined indicated that the distribution of factors with the potential to improve ASLO at this college was the same across faculty and AOs (p=.359). Given that differences in frequency were noted, factor-by-factor Mann-Whitney tests were performed that confirmed significant differences between faculty and AOs in three areas: faculty training/development in the use of assessment data (p=.033), additional faculty engagement in the assessment process (p=.001), and sustained campus conversations about student learning

(p=.018). Given these differences in beliefs between faculty and AOs regarding factors that might improve ASLO efforts on this campus, the researcher rejected H_{013}.

Table 4-13. Factors contributing to improved ASLO efforts.

	Faculty			AOs			Total	
	Freq	Percent faculty (%)	Relative freq (%)	Freq	Percent AOs (%)	Relative freq (%)	Freq	Percent (%)
Additional faculty development for *doing* ASLO	42	18.10	11.05	25	16.89	6.58	67	17.63
Additional faculty development for *using* ASLO data	36	15.51	9.47	29	19.59	7.63	65	17.11
Additional faculty engagement in ASLO	35	15.09	9.21	24	16.22	6.32	59	15.53
Sustained campus conversations about student learning	31	13.36	8.16	23	15.54	6.05	54	14.21
Stronger faculty leadership role in ASLO	29	12.50	7.63	19	12.84	5.00	48	12.63
Additional institutional rewards for ASLO work and scholarship	29	12.50	7.63	14	9.46	3.68	43	11.32
Greater resources for new tools and technologies	19	8.19	5.00	14	9.46	3.68	33	8.68
None of the above	6	2.59	1.58	0	0.00	0.00	6	1.58
Don’t know	5	2.16	1.32	0	0.00	0.00	5	1.32
Total	232	100.00	61.05	148	100.00	38.95	380	100.00

Table 4-14. Mann-Whitney U independent sample tests for ASLO improvement factors

Distribution was equal across faculty and administrators for:	Significance (α = .05)
Additional faculty development/training for doing ASLO	*p*=.120
Additional faculty development/training for using ASLO data	*p*=.033*
Additional faculty engagement in the ASLO process	*p*=.001*
Sustained campus conversations about student learning	*p*=.018*
Stronger faculty leadership role in the ASLO process	*p*=.111
Additional institutional rewards for assessment work and scholarship	*p*=.840
Greater resources for new tools and technologies of assessment	*p*=.118
None of the above	*p*=.090
Don't know	*p*=.124

*Indicates significance at the α=.05 level.

Open-ended responses

Eleven open-ended responses to this question were reported, eight from faculty and three from administrators. These detailed comments provided additional insights into the climate of assessment seen on the campus studied and no common themes emerged from the thematic coding process. Faculty comments ranged from a call for "less jargon," to a need for "more specific, reasonable, and discourse-based outcomes," to a call for "a model of assessment directly tied to course development tied to course design." One faculty member wrote:

> The language of "student learning" is flawed … without baselines of what students know, one cannot measure in any meaningful [way] what a student has learned. Learning centeredness and student learning outcomes are propaganda devices to make people who are doing nothing look like they have everyone doing something important. Let's talk about student performance and abandon the nonsense of student learning.

One faculty member also noted a need for additional faculty compensation to do the work of assessment, while another called for campus based communities of learning. Administrator comments were similarly varied and ranged from a call for "true comparisons between students in the same courses," to more "collaborative styles of

leadership," to "additional full-time tenure track faculty (manpower) who can accomplish this time-consuming work."

Summary

All full-time faculty and academic administrators at a southeastern community college (n=483) received an e-mail invitation to participate in an assessment of student learning outcomes beliefs (ASLOB) survey. A total of 121 (25.1%) useable responses were received. Respondents were aggregated by position, providing 38 AOs (42.7%) and 83 faculty (21.1%) participants. The 21.1% response rate from faculty at this institution was important to note and indicated potential non-response bias.

Nearly half, 43.8%, of all participants had responsibilities in both the AA and AS/AAS programs of the college, nearly a third, 31.4%, served the AA university parallel degree program, and 24.8% were assigned to career and technical, AS/AAS, areas only. Respondents' length of service to the institution was skewed toward fewer years; the majority of faculty participating (65.06%) taught at the college for 10 years or less, while the majority of AOs (66.16%) served 15 or fewer years. Participant data for years of involvement with ASLO was similarly skewed toward fewer years of involvement; most faculty members (74.69%) reported ASLO involvement for 10 or less years, while most administrators (71.05%) reported 15 or fewer years.

To answer Research Questions 1 through 8, Assessment Value (AV) composite score and Assessment Use (AU) composite score scales were calculated and served as dependent variables for bivariate analyses including independent t-test and analysis of variance (ANOVA). Statistical analyses showed no significant differences in beliefs in the value of ASLO held by faculty and administrators overall ($t_{(109)}$=.473, p=.637). Likewise, no significant differences in beliefs in value were found for faculty or

administrators by locus of program responsibilities [faculty ($F_{(2,71)}$=1.96, *p*=.149); administrators ($F_{(2,30)}$=.30, *p*=.741)]; years of teaching at or service to the institution [($F_{(4,69)}$ faculty =2.23, *p*=.075; $F_{(4,28)}$ administrators =1.13, *p*=.362)], or years of involvement in assessment [faculty ($F_{(5,67)}$=1.61, *p*=.168); administrators ($F_{(5,27)}$=.611, *p*=.692)].

No significant difference was also found between beliefs regarding the use of assessment of learning outcomes held by faculty or administrators ($t_{(109)}$=.280; *p*=.780). Again, no differences were found in beliefs regarding ASLO use based on locus of program responsibility [faculty ($F_{(2,74)}$=.628, *p*=.537);administrators ($F_{(2,31)}$=.903, *p*=.416)] or years of involvement in assessment activities [faculty ($F_{(5,70)}$=1.34, *p*=.259); administrators ($F_{(5,28)}$=.1.56, *p*=.203)]. However, a significant difference in means was observed for faculty beliefs in the use of ALSO based on the number of years faculty had taught at the college (faculty $F_{(4,72)}$=3.02, *p*=.023). Post hoc tests between faculty groups demonstrated that significant differences existed between faculty teaching five or less years and those teaching 21 years or more (*p*=.042), and those teaching 16-21 years and those teaching 21 years or more (*p*=.038). This finding suggested that faculty who were newer to the institution held more favorable beliefs as to the use of assessment of student learning outcomes to inform teaching and learning. A similar difference in means was not observed for administrators (administrators $F_{(4,29)}$=2.01, *p*=.1149).

Research Questions 9 and 10 examined faculty and administrators beliefs regarding whether or not ASLO informed teaching or made an impact on learning at the institution studied. Significant differences in beliefs were found for faculty on both

questions. Faculty beliefs regarding whether or not ASLO informed their teaching were significant across AA, AS/AAS, and faculty teaching in both programs ($F_{(2,80)}$=4.28, *p*=.017). A post hoc test for differences demonstrated that significant differences existed between AA and AS/AAS (*p*=.054) faculty, and between AS/AAS faculty and those teaching in both programs (*p*=.018), suggesting that these faculty believed more strongly than AA faculty that ASLO informed their teaching. Similarly, there was a significant difference in means between faculty groups with regard to beliefs that ASLO improved learning ($F_{(2,80)}$=5.02, *p*=.009). A post hoc test for differences demonstrated that, again, significant differences existed between AS/AAS and AA faculty (*p*=.008), and between AS/AAS faculty and those teaching in both programs (*p*=.047), suggesting that these faculty believed more strongly that ASLO improved learning than did AA faculty. No differences were observed for administrators on either question ($F_{(2,35)}$ informed teaching =.97, *p*=.389) or ($F_{(2,35)}$ improved learning =.50, *p*=.614).

Research Questions 11, 12, and 13 qualitatively examined themes in assessment definitions, beliefs in which individuals were most influential in the ASLO process, and factors contributing to improvement of ASLO to ascertain if differences existed in these areas between full-time faculty and AO views at the college studied. Multiple response analysis utilizing *SPSS-PASW Statistics 18*®, a form of cross tabulation (Argyrous, 2011), was utilized to analyze frequencies of responses and non-parametric Mann-Whitney U tests were used to determine statistical significance. Analysis of opened-ended responses was accomplished utilizing Spradley's (1979) model of domain analysis to identify prominent themes.

Five themes emerged in definitions of assessment of student learning outcomes. Two of these themes were clearly more prevalent in the overall responses: ‘evaluation and documentation’ and ‘measurement of student mastery’ (81.73% of all responses combined). Faculty definitions had a broader dispersion across the five thematic areas than did those of administrators, whose definitions were primarily focused on the dominant theme of ‘evaluation and documentation.’ Faculty reported definitions centered on ‘measurement of student mastery of stated learning outcomes’ less frequently than did AOs, while AOs reported both the ‘measurement of mastery’ and ‘ongoing and systematic confirmation of what students were learning and how faculty knew they were learning’ less frequently than did faculty.

Faculty and AOs at this college clearly believed that a faculty-driven assessment team was the champion ASLO efforts (17.88% of responses), with administrators believing this slightly more strongly than did faculty. Deans (14.86%), a cross-functional campus team (14.36%), and the college president (14.11%) formed a second tier of identified assessment supporters. The Institutional research office (12.59%) and vice presidents (11.34%) were identified as a third level of influential individuals. Department chairs and division chairs were lowest on the frequency list (8.82% and 6.05% respectively). Frequencies of responses for faculty and AO groups for the top five champions were consistent with the overall findings. However, a factor-by-factor Mann-Whitney U test indicated a significant difference between faculty and AOs regarding their beliefs that vice presidents had championed ASLO effort at this college (p=.006).

Interestingly, while participants believed that a faculty-driven assessment team was the overall champion of ASLO at this college, both faculty and AOs reported that the chief assessment officer and assessment office were the primary individuals responsible for the success of ASLO efforts (24.66%, faculty; 43.48%, AOs).

Faculty development emerged as the dominant factor leading to improved ASLO efforts at this college. Additional faculty development/training for *doing* ASLO was reported most frequently overall (17.63%) and by faculty (18.10%) as a potential improvement factor, while additional faculty development/training for *using* ASLO data was reported second overall (17.11%) and most frequently by administrators (19.59%). A non-parametric Mann-Whitney U test indicated that the distribution of factors with the potential to improve ASLO at this college was the same across faculty and AOs overall (p=.359), however, factor-by-factor Mann-Whitney tests confirmed that faculty and AOs priorities differed in three areas: faculty training/development in the use of assessment data (p=.033), additional faculty engagement in the assessment process (p=.001), and sustained campus conversations about student learning (p =.018).

Implications of these results for practice, recommendations for further research, and general conclusions will be discussed further in Chapter 5.

CHAPTER 5
CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This study examined differences in beliefs regarding the value and use of assessment of student learning outcomes (ASLO) held by full-time faculty and academic administrators (AOs) at a southeastern community college. Specifically, the study examined whether or not full-time faculty and AOs at this college believed that assessment of student learning outcomes improved student learning and teaching. It was expected that understanding beliefs about assessment held by faculty and AOs at the college studied would provide insights and strategies for other community college practitioners in their assessment initiatives.

To determine overall beliefs regarding the value of ASLO, research questions for the study were focused on beliefs held by both full-time faculty and administrators regarding the value, use, and impact of ASLO on teaching and learning; influential individuals and entities in the ASLO process; and factors that would lead to improved ASLO efforts at the college studied. Questions regarding the beliefs in the value and use of ASLO were centered on general differences in the beliefs held regarding the value of ASLO by full-time faculty and AOs, and whether factors including locus of program responsibility (associate of arts versus career/technical), longevity at the institution, or the number of years of involvement in assessment activities were related to those beliefs. Questions related to beliefs regarding the impact of ASLO on student learning asked whether or not faculty and AOs believed the use of ASLO informed teaching or improved student learning. Additional research questions addressed full-time faculty and AO definitions of assessment of student learning outcomes through open-ended or multiple response questions, and asked who the influential individuals

and entities were in the ASLO effort on this particular campus, and what factors would contribute significantly to the improvement of ASLO efforts at this college. In each of the latter cases, data was examined to look for similarities, differences, and patterns of beliefs held by faculty and AOs.

The data collected through the study provided five elements of successful ASLO initiatives that may be of value to campus communities seeking to further develop their assessment efforts. These elements were: that faculty and administrators at the institution studied valued ASLO, with no significant differences between faculty and administrators in beliefs held; that the length of time faculty had taught at the institution had a relationship to differences in beliefs held regarding the use of assessment; that there were significant differences in beliefs regarding the contribution of assessment to teaching and learning between faculty teaching in Associate of Science/Associate of Applied Science (AA/AAS) and Associate of Arts (AA) programs; that the primary driver of the ASLO effort at this campus had been a faculty-led assessment team and the primary influential individual who led the assessment effort was the chief assessment officer; and that, overall, additional faculty development was seen as the dominant factor needed to improve ASLO efforts on this campus. Chapter 5 presents a discussion of the results, implications for praxis in community college settings, and recommendations for future research efforts.

Discussion

One of the underlying assumptions of this study was that understanding differences in beliefs between faculty members and AOs could serve to reduce barriers to embedding ASLO as a means of continuous improvement of student learning and teaching for higher education practitioners. Organizational cultures in institutions of

higher education were affected by institutional mission, programs offered, reputation, admissions policies, and socio-cultural history, including the climate of the relationship between administration and faculty (Evans, 2010). The college studied in this research project had a long history of student centeredness based on its commitment to the learning college concept, as well as significant experience with assessment of student learning outcomes. Significant findings of the study are discussed in the following sections.

Beliefs Regarding the Value of ASLO

As expected, the researcher found no significant differences in beliefs held by faculty and AOs of the college regarding the value of ASLO based on position (faculty versus administrator), locus of program responsibility (AA versus AS/AAS), longevity at the college, or years of involvement in ASLO activities. Faculty and administrators alike at the institution studied valued ASLO – mean scores on the assessment value (AV) composite scale were 63.84 for faculty and 64.19 for administrators, on a scale of 85.

Recent dissertations and practitioner-oriented work from noted assessment scholars validated these findings. Welsh and Metcalf (2003) concluded that both faculty and administrators found value in institutional effectiveness activities, and although Evans (2010) noted significant differences between faculty and administrator attitudes about the importance of institutional effectiveness activities, she reported that those engaged in assessment efforts developed beliefs that the work they were undertaking was valuable. Thus, the alignment of faculty and administrator beliefs in the present study, particularly the agreement between faculty and administrators definitions of ASLO, indicated a common focus and attitudinal orientation toward assessment as a valuable component in teaching and learning paradigms.

The institution studied embraced the learning college paradigm in the mid-1990s, and was well known for its efforts in and emphasis on teaching and learning. As Evans (2010) and Terenzini (2010) contended, the transition from a focus on teaching to a focus on learning enabled faculty to see value in the outcomes assessment process. “If this new paradigm has become embedded,” Evans (2010) wrote, “faculty might be more prepared to engage in outcomes assessment as a valuable tool in understanding the learning process of their students” and thus place higher value on assessment activities (p. 28).

In further support of the notion of shared value for ASLO, definitions of ASLO were also well-aligned on this campus. Five common themes in definitions emerged from this institution as a result of this study. The most prevalent of these definitions were ‘evaluation and documentation’ and ‘measurement of student mastery’ (81.73% of all responses combined). This result paralleled claims made by Terenzini (2010), who posited that common definitions or consensus in the language of assessment was one of the most recurrent barriers to achieving assessment goals for institutions of higher education. The level of agreement and commonality of ASLO definitions evidenced among participants in this study therefore indicated a significant enhancement to the probability of success for ASLO efforts on this campus.

Beliefs Regarding the Use of ASLO

Faculty at the institution studied clearly agreed or strongly agreed with the Assessment of Student Learning Outcomes Beliefs (ASLOB) survey statements that indicated use or development of assessment tools – the overall mean score for faculty on the assessment use (AU) scale was 19.71 and that for administrators was 18.93, of a possible 20.00. Further, no significant difference was observed in this study between

beliefs regarding the use of assessment of learning outcomes held by faculty or administrators based on locus of program responsibility (AA versus AS/AAS assignments) or years of involvement in assessment activities. However, a significant difference was observed for faculty beliefs in the use of ALSO between faculty teaching five or less years and those teaching either 16-21, or 21 years or more. This result suggested that faculty who were newer to the institution held more favorable beliefs toward the use of ASLO to inform teaching and learning.

High levels of beliefs in the use or development of assessment tools was contradictory to Terenzini's (2010) contention that while more than 50% of campuses reported supporting assessment efforts, only about 15% had actually done anything about it. Terenzini also noted that such results clearly implied that most campuses were new to assessment at that time, clearly not the case for the institution studied, which had a long and exemplary history with ASLO and at which the means on the AU composite score were 19.71 (faculty) and 18.93 (AOs) out of a possible 20.00. The significant difference observed for faculty beliefs in the use of ALSO based on time in teaching position was also counter to notions posited by Evans (2010), who contended that faculty were often more satisfied with approaches to assessment the longer they worked for a particular higher education institution.

Beliefs Regarding the Impact of ALSO on Teaching and Learning

All faculty and administrators participating in this study, those with responsibilities in AA, AS/AAS, or both programs, believed strongly that ASLO informed teaching and improved student learning. However, as one would expect, significant differences were found between AA and AS/AAS faculty for both questions, with AS/AAS believing more strongly than did AA faculty that ASLO informed teaching and improved learning.

Evans (2010) found that faculty who were truly engaged in assessment believed that improvement of student learning was the primary motivator for assessment work. Similarly, Suskie (2004) argued that many faculty ascribed to Barr and Tagg's (1995) 'learning centered paradigm' and O'Banion's (1999) notion of the 'learning college,' and that within the learning paradigm, faculty needed and sought feedback to understand what worked (and did not work) to maximize student learning. This finding was also echoed in the work of Boorstein and Knapp (2005), who contended that for liberal arts and general education faculty, the assessment process became 'messy,' as AA faculty members were often unwilling to conceptualize courses in terms of learning outcomes, rather than the content coverage frequently seen in AS/AAS programs. Welsh and Metcalf (2003) also inferred that "faculty in disciplines that have accreditation, licensure, and/or certification obligations might be more favorably disposed toward institutional effectiveness activities because of their familiarity with accountability measures" (p. 461).

These conclusions also substantiated notions prevalent across the literature that careful planning and process design allowed faculty to see the benefits of ASLO to teaching and learning, thus continuous program assessment and evaluation could be successfully embedded into departmental cultures in sustainable and effective ways (Dues et al., 2008; Boorstein and Knapp, 2005). Faculty involvement in assessment efforts was described as being among "the most enduring themes of the higher education assessment movement – a kind of gold standard widely understood as the key to assessment's impact 'on the ground' where teachers and students meet" (Hutchings, 2010b, p. 1). As the data in this study demonstrated, faculty and AOs at the

institution studied valued ASLO given their beliefs in its use and their efforts to undertake ASLO activities as a means of improving student learning.

Influential Individuals in the ASLO Process

Faculty and AOs at this college believed that a faculty-driven assessment team was the primary entity responsible for institutional ASLO efforts, with administrators believing this slightly more strongly than did faculty. Interestingly, while participants believed that a faculty-driven assessment team was the overall driver of ASLO at this college, both faculty and AOs reported that the chief assessment officer was the primary individual responsible for successful ASLO efforts at the institution.

The identification of a faculty-led assessment team as the primary driver of the assessment effort on this campus came as no surprise. Such a finding aligned with Polumba and Banta's (1999) contention that empowerment of faculty leadership in the student learning outcomes assessment process and overcoming faculty resistance were critical factors in the long-term institutionalization of any assessment initiative. Evans (2010) also noted that institutional support for assessment activities had a direct relationship to faculty satisfaction with assessment processes. Evans' findings demonstrated that campus-wide institutional structures such as steering committees, task forces, or faculty governance committees were predictors of such satisfaction.

Evans (2010) validated the identification of the chief assessment officer as most influential individual in the ASLO process with her contention that administrative leadership established a vision for a culture of assessment in which faculty were engaged, advocated for faculty engagement with assessment, allocated resources and faculty time to bring that vision to life, demonstrated a desire that assessment occur, and highlighted and made visible the process of developing an assessment plan. Evans

also added, however that such leaders “don't actually do the work itself … [they] create a climate conducive to assessment work by faculty and attempt to overcome perceived faculty resistance to participation through institutional factors that promote faculty involvement and satisfaction with outcomes assessment processes” (2010, p. 42).

Administrators at the institution studied appeared to have created such a culture of evidence connected to teaching and learning improvement. As Hadden and Davies (2002) substantiated, partnerships between faculty and academic administration at the institution studied have thus aided in the development of assessment efforts that directly improved student learning and informed teaching.

Significant Factors Leading to Improvement of ASLO

The final research question of this study was designed to test the alignment of faculty and administrator beliefs at this institution with the assertions of Hutchings’ (2010a) recommendations for improving ASLO in higher education settings. Findings at this college indicated that space and time needed to be created in ongoing faculty development for assessment issues, and that faculty development was the dominant factor that led to improved ASLO efforts. The need for additional faculty development and training for *doing* ASLO was reported most frequently by faculty, while additional faculty development and training for *using* ASLO data was reported second overall and most frequently by administrators. A second group of factors found to be important to improvement of ASLO at this college included sustained campus conversations regarding teaching and learning, additional institutional rewards for assessment activities and scholarship, and stronger faculty leadership in the process.

The finding regarding the need for additional faculty development was aligned most closely with Hutchings’ (2010a) contentions that successful assessment efforts

made ASLO part of the ongoing work of the faculty and made a place for assessment work on the faculty development agenda. Evans (2010) also validated this finding suggesting that lack of faculty understanding, training, and development that supported assessment created barriers to active and sustained involvement. Hutchings (2010b) suggested that these factors pointed to a need to bring assessment processes into more complete alignment with the ways that college faculty and administrators worked, thought, and talked. Thus, assessment of student learning outcomes became an integral part of everyday routines.

Implications for Higher Education Practitioners

Institutional effectiveness in higher education and its components – assessment, accreditation, and accountability – were a constantly evolving issue for U.S. higher education institutions in the late 20th and early 21st centuries (Head, 2011; Ebersole, 2007). Understanding differences in beliefs between faculty members and AOs would serve to reduce barriers to embedding assessment of student learning outcomes as a means of continuous improvement of student learning for higher education practitioners. Consistencies and patterns of beliefs that emerged from an institution known for its assessment efforts would also provide demonstrated success strategies informing institutional, system, or statewide formation of common benchmarks for assessment of student learning outcomes in other areas of the country.

Such information would provide institutions less far along in the process of embedding student learning outcomes assessment into their organizational cultures with a resource to cost-effectively implement such initiatives. Several findings that materialized in this study may inform assessment efforts at other institutions of higher education. However, it was important to note that this was a single, embedded case

study offered as an example of an institution long known as a learning college and as an exemplar of assessment of student learning outcomes activities.

As Hutchings (2010a, 2010b), Evans (2010), and others noted, engagement of faculty was critical to the success of any ASLO effort. Such engagement, Evans (2010) reported, was based on whether or not faculty and administrators viewed assessment work as a contribution to improved student learning, or as a means of demonstrating accountability to external examiners. Findings in this study indicated alignment between faculty and administrators concerning the value of assessment, which developed at this institution during more than a decade of concerted all-campus work (Chief Assessment Officer, personal communication, March 15, 2011). Institutions seeking to determine the state of readiness for next steps in ASLO efforts may utilize the ASLOB survey as a means of assessing such readiness or of isolating resistance issues on their campuses.

The value of allocation of resources to assessment efforts could not be understated and was an expression, to both internal and external stakeholders, of an institution's values, priorities, and culture (Kuh and Ewell, 2010). Evans (2010) clarified this contention in stating that if institutions wanted faculty members to engage in ASLO, resources must be made available and support from leaders provided to create opportunities for faculty to learn about assessment work and to lead assessment processes. Findings from this study confirmed that faculty development for both accomplishing assessment and using assessment to improve learning were most important to improving ASLO. Broadly-based development and training opportunities would also provide a platform for shared language for, definitions of, and rubrics to guide ASLO efforts. As Evans (2010) noted, creating institutional cultures that value

learning about assessment and strong leadership in improvement of student learning would enable faculty to value outcomes assessment as an improvement process, and thus would encourage its application.

A clear influential individual who led of assessment efforts was identified at the institution studied as a result of this research effort. Influential individuals articulated vision and offered compelling reasons to undertake assessment activities (Haviland, 2009), as well as facilitated processes that placed assessment into a frame of scholarly inquiry, rather than accreditation mandate. At the institution studied, this individual was the college's Chief Assessment Officer, who operated as a functional member of multiple cross-campus committees and organizational entities connected to assessment, teaching, and learning. According to Haviland (2009), "Institutional leaders and assessment professionals have a great influence on whether and how faculty members engage with assessment, and whether a meaningful assessment culture thrives, compliance-focused assessment practice limps along, or the effort fails." Such leaders were systems thinkers and coalition builders, Haviland stated; they brought people together and built cross-functional partnerships that supported assessment work. This broad engagement of as many faculty and staff as possible was vital to gaining support for and ownership of assessment processes, and made this leadership role critical, whether it was centered in a faculty committee or an administrative support unit.

Mobilizing support for ASLO efforts was a difficult, but crucial task for any assessment effort according to Terenzini (2010). Campuses that do not already have a clearly designated and empowered office responsible for coordinating the wide variety

of individuals required for effective ASLO efforts may wish to consider such an option. The impact of such an office on traditional reporting lines and structures should, as Terenzini cautioned (2010), be carefully considered in light of existing campus culture and social networks. Such an office, in coordination with an 'assessment leader,' would provide the structure and support to realize the benefits of assessment, which was the case at the institution studied.

Recommendations for Future Research

Recommendations for future lines of inquiry and research emerged throughout the process of this study. The research literature on assessment, generally and specific to student outcomes, was replete with practitioner recommendations and pragmatic applications regarding faculty engagement and involvement in the ASLO process (Hutchings, 2010a). However, gaps remained in the literature related to empirical studies of faculty beliefs and attitudes regarding the process (Evans, 2010a). The following lines of research would prove valuable to higher education practitioners.

Extending the Line of Inquiry at the Institution Studied

Much remained to be learned from the college that was the focus of the present study. Additional research recommendations for future lines of inquiry at this site were comprised of the following.

Given the limited sample size in this study, further data collection and analysis efforts that examined relationships in beliefs held regarding value and use of ASLO between divisions and departments of the college, with an eye toward examining disciplinary differences, were needed. According to George Kuh, Director, National Institute for Learning Outcomes Assessment, an examination of disciplinary and departmental differences was one of the next steps in the NILOA research agenda, so

further study on this campus would contribute toward that effort (G. Kuh, personal communication, April 1, 2011).

A series of qualitative, structured interviews should also be undertaken that explore more deeply the processes and practices implemented by this college that enabled the institution to reach the level of consensus currently in place regarding the value and use of ASLO.

Additional research questions focused on this institution should focus on how data collected through the ASLO effort was specifically used to inform policy and strategic planning, or improve teaching and learning. Whether or not the use of ALSO data has improved overall institutional effectiveness, from teaching and learning to resource allocation and policy decisions, would also serve as an additional research question. As Manning (2011) noted, the critical piece of the assessment circle was not that an institution had undertaken assessment efforts, but rather that the results of that assessment were used to inform action or policy.

Additional research at the institution studied could be undertaken to determine what assessment instruments, or combinations of measures, are in use and if those sources of evidence aligned with or differed from commonalities in the literature. Assessment practitioners, faculty and administrators alike have developed an array of assessment tools and strategies for measuring student learning outcomes (Volkwein, 2010a), so alignment of tools and strategies at this institution with other best practice institutions would prove useful.

Finally, the 21.1% faculty response rate this institution was important to note and indicated potential non-response bias in the study. Higher response rates, according to

Shih and Fan (2009), were seen as desirable given that a higher response rate provides for less potential non-response bias. However, Fowler (2009) concluded that "altogether, we have clear evidence that nonresponse can effect survey estimates, but we usually lack the information to reliably predict when, and how much, nonresponse will or will not affect survey estimates" (p. 54). Further exploration of the beliefs held by those who did not participate in this study was clearly an area for an additional line of inquiry at the institution studied.

Further Research in the Broader ASLO Context

This study focused on a single southeastern community college known for its long-term commitment to and engagement in assessment of student learning, and as an exemplar of learner-centered initiatives. Questions for broader research efforts would include replication of this study in differing contexts to examine other similar (or dissimilar) institutions.

- Was the alignment of faculty and AO beliefs on the assessment value (AV) and assessment use (AU) composite scales at other community colleges similar to those seen in this case? Were composite scale values affected by type or size of institution, organizational or governance structure, presence of faculty unions, location, or population served?
- Did faculty beliefs regarding the value and use of ASLO differ by department or discipline? Were those differences affected by type or size of institution, organizational or governance structure, presence of faculty unions, location, or population served?
- What best practice models existed for assessment of student learning outcomes and what were the factors related to the transferability of those models between institutions?
- What were the costs, real and opportunity, of assessment efforts at best practice institutions?
- How were institutions of higher education utilizing assessment data to improve practice or enhance student learning, and what methods of documentation were being used to demonstrate that use?

Final Summary

Existing research has not focused on how and why faculty and academic administrators place value on assessment of student learning outcomes, and a gap existed in the current literature on this topic. Research describing "administrative and faculty understanding of, commitment to, and engagement in the assessment-of-learning process" was suggested by Rothgeb (2008, p. 134); thus, it was expected that this study would contribute toward filling that gap.

Previous findings by Welsh and Metcalf (2003) found differences in the likelihood that academic administrators would view institutional effectiveness activities, including assessment, differently than faculty. The findings of the present research indicated that beliefs of faculty and AOs regarding the value and use of ASLO were more closely aligned than not at the institution studied. The question that appeared across the literature involved whether or not assessment of student learning outcomes was simply another ephemeral management fad, or whether or not these efforts could become embedded into cultures of learning and teaching that embodied the notions of O'Banion's learning college. As Hutchings wrote, "it is striking how quickly assessment can come to be seen as part of 'the management culture,' rather than as a process at the heart of faculty's work and interactions with students" (Hutchings, 2010, p.9).

The results of this research effort and experience of the institution studied indicated that assessment can be institutionalized and used a catalyst for true learner-centered educational gains and improvement. Shared vision, developed through sustained faculty involvement, administrative vision and support, as well as institutional commitment, were the drivers of such successful assessment programs.

APPENDIX A
HUBA AND FRIED'S KEY QUESTIONS

1. Does assessment lead to improvement so that the faculty can fulfill their responsibilities to students and to the public?

2. Is assessment part of a larger set of conditions that promote change at the institution?

3. Does it [assessment] provide feedback to students and the institution?

4. Does assessment focus on using data to address questions that people in the program and at the institution really care about?

5. Does assessment flow from the institution's mission and reflect the faculty's educational values?

6. Does the educational program have clear, explicitly stated purposes that can guide assessment in the program?

7. Is assessment based on a conceptual framework that explains relationships among teaching, curriculum, learning, and assessment of the institution?

8. Do the faculty feel a sense of ownership and responsibility for assessment?

9. Do the faculty focus on experiences leading to outcomes as well as on the outcomes themselves? Is assessment ongoing rather that episodic?

10. Is assessment cost-effective and based on data gathered from multiple measures?

11. Does assessment support diversity efforts rather than restrict them?

12. Is the assessment program itself regularly evaluated?

13. Does assessment have institution-wide support?

14. Are representatives from across the educational community involved?

Rothgeb (2008, citing Huba & Fried, 2000, pp. 68-85, used with permission).

APPENDIX B
COMPARATIVE DIMENSIONS OF SUCCESSFUL ASSESSMENT PROGRAMS

Huba & Freed's Questions	AAHE's Nine Principles	C-RAC's Principles of Good Practice	Suskie's Five Dimensions
Does assessment lead to improvement so that the faculty can fulfill their responsibilities to students and to the public?	Through assessment, educators meet responsibilities to students and to the public.		Good assessments inform important decisions, curricular and pedagogical improvement, also planning, budgeting, and accountability.
Is assessment part of a larger set of conditions that promote change at the institution?	Assessment is most likely to lead to improvement when it is part of a larger set of conditions promoting change.	Institution uses broad participation to reflect upon learning outcomes and build commitment to improvement.	
Does it [assessment] provide feedback to students and the institution?		Evidence is complementary and demonstrates impact of the institution on the student.	Good assessment yields accurate and truthful results of sufficient quality to allow confident decision-making about curricula and pedagogy.
Does assessment focus on using data to address questions that people in the program and at the institution really care about?	Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.	Evidence is collected from multiple sources and includes effects of both intentional and unintentional learning experiences.	
Does assessment flow from the institution's mission and reflect the faculty's educational values?	The assessment of student learning begins with educational values	The centrality of student learning is evidenced in the institutional mission.	Good assessments focus on and flow from clear and important goals.
Does the educational program have clear, explicitly stated purposes that can guide assessment in the program?	Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes.	Sets clear learning goals that speak to both content and level of attainment.	
Is assessment based on a conceptual framework that explains relationships among teaching, curriculum, learning, and assessment of the institution?	Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.		
Do the faculty feel a sense of ownership and responsibility for assessment?			
Do the faculty focus on experiences leading to outcomes as well as on the outcomes themselves?	Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes.		
Is assessment ongoing rather than episodic?	Assessment works best when it is ongoing not episodic.	Applies collective judgment as to the meaning and utility of evidence and uses evidence to improve programs.	
Is assessment cost-effective and based on data gathered from multiple measures?		Collects evidence of goal attainment using appropriate assessment tools.	Good assessments are cost effective, yielding value that justifies time and expense.
Supports diversity efforts rather than restricting them?			
Is the assessment program itself regularly evaluated?			
Does assessment have institution-wide support?			Good assessments are valued.
Are representatives from across the educational community involved?	Assessment fosters wider improvement when representatives from across the educational community are involved.	Collection, interpretation, and use of student learning outcomes is a collective endeavor.	

Rothgeb (2008, adapted with permission).

APPENDIX C
ASSESSMENT OF STUDENT LEARNING OUTCOMES BELIEFS (ASLOB) SURVEY

Assessment of Student Learning Outcomes Beliefs

Informed Consent

Please read this consent document carefully before you decide to participate in this study.

The purpose of this study is to examine the relationship between faculty and administrator beliefs regarding the value that assessment of student learning outcomes adds to the improvement of student learning at a southeastern community college.

You will be asked to complete a brief, Internet-delivered survey instrument. Three questions will ask you to identify your primary department, primary audience, and state the number of years you have worked at the college. You will be asked to provide your definition of 'assessment of student learning outcomes' and answer several open-ended questions regarding assessment. The remaining questions will ask you to describe your level of agreement with statements related to beliefs and practices regarding assessment of student learning outcomes at the individual, departmental, programmatic, and institutional level. A Likert-type scale ranging from "strongly disagree" to "strongly agree" will be used to provide your level of agreement with statements. The time required is approximately 10 minutes.

The researcher believes that the risk of harm to participants in the proposed research study will not exceed that which is ordinarily encountered in daily life or through routine physical or psychological examinations or tests. There is no compensation for participation in this study.

The researcher will take great care to protect the identities of all participants, and ensure confidentiality to the extent provided by law. Your information will be assigned a code number. Names and identifiable information will not be used in any results reported.

Participation in the study is completely voluntary; there is no penalty for non-participation. You have the right to withdraw from the study at any time without consequence.

If you have questions about the study, please contact: Toni Strollo Holbrook, Doctoral Student, College of Education, School of Human Development and Organizational Studies in Education, Educational Administration and Policy; P.O. Box 117049 Gainesville, FL 32611-7049; phone: (407) 898-3158; or David S. Honeyman, Ph.D., Doctoral Supervisor, College of Education, School of Human Development and Organizational Studies in Education, Educational Administration and Policy; P.O. Box 117049 Gainesville, FL 32611-7049; phone: (352) 273-4315

If you have questions about your rights as a research participant in the study, please contact: IRB-02 Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone (352) 392-0433.

Approved by University of Florida Institutional Review Board 02 (IRB-02), Protocol #2010-U-0634, for use through 07-12-2011, and XXXXXXXXXXXXXXX College Human Research Protection (HRP) Institutional Review Board (IRB), Protocol #11-006, for use through 12-30-10.

*** 1. Agreement: I have read the procedure described above. By clicking the radio button below, I voluntarily agree to participate in the procedure and acknowledge that I have received a copy of this description.**

- [ ] I acknowledge that I received a copy of this informed consent document and voluntarily agree to participate in this study.
- [ ] I prefer not to participate at this time.

Assessment of Student Learning Outcomes Beliefs

This first series of questions asks you to provide general information on your primary department, primary audience, and the number of years you have been working and involved with assessing student learning in that area. Please keep this frame of reference in mind as you complete the remainder of the survey.

*** 2. I consider my position at the college as primarily a:**

- ◯ Faculty member, tenured
- ◯ Faculty member, non-tenured
- ◯ Faculty member (tenured or non-tenured) with administrative duties (i.e., department or division chair)
- ◯ Executive, Administrative, or Professional Staff
- ◯ Executive, Administrative, or Professional Staff with occasional teaching duties
- ◯ Other (please specify):

3. My primary audience is:

- ◯ Associate of Arts (A.A.) university parallel degree
- ◯ Career and Technical (A.A.S./A.S.) degree
- ◯ Both
- ◯ Other not described above:

4. My primary responsibilities are in the department of (please click the 'arrow down' button and select one primary assignment):

Other (please specify):

5. I have been working at this college for:

- ◯ 5 years or less
- ◯ 6-10 years
- ◯ 11-15 years
- ◯ 16-20 years
- ◯ 21 years or more

Assessment of Student Learning Outcomes Beliefs

6. I have been involved with assessment of student learning outcomes for:

- ◯ 5 years or less
- ◯ 6-10 years
- ◯ 11-15 years
- ◯ 16-20 years
- ◯ 21 years or more
- ◯ I am not involved with assessment of student learning outcomes

Assessment of Student Learning Outcomes Beliefs

Please keep your primary role at the college in mind and provide your definition of 'assessment of student learning outcomes' below. Then, still with your primary role as a frame of reference, describe your level of agreement with the statements provided as related to your personal beliefs regarding assessment by checking the appropriate scale choice.

7. My definition of "assessment of student learning outcomes" is (please write in):

8. Assessment of student learning outcomes generally leads to improvement of teaching and learning, allowing faculty and instructors to fulfill their responsibilities to students and to the public.

	Strongly Agree	Agree	Neutral	Disagree	Stongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

9. The process of developing and assessing student outcomes helps to IMPROVE TEACHING at my college.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

10. The process of developing and assessing student learning outcomes helps to IMPROVE STUDENT LEARNING at my college.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

Assessment of Student Learning Outcomes Beliefs

Keeping your primary role at the college in mind as a frame of reference, describe your level of agreement with the statements below related to your beliefs and practices regarding assessment of student learning outcomes for the departments and programs with which you are involved.

11. My department(s) and/or educational program(s) has/have clear, explicitly stated purposes that guide assessment of student learning outcomes.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

12. Faculty in my department(s) and/or program(s) collectively DEVELOP quantifiable and measurable student learning outcomes for PROGRAM(S) offered.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

13. Faculty in my department(s) and/or program(s) ASSESS quantifiable and measurable student learning outcomes for PROGRAMS(S) offered.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

14. I personally DEVELOP quantifiable and measurable student learning outcomes for the COURSES I teach.

	Strongly Agree	Agree	Neutral	Diasgree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

15. I personally ASSESS quantifiable and measurable student learning outcomes for the COURSES I teach.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

Assessment of Student Learning Outcomes Beliefs

Keeping your primary role at the college in mind as a frame of reference, please describe your level of agreement with the statements below related to your beliefs and practices regarding assessment of student learning outcomes by checking the appropriate scale choice.

16. My college has a common set of student learning outcomes that apply to all students.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

17. My college's mission statement utilizes language that makes reference(s) to assessment of student learning outcomes.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

18. Assessment of student learning outcomes is a part of a larger set of conditions that promote organizational change at this college.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

19. Assessment of student learning outcomes is a part of an institutional commitment to quality and continuous improvement at my college.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

20. Student learning outcomes assessment has institution-wide support at my college.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

21. Representatives from across the college community are involved with assessment of student learning outcomes at my institution.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

Assessment of Student Learning Outcomes Beliefs

Please answer the following questions related to your institutional experience in implementing assessment of student learning outcomes processes. Please keep your role at the college in mind as a frame of reference.

22. The assessment of student learning outcomes effort at my college is/has been championed by (please check all that apply):

- [ ] A cross-functional campus team
- [ ] A faculty-driven assessment team
- [ ] Our institutional research office
- [ ] My department chair
- [ ] My division chair(s)
- [ ] Our dean(s)
- [ ] Our vice president(s)
- [ ] Our president
- [ ] Other (please specify):

23. Please name the one individual or office that you believe has been most influential in creating an assessment of student learning outcomes climate on your campus.

Assessment of Student Learning Outcomes Beliefs

Keeping your primary role at the college in mind as a frame of reference, please describe your level of agreement with the statements below related to your beliefs regarding institutional assessment of student learning outcomes practices by checking the appropriate scale choice.

24. Assessment of student learning outcomes provides feedback to students and the institution.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

25. Assessment of student learning outcomes is ongoing rather than episodic at my college.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

26. Assessment of student learning outcomes is a cost-effective process at my college.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

27. Student learning outcomes assessment is based on data gathered through multiple measures at my college.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

28. Assessment of student learning outcomes focuses on using data to address questions that people in departments, programs, and institution really care about.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

29. I believe that assessment of student learning outcomes work is a good use of my time.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

Assessment of Student Learning Outcomes Beliefs

Again, keeping your primary role at the college in mind as a frame of reference, please describe your level of agreement with the statements below related to your beliefs about faculty engagement in assessment of student learning outcomes at your institution by checking the appropriate scale choice.

30. The assessment of student learning outcomes process reflects the faculty's educational values at my institution.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

31. Faculty at my institution feel a sense of ownership and responsibility for the assessment of student learning outcomes at my institution.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Don't Know
Choose One:	◯	◯	◯	◯	◯	◯

Assessment of Student Learning Outcomes Beliefs

32. Which of the following factors would contribute to a more effective assessment of student learning outcomes effort at your college? (Please check all that apply.)

- [ ] Additional faculty development/training for doing assessment
- [ ] Additional faculty development/training using using assessment data
- [ ] Additional faculty engagement in the process
- [ ] Sustained campus conversations about student learning
- [ ] Stronger faculty leadership role in the assessment process
- [ ] Additional institutional rewards for assessment work and scholarship
- [ ] Greater resources for new tools and technologies of assessment
- [ ] None of the above
- [ ] Don't know
- [ ] Other (please specify):

Assessment of Student Learning Outcomes Beliefs

33. Would you be willing to be contacted for a follow-up conversation to explore your survey responses in more depth? If so, check 'Yes' and you'll be directed to a screen where you may provide your contact information.

- ◯ Yes
- ◯ No

Assessment of Student Learning Outcomes Beliefs

34. Please provide your contact information for follow-up interviews.

Please remember that all information will remain completely confidential.
The researcher will take great care to protect the identities of all participants, as well as that of the college, and ensure confidentiality to the extent provided by law.

First Name

Last Name

E-mail Address

Telephone

Best Times

Assessment of Student Learning Outcomes Beliefs

Thank You!

Thank you for taking the time to participate in this survey. Your response is critical to the success of my dissertation research project and is greatly appreciated.

If you wish to receive a summary response of the survey results, please send a request to tsholbrook@ufl.edu and an electronic copy will be provided to you as soon as it is available.

APPENDIX D
LETTER OF PERMISSION FOR INSTRUMENT AND FRAMEWORK USE

Subject **Re: Request for Permission to Replicate Study**
Sender Ray Rothgeb <rdrothgeb@cableone.net>
Recipient Toni Strollo Holbrook <tsholbrook@ufl.edu>
Date 09/16/2010 11:48 AM

WebMail 2.0

Dear Ms. Holbrook,

Thank you for your interest in my research. It was Senge's "The Fifth Discipline" and O'Banion's "The Learning College" that sparked my interest in Institutional Effectiveness, out of which a focus on Assessment of Learning emerged. I applaud your efforts and grant permission to utilize the framework and the ASLPS instrument. I would be most interested in your use of both and your findings. Feel free to e-mail if you have questions.

Good luck,
Ray Rothgeb, Ph.D.

On Tue, Sep 14, 2010 at 6:42 AM, Holbrook,Toni Strollo <tsholbrook@ufl.edu> wrote:

Dear Dr. Rothgeb:

My name is Toni Strollo Holbrook and I am a doctoral degree candidate in higher education administration at the University of Florida and Associate Dean for Academic Administration at Rollins College in Winter Park, Florida. From the start of my doctoral studies, I have had an interest in Peter Senge's work on learning organizations and its interesting connections to Terry O'Banion's concept of learning colleges. From that interest grew a doctoral dissertation research emphasis on organizational culture in higher education and its relationship to assessment of student learning outcomes aimed at improving learning for learners, facilitators of learning, and educational institutions.

More than a year ago, I began my search for a doctoral research topic and accompanying literature review, and discovered your Ph.D. dissertation, *An Exploratory Study of Community College Assessment-of-Learning Programs in the Higher Learning Commission Region*. Your study informed much of my thinking on assessment of student learning outcomes for improvement, rather than accountability. It led me on to the writings of Astin, Angelo, Banta, Ewell, Volkwein, Suskie, Huba and Freed, and, most recently, Maki, Hutchings, and the work of the National Institute for Learning Outcomes Assessment (NILOA). Yet, after all of my reading and research, I returned time and again to many of the same questions you articulated in your study regarding factors that allow assessment of student learning outcomes 'to work' -- to improve learning -- at educational institutions: faculty and administrator commitments to assessment for improvement, organizational culture, readiness, resources, or pressure from accreditors.

Thus, the purpose of my overly-long missive is the following respectful request. I would like, with your permission of course, to utilize your excellent Huba and Freed framework (with some updates) and your ASLPS instrument to replicate, albeit it loosely, your study at a single southeastern community college known for its commitment to the learning college concept. In doing so I hope to explore the relationships, if any, between faculty and administrator beliefs regarding assessment of student learning outcomes, as well as attempt to elucidate the impact of key leadership and organizational culture as drivers of successful assessment efforts at a Southern Association of Colleges and Schools (SACS) institution. My methodology will be blended, quantitative surveys and in-depth qualitative interviews, so not an exact replication, but I would like to borrow loosely from your study and, as my faculty supervisor is known to say, 'drill into the eye of the gnat' through an embedded case study to see if this SACS institution's practices exemplify, as you noted in your dissertation, what Banta described as a 'receptive institutional culture for assessment.' If you would like to review my preliminary introduction or methodology chapters, or my draft surveys, to assist in you in granting permission to replicate, I would be more than happy to do share those with you.

I appreciate your consideration of this request and look forward to hearing from you. If you would prefer that I contact you by phone, I am happy to do so, please let me know a convenient time and telephone number where I may reach you.

With all best regards,
Toni Strollo Holbrook

_____
Toni Strollo Holbrook
LEAD Doctoral Cohort
Higher Education Administration
College of Education
University of Florida

APPENDIX E
ASLOB INVITATION TO PARTICIPATE AND SUBSEQUENT E-MAIL MESSAGES

To: [Email Address]
From: tsholbrook@ufl.edu
Subject: Dissertation Study: Assessment of Student Learning Outcomes

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Dear XXXXXX XXXXXX Faculty and Administrators:

My name is Toni Strollo Holbrook and I am a doctoral student in higher education administration at the University of Florida. I am working under the supervision of Dr. David Honeyman and in collaboration with Mr. XXXX XXXX, XXXXXXX XXXXXX's Assistant Vice President for XXXXXX XXXXXX XXXXXX.

My dissertation study is an investigation of the relationship between faculty and administrator beliefs regarding the value of student learning outcomes assessment in the community college setting. The study utilizes a mixed methods approach and begins with a short survey, which will not take more than 10 to 15 minutes of your time. After the survey data are examined, selected individuals will be asked to participate in follow-up telephone interviews. Confidentiality will be maintained throughout the study and only the researcher will be aware of responses.

Since this this study focuses on a single institution, a high response rate is critical, and your participation is most valuable and appreciated. Please access and complete the survey by not later than December 10th by clicking this link: http://www.surveymonkey.com/s.aspx . The link is uniquely tied to the survey and your e-mail address, so please do not forward the message. Complete information regarding your participation, and protection as a participant in the study, appears as the first screen of the instrument.

Thank you for your participation! Your responses are vital to the success of my dissertation research. Further, I hope that the results of this study will provide community college practitioners with an understanding of the institutional human factors required to support and sustain the success of assessment of student learning outcomes programs.

If you have any questions related to this study, please feel free to contact me at the e-mail address below.

Sincerely,
Toni Strollo Holbrook
Doctoral Candidate
University of Florida
College of Education
tsholbrook@ufl.edu

Please note: If you do not wish to receive further e-mail regarding this study, please click the link below, and you will be automatically removed from the mailing list.
http://www.surveymonkey.com/optout.aspx

To: [Email Address]
From: Toni Strollo Holbrook <tsholbrook@ufl.edu>
Subject: Reminder: Dissertation Survey Invitation

Dear XXXXXX XXXXXX College Faculty and Administrators:

Earlier this month, I e-mailed you to ask for your participation in an Assessment of Student Learning Outcomes Beliefs survey I am using to complete dissertation research at the University of Florida. Your response to the survey is important to the success of my research effort, so I am again forwarding you the initial invitation (below) and link to the survey instrument -- http://www.surveymonkey.com/s.aspx -- to ask for your participation.

The survey link will remain active for another few weeks and I will remind you again in a week's time in the hope that you will be willing to share your opinions. Completion of the survey instrument should take no more than 10-15 minutes of your time.

I remain grateful for your support of this study and my research effort, especially at this very busy time of year.

With all best regards,
Toni Strollo Holbrook
Doctoral Candidate
University of Florida
College of Education
tsholbrook@ufl.edu

(The December 1, 2010, Invitation to Participate message was reprinted here.)

To: [Email Address]
From: tsholbrook@ufl.edu
Subject: Please Complete the Assessment of Student Learning Outcomes Survey

---

Dear XXXXXX XXXXXX Faculty and Administrators:

Last month was a busy time for everyone in higher education, and I realize how valuable your time was at the end of term. I am hoping you might spare 10-15 minutes of time before spring classes begin to share your opinions on assessment of student learning outcomes via a brief survey that is part of my dissertation research at the University of Florida.

Your response to the survey is very important, so I am writing again to urge you to please participate. I plan to close the study in the next 10 days, so am e-mailing everyone who has not yet responded. The initial survey invitation sent December 1 appears below and the survey instrument may be accessed at this link: http://www.surveymonkey.com/s.aspx . Simply click on the link to open the survey (or copy and paste the link into your Internet browser).

Thank you in advance for your support of this study and my research effort. Your responses are important and the best source of information on faculty and administrator beliefs regarding assessment of student learning outcomes.

With all best regards,
Toni Strollo Holbrook
Doctoral Candidate
University of Florida
College of Education
tsholbrook@ufl.edu

(The December 1, 2010, Invitation to Participate message was reprinted here.)

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BIOGRAPHICAL SKETCH

Toni Marie Strollo was, at the time of this writing, Associate Dean for Academic Administration in the College of Arts and Sciences at Rollins College, Winter Park, Florida. Before and after earning her undergraduate degree from University of Florida in 1982, she served as a public information officer at Santa Fe Community (now State) College in Gainesville, Florida. In 1983, she joined Academic Press, the scientific and technical book division of then Harcourt Brace Jovanovich Publishers, as an international marketing liaison. In 1990, Strollo was appointed associate director of grants and contracts at Rollins, and, in 1993, shifted her focus from resource development to academic administration for the undergraduate liberal arts program.

Strollo earned her M.B.A. with honors from the Rollins College Crummer Graduate School of Business in 1997, with concentrations in non-profit management and marketing. She was a member of Beta Gamma Sigma, the international honor society for business programs accredited by AACSB International, and Omicron Delta Kappa, the national college honor society which recognizes meritorious leadership and service.

In 2007, Strollo was awarded an Association for Institutional Research (AIR) National Center for Education Statistics (NCES) Graduate Fellowship to support her doctoral studies. She was named an AIR/NCES/National Science Foundation (NSF) Summer Data Policy Institute Fellow in 2010. Strollo completed doctoral studies in higher education administration at the University of Florida in August 2011, earning the Ed.D. Her research interests focus on institutional effectiveness in learner-centered higher education, leadership studies, student persistence and success, and the assessment of student learning outcomes.