PROGRAM ASSESSMENT AND CULTURE CHANGE:
UNDERSTANDING ORGANIZATIONAL CULTURE CHANGE RESULTING FROM
THE DEVELOPMENT AND IMPLEMENTATION OF STUDENT LEARNING
OUTCOMES ASSESSMENT AT THE PROGRAM LEVEL

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Kathryn S. Regjo
DEDICATION

To my mentor, Julie Smith, who believed I was ready for the adventure.

To my loving husband Daniel, and my children Luka and Ella, who gave me strength to pursue it.

And, to my mom and dad, Kathryn and Richard, who walked alongside the entire time.

May we all have many more adventures together.
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ABSTRACT

PROGRAM ASSESSMENT AND CULTURE CHANGE:
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Kathryn S. Regjo
Mary-Linda Armacost

The following explores the phenomenon of perceived organizational culture change resulting from involvement in the establishment of program-level student learning outcomes assessment at colleges and universities. The goal of the research was to understand what elements of organizational culture may have changed on the part of the faculty and administration during the assessment development and implementation process, and how the combined effects may have shifted elements of organizational culture.

Two primary research questions guided the exploration of perceived organizational culture change. The first question focused on how the process of developing and implementing plans to assess student learning at the program level influences the attitudes, behaviors, values, and practices of faculty. The second question considered ways in which the assessment initiative changed or affected the program’s organizational culture.

Critical to answering these research questions for each program studied was an understanding of the assessment development and implementation process. Further, it
was important to identify and comprehend those decisions perceived most influential on
the organizational culture of the program’s faculty and administration.

The review of current knowledge supported and focused on research from the
following four areas:

1. a basic history of assessment and the role of accreditation;
2. perceived cultural conflicts associated with assessment;
3. institutional interpretations of assessment; and,
4. research on organizational culture and the change process most relevant to
   higher education.

The researcher used the qualitative method of case study analysis and focused on
efforts at three private liberal arts institutions. Selected from each institution were two
programs of study that have successfully established learning goals and methods to
measure student learning.

Across the three institutions and six programs studied, common themes and
unique features emerged relative to the process of assessment development and the
elements indicative of organizational culture change. Further, general assertions emerge
concerning how the program’s efforts affect attributes of organizational culture.

Both faculty and administrators may benefit from the conclusions of the research.
Individuals charged with demonstrating academic integrity as well as those involved in
the decision-making process regarding measuring student learning may also find the
research valuable.
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CHAPTER ONE: INTRODUCTION

Background, Purpose and Overview

Background

Increased pressure from the public, the federal government, and regional accrediting agencies has been a catalyst for a growing lexicon of ubiquitous educational terminology. The terms “quality,” “accountability,” and “assessment” become equally ambiguous concepts such as “continuous quality improvement,” “accountability measurement,” and “culture of assessment.”

While these terms have been in existence within higher education for decades, pressure to address their meaning through specific actions has increased. The demand for greater evidence of institutional effectiveness from the public as well as state and federal governments resulted in every regional accrediting body creating standards specifying assessment of student learning.

Higher education has chosen to address the demand for increased evidence of student learning through the development of assessment programs. There is a great deal of research available describing the assessment practices and activities undertaken to develop and implement student learning outcomes assessment (SLOA) programs. In some cases, the result is quite positive; in others, the term “resistance” is associated with faculty response to the development and implementation of student learning assessment plans. Individuals at several institutions who have indicated success with SLOA efforts also speak to a pre-existing, and in some cases on-going, state of resistance (Provezis,
2011; Jankowski, 2012). Such a phenomenon invites the consideration that the development of practices and metrics that focus on student learning may be, in and of itself, a process that results in organizational culture change.

As defined here, organizational culture is a shared collection of learned behaviors, interactions, practices and values that guide normative behavior in the accomplishment of work (Detert, Schroeder, & Mauriel, 2000; Rossman, Corbett, & Firestone, 1988; Schein, 1985). In part, this research explores scholarly works on organizational change paradigms and process change models to provide general understanding that process change may affect organizational culture within colleges and universities.

Many case studies of institutional efforts to create accountability metrics for student learning detail the events and activities employed. What remains relatively unexplored in the research is just how the reported activities within the development and implementation process brought about real or perceived change to elements of organizational culture.

The implementation of identifiable accountability measures for higher education mandated by federal and state regulatory and accrediting agencies is the industry’s “new normal.” Failure to address faculty concerns regarding assessment of student learning can produce a fractured environment that may hinder institutional progress and result in negative actions by accreditors. In consideration of these factors, it is important to continue research that reaches beyond understanding the efforts taken to integrate and sustain efforts and consider cultural shift.
Research that provides insight into the cultural nuances coinciding with the development and implementation of programs focused on student learning achievements may assist in engaging in more successful initial student learning assessment endeavors. Further, such research may help academic leaders reflect on the efforts taken to date, and revisit the development process relative to elements of organizational culture.

**Purpose of the Study**

This study aims to contribute to the available body of knowledge concerning the development and implementation of student learning assessment initiatives at the programmatic level and associated organizational culture change as witnessed through the perceptions of faculty and administration. The goal is to understand what elements of organizational culture may have changed during the development and implementation process, and how the combined effects may have shifted organizational culture. Receiving particular attention is how the process of developing and implementing assessment of student learning influenced the attitudes, behaviors, values, and practices of faculty and administration.

**Overview**

This study uses the qualitative method of case study analysis and focuses on the efforts of two academic programs at three private liberal arts institutions. The identification of an eclectic set of programs broadened the exploration of the phenomenon across different disciplines. Individual case studies for each of the three institutions studied describe both institutional contexts for assessment and program specific development and implementation efforts. The researcher then analyzed programs
of study at each institution to identify elements indicative of organizational culture change, and to determine what generalizations and assertions may exist when considering the six programs as a group (Creswell, 2013).

**Terminology**

The research presented in this study began with a review of current knowledge. The exploration of what is known today helped expose that organizational cultural changes associated with SLOA development and implementation at the program level is understudied. For the purposes of the review of the literature, language regarding the assessment of student learning was queried. The following list of terms and definitions aims to assist the reader in understanding how each term will be defined throughout the review of the literature and subsequent research.

- **Student Learning Outcomes Assessment (SLOA)** - A term used throughout literature on assessment to define academic assessment practices at an institution.

- **Student Learning Outcomes (SLOs)** – “Student learning outcomes are the accumulated knowledge, skills, and attitudes that students develop during a course of study.” (University of Virginia, 2012).

- **Institutional Learning Outcomes** - Assessment metrics that are identified with the college or university statements on the qualities of an educated person.

- **Completing the Assessment Loop or Process** - SLOA programs that have demonstrated ability to synthesize results, and use those results to make decisions to improve areas of deficiency (Banta, 2011; Frederick & Steven, 2010).
• *Organizational Culture/Institutional Culture* - a shared collection of learned behaviors, interactions, practices and values that guide normative behavior and the accomplishment of work (Detert, Schroeder, & Mauriel, 2000; Rossman, Corbett, & Firestone, 1988; Schein, 1985).
CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

To date, the topic of organizational culture change associated with the establishment of student learning outcomes assessment (SLOA) at American institutions of higher education has been the subject of limited research. The following is a review of current research on assessment, accountability, and organizational culture, that when combined, contribute to the need for more exploration of the phenomenon.

In order to provide the reader with foundational knowledge, the literature review includes a basic history of student learning assessment. Intertwined with the history of assessment is the evolving landscape regarding accountability and the role of accrediting agencies in requiring a holistic assessment of student learning.

While the need to have an effective evaluation of student learning seems evident, faculty continue to experience cultural conflict regarding the assessment of student learning. This review explores perceived conflicts in values, beliefs, practices, and attitudes observed as institutional and academic leaders attempt to engage the institution’s academic community in assessment efforts.

Despite the apparent discord that may exist during the development and implementation of SLOA, many institutions navigated these contentious waters successfully and used results from assessment programs, specifically focused on student learning, to inform academic decision-making. Case studies of several endeavors describe the challenges of creating an environment supportive of curricular creativity and ingenuity, as well as meeting the demand for documented accountability of student
learning.

What emerges from this examination is an understanding that institutions have engaged in strategies and activities that may have resulted in changes to practices, behaviors and values; all hallmarks of organizational culture change. As a result, theories surrounding evolutionary organizational culture change and models describing the change process most relevant to the development and implementation of SLOA are explored. When combining these themes, available research appears to focus on the steps institutions take to develop and implement assessment practices, but provides limited understanding of how organizational culture change may occur from these activities.

**Milestones of Assessment and the Role of Accrediting Agencies**

**Early Milestones and the Theme of Standardization**

The evolution of assessment can be compartmentalized into four eras spanning 1900 to the present: “The origin of standardized tests and learning: 1900-1933; the assessment of learning for general and graduate education: 1933-1947; the rise of test providers: 1948-1978; and the era of external accountability: 1979-present (Shavelson, 2007, p. 5).” The first iteration of assessment through standardized testing largely sought to measure knowledge gained in college objectively. With funding from the Carnegie Foundation, the University of Missouri, the Massachusetts Institute of Technology, the University of Cincinnati, and Columbia University exposed students to a series of standardized tests in arithmetic, spelling, penmanship, reading, and English (Savage, 1953). Though insufficient to generate reliability, the initial thought was that the results were better than results from traditional essay tests.
The early tests were significant first steps. With the introduction of the Pennsylvania Study conducted from 1928 through 1932, standardized testing advanced in the ability to measure both achievement and learning. This Study captured almost every area of college curriculum and involved thousands of high school seniors, college students, and faculty. Testing took approximately 12 hours and involved more than 3,200 multiple choice, matching, and true-false questions (Shavelson, 2010). The Study itself was a landmark for standardized testing as it clearly defined what areas of study the test measured and that the test assessed both student achievement and learning as a cumulative process from high school to college (Shavelson, 2010).

The Pennsylvania Study paved the way for the use of standardized testing in other areas of higher education. Building on the ability to assess achievement and learning, the Graduate Record Examination (GRE) sought to test reasoning skills to determine who was most qualified for graduate level education. A consortium of graduate schools including Columbia, Princeton, Harvard, and Yale developed the GRE in 1933 with the support of the Carnegie Foundation. Applicants completed the tests in two days. During its evolution, the GRE was often supplemented with subject-based examinations to cater to the wide variety of graduate studies (Shavelson, 2007) as cited by (Educational Testing Services (ETS), 1966).

Standardized testing, as both a means of assessment and establishing admission criteria, boomed after World War II, largely due to the influx of students desiring admission into colleges and universities under the G.I. Bill. The rising number of students
desiring entrance produced a reliance on standardized exams for admissions purposes, serving as a common factor among student applications.

By the late 1960’s and early 1970’s, ETS and American College Testing Inc. (ACT) began developing other assessments designed to assess undergraduate learning (Shavelson, 2007). Exams such as ACT’s College Outcomes Measures Project (COMP), that would become the College Assessment of Academic Proficiency (CAAP), assessed higher education’s productivity in student learning. In some cases, funders used results from such tests to determine state appropriation for institutions (American College Testing, 2009). It seemed inevitable that standardized testing would dominate higher education.

Reflective of the social theme of resistance that existed in the 1970’s, higher education began to demonstrate opposition to the wide use of such standardized assessments. Speculation over the marked use of multiple-choice questions prompted testing companies to adjust their assessments. The changes led to more costly tests, both in terms of production and scoring. Unable to sustain the costs, ACT reformatted the CAAP, returning to an entirely multiple-choice based exam. As a result, the CAAP is in limited use today, mostly by vocational and two-year institutions (American College Testing, 2009).

The most recent attempt at a standardized student learning assessment is the Collegiate Learning Assessment (CLA). The CLA is a test designed to have improved assessment of critical thinking skills by engaging students in,
real-life activity (such as preparing a memo or policy recommendation) that requires review and evaluation of several documents. All CLA tasks evaluate students’ abilities to articulate complex ideas, examine claims evidence, support ideas with relevant reasons and examples, sustain a coherent discussion, and use standard written English. (Council for Aid to Education, 2008)

The CLA began a full launch during the academic year 2009-2010. While some universities such as Texas A&M International University, St. Olaf College and Juniata College have disclosed administration of the CLA, use of produced findings in decision-making has not been addressed in the research reviewed (Baker, 2012; Jankowski, 2011; Jankowski, 2012). Recently, the CLA has also come under scrutiny in that, despite its efforts, it is not a test that has improved understanding of student learning when compared to other generally used standardized tests. Professor Robert Zemsky of the University of Pennsylvania sums up the challenges of the CLA and, by extension, present day standardized tests indicating that,

A more refined CLA is not what the academy needs. We don’t need a single test that is expected to be equally relevant to all institutions; we don’t need a test of dubious statistical value; and we don’t need a test that principally rewards motivation, and whose results too often reflect a student’s score on the SAT. (Zemsky, 2013)

The Role of Accreditation and Institutional Assessment of Learning Outcomes

The push for standardized assessments and the perceived threat of a world of higher education “teaching to the test,” produced a friction that largely stalled formalized assessment of student learning in higher education. The challenge, however, was that accountability of student learning was no less important. Public pressure for evidence of learning increased with rising student enrollment and the rising cost of education. Colleges and universities slowly began a shift towards student learning assessment
programs developed internally. While the era of assessment programs developed by institutions themselves overlaps the development of standardized assessment, this review considers them separately since understanding this shift contributes to understanding the phenomenon proposed for research.

The recent emphasis on evidence-based assessment of intended learning outcomes is largely driven by changing accreditation requirements (Moskal, Taylor, & Keon, 2008; Provezis, 2010). The changing role of the federal government within higher education led to changes in accreditation agencies’ standards. Beginning with the G.I. Bill and continuing with expansion of federal student aid programs, the federal government increased funding available for students to attend college. With increased funding, the government has also demanded greater accountability and transparency of institutional efforts (Eaton, 2011). Since the 1950s and continuing today, accrediting agencies have been the source of quality control relied on by the government to ensure that federal aid is used at colleges and universities of merit. The relationship is well founded so long as the federal government feels it can rely on assessment practices of the accrediting agencies (Eaton, 2011).

Formalized in 1972, the General Education Provisions Act affirmed that “no employee, department or agency of the federal government be permitted control over academic curriculum” (The United States Department of Education, 2007). Regional accrediting agencies would prove invaluable to the upkeep of such legislation. They were and continue to be the entity between the institution and the government that ensures both academic development and curriculum determination rest with the institution (Eaton,
Increased federal student aid resulted in an enlarged regulatory environment for accreditors and elevated the government’s demand for transparency and accountability.

The demand for greater evidence of institutional effectiveness resulted in every regional accrediting body crafting standards calling for the assessment of student learning, and stating that outcomes for student learning be “defined, articulated, assessed and used to guide institutional improvement” (Provezis, 2010, p. 7). The standards adopted by regional accrediting agencies, while each a little different, have a few common themes. No regional accreditor prescribes strategies for assessment, but all consider an institution’s evidence of student learning a matter of institutional integrity. As such, regional accrediting bodies have found institutions deficient in practices focusing specifically on measurement of student learning more frequently in recent years than in the past (Provezis, 2010).

Most recently, regional accreditors received further pressure from the President of the United States to hold colleges accountable for cost, value and quality in education. The President suggested developing alternative accreditation mechanisms if the existing structure proves unsatisfactory (Kelderman, 2013). The unexpected pressure from the US government further emphasizes the increasing scrutiny of institutional effectiveness in student learning. The result of both increased scrutiny by the federal government and changing accreditation standards has been a greater focus on the part of institutions to assess student learning and define learning outcomes. Today, faculty and administrations at institutions are in the process of developing programs to evaluate student learning at a variety of levels.
Throughout the undergraduate curriculum, an SLOA program aims to address the academic questions of: What are we trying to do? How well are we doing it? And, how do we know (Brescani, 2003)? Work produced by students should yield information to make improvements and serve to evaluate whether changes result in improvement of student learning (Brescani, 2003). While the process sounds simple, the challenge is determining what information best answers these questions. Identifying specific, measureable information gathered from a wide range of programs and offerings is a complex task. Moreover, adequate synthesis of data requires standardization on some levels (Brescani, 2003).

**Perceived Cultural Conflicts Associated with Assessment of Student Learning**

Emerging from the history of assessment and evolution of accountability is the theme of imposed change. Concerns about standardization, driven by external stakeholders and the mandated development of a more inclusive approach to student learning assessment, seem to ignite levels of resistance. Most acknowledge that a deeper understanding of what students are actually learning is important and, that the key to defining expectations of student learning and, subsequently, measuring the effectiveness of any particular learning process, rests with faculty. However, opposing reactions exist to both the establishment and use of formal assessment plans. A few themes arise that speak to conflicts with currently accepted values, beliefs, practices and attitudes within the academia.

David Boud (1990) promotes the notion that assessment of student learning for purposes of accreditation will have a tendency to focus on student achievement, normally
evaluated through summative assessment practices. While culminating tests of knowledge are critical, many raise concern over the loss of focus on the formative assessment, or actual learning.

The outcomes from summative evaluation may or may not reflect how much learning the student actually achieved (Boud, 1990). Further, the amount of importance placed on summative assessment raises the concern of shifting priorities for faculty. Faculty may feel compelled to ensure passing results on specific assessment items and marginalize the overall learning experience, including academic values of critical thinking and self-determination (Boud, 1990; Bok, 2013). Some perceive the movement towards summative assessment as replacing a much more fluid curriculum with standardized assessments and high stakes testing (Bennett & Brady, 2012).

A second concern revolves around the more global concept of slow standardization of curriculum across institutions of higher learning. Acknowledging uneasiness within the academy, Sandra Elman, former Director of the New England Association of Schools and Colleges, Commission on Institutions for Higher Education (NEASC/CIHE), reported in her own article that if assessment were to be a true analysis, there would need to be some similarities among institutions. Elman further articulated the importance of ensuring that assessment is not over-emphasized, producing the unintended outcome of more examination-based assessments and curriculum instruction directed towards those exams (Elman, 1994). Given that accreditation is the perceived catalyst for outcomes based assessment of student learning, Elman directly specifies the need for
accreditators to assist in supporting assessment alongside the necessity for continued academic autonomy (Elman, 1994).

Connected to the concern regarding slow standardization is the reality that SLOA efforts for a program or general education require agreement about what should be learned, as well as metrics to determine if students are learning the subject matter. Faculty can interpret this need to agree as an activity that minimizes the professoriate’s individual values regarding teaching and learning.

Other cultural conflicts associated with assessment center on the need for changing practices for faculty, and there is skepticism concerning the costs and benefits associated with assessment. Nearly every document produced about developing assessment practices specifically to evaluate student learning speaks to the exhaustive amount of work faculty must undertake. As the work associated with assessment is nearly always additive and not in exchange for release from other duties, there is natural resistance to increased workloads. For the amount of effort put into determining intended learning goals, directly tying assignments to those goals, and reporting results, faculty are often skeptical whether the benefits outweigh the efforts, and if any more knowledge is achieved beyond the standard practice of assigning grades (Bok, 2013).

While there is evidence of perceived cultural conflict, there are several examples demonstrating active support for efforts to measure student learning formally. Faculty supportive of assessment emphasize its use to develop curriculum and determine effectiveness in student learning, and place the responsibility of assessment directly on the faculty of an institution (Astin, 1992). Other promoters of assessment consider such
programs an indication of organizational health (Porter, 2012). Institutions that can create organizational commitment to a common vision are more likely to engage in a culture of learning, which entails continual analysis of its efforts (Porter, 2012).

Higher education unions have also demonstrated support for assessment of student learning as an activity supporting continuous learning and improvement. In 2006, The Commission on the Future of Higher Education (The Spelling’s Commission and the Spelling Report) released a report emphasizing the need for assessment, and highlighted use of a new standardized exam, the College Learning Assessment (CLA). Despite the Spelling Commission’s focus on instruments such as the CLA, the AAUP’s response demonstrated support for assessment and that improving both student-learning outcomes and transparency are in alignment with their principles (American Association of University Professors, 2006).

Leaders from The American Federation of Teachers (AFT), the Association of American University Professors (AAUP) and the National Education Association (NEA) also consider assessment a core of academic responsibility and function and reaffirmed many of the positions displayed in the AAUP’s response to the Spelling Report in 2006 (Gold, Rhoades, Smith, & Kuh, 2011). Higher education unions universally encourage partnership between faculty and administration in the development of SLOA programs, and recommend first to review internally what efforts already exist (Gold et al., 2011). While supportive of the concept of improving the measurement of student learning, the unions’ support stems from a base of increased faculty involvement, and institutionally developed programs as opposed to state mandated programs (Gold et al., 2011).
Knowing that there is both support and concern regarding the activity of assessment, it is helpful to review how some colleges and universities have risen to the challenge. However, in nearly every case study noting the achievement of successes, challenges remain. Institutional case studies illustrate the challenges of creating an environment supportive of both curriculum creativity and ingenuity, and documented accountability of student learning. Further, examining these efforts indicates an undercurrent of organizational culture change.

**Institutional Interpretations of SLOA: Successes and Challenges**

Institutional reports on the development of student learning assessment plans indicate both strengths and challenges. The College of Business Administration at the University of Central Florida wrote candidly about their efforts citing improvement in timeliness for student feedback, and improved clarity of program deficiencies (Moskal, Taylor, & Keon, 2008). However, the same example was not without its challenges. Despite the self-reported extensive involvement of faculty, faculty raised concerns over the use of common standards applying to course work and the use of results to measure faculty performance (Moskal et al., 2008). Further, faculty commented that assessment used as a measure of faculty performance threatens to hold faculty accountable for intangibles such as the level of student dedication to studies.

The outcomes assessment task force at State University of New York at Oneonta described the various lessons learned as they proceeded through the development process. Some expressed unease over the use of student learning assessment to evaluate faculty and mentioned perceived resistance to using an assessment program as arising from
concern for limiting academic autonomy (Haessig & La Potin, 1999). While Haessig and La Potin indicated that one of the most critical components to development of a successful SLOA program is a great deal of faculty involvement, they also indicated a faculty held belief that assessment was an administrative function (1999). The conflict between requiring faculty involvement in the development of SLOA programs and the faculty position that assessment is primarily an administrative function continues to surface (Angelo, 2002; Peterson & Vaughn, 2002).

The National Institute for Learning Outcomes Assessment (NILOA) recently studied a number of institutions to evaluate assessment. The study identified specific practices that were in response to learning deficiencies noted through student learning assessment. Each of these institutions (Augustana College, Capella University, Carnegie Mellon University, Colorado State University, Juniata College, LaGuardia Community College, North Carolina A&T State University, St. Olaf College, and Texas A&M International University) has been successful in using data gathered through student learning outcomes to inform decision-making. In every case, however, development of both SLOs and methods to measure them was a significant undertaking by the campus community, and a series of challenges had to be overcome (Baker, Jankowski, Provezis, & Kinzie, 2012).

Many of the institutions studied say the impetus for their development of assessment plans that focus on student learning was a response to, or in preparation for, a self-study and subsequent visit by regional accrediting agencies. Appropriate governance structures and faculty engagement and involvement were necessary in the development
process of such assessment initiatives. However, the institutions felt challenged to expand the efforts due to limited faculty engagement and involvement. Concerns over the use of student learning assessment results to evaluate faculty remained, and those interviewed conveyed challenges of expanding assessment efforts across the institution (Baker et al., 2012).

Five key themes arise when synthesizing both the successes and on-going challenges of student learning assessment initiatives communicated by these institutions. The research on assessment of student learning echoes these themes. First, acknowledgement of a legitimate requirement, namely meeting accreditation standards, needs to exist (Andrade, 2010; Elman, 1994; Eaton, 2011). Second, faculty involvement is critical for the development of proper assessment given their intimate knowledge of both teaching and student learning (Andrade, 2010; Banta, 1991; Banta, 1999; Bookhart, 1999; Grunwald & Marvin, 2003). Third, provision of faculty opportunity for professional development on assessment and ensuring the faculty’s “buy-in” of the benefits achieved through establishing and measuring expected outcomes for students are essential ingredients for engaging faculty (Angelo, 2002; Grunwald & Marvin, 2003). Fourth, institutional administrative and financial support serves as validation of these efforts (Baker et al., 2012; Peterson & Vaughn, 2002). Finally, institutions, despite their successes, are concerned about the needed levels of faculty involvement and engagement to sustain and expand assessment efforts. All of these activities indicate institutions of higher learning engaged in efforts that invite organizational culture change.
Organizational Culture, Culture Change, and Change Process

Defining Organizational Culture

Scholars define both organizational culture and social culture in a variety of ways. There are challenges to nearly every definition. This study does not propose new definitions. Rather, collected below are selected definitions relevant to understanding the phenomenon of organizational culture change associated with the development of assessment programs.

In one of the earliest definitions of social culture, Edward Taylor (1874), often celebrated as the father of modern thought on culture, defines culture simply as, “that complex whole which includes knowledge, belief, art, law, morals, customs and any other capabilities and habits acquired by man as a member of society” (p. 1). Much of the work on the definition of culture stems from Taylor’s concept and is used here specifically to formulate the differences in definitions between social and organizational culture.

Organizational culture, also referenced in this review as institutional culture, will draw on research that defines it as a learned collection of shared behaviors, interactions, practices and values that guide normative behavior and the accomplishment of work (Detert, Schroeder, & Mauriel, 2000; Rossman, Corbett, & Firestone, 1988; Schein, 1985)

Decision-Making and the Impact of Process Change on Organizational Culture

Decision-making systems occupy center stage in framing institutional culture. Birnbaum (1988) describes higher education decision-making systems as collegial,
bureaucratic, political, and anarchical. What permeates post-secondary institutions, regardless of decision-making style, is that they receive a variety of external inputs and have a variety of internal priorities converging to produce a decision or activity that is seldom pre-determined (Birnbaum, 1988). The decision-making system, whether it is largely bureaucratic having identified chains of command or predominantly political with alliances and agendas within agendas, will influence how people act, interact, and understand accepted norms (Birnbaum, 1988).

How effective an institution may be during the change process depends largely on how receptive change agents are to decision-making systems, behaviors, and norms that conflict with new initiatives (Bergquist, 2008). However, the issue of how to be responsive while completing a cycle of change within higher education is a much-debated topic.

Some will imply that a culture inviting change must first exist in order for change initiative to be successful. Subsequent research focused on items necessary to create a culture supportive of change (Curry, 1992; Kezar, 2012). Others focus on the change process itself as the driving factor for organizational culture change (Schein, 1985). Still others espouse that institutional culture ultimately shapes the change process and strategies (Kezar & Eckel, 2002; Luddeke, 1999).

To understand how the development of assessment of student learning programs can influence organizational culture, the latter two concepts will be comingled. The resulting notion is one of evolutionary change as opposed to revolutionary change where
institutional culture shapes change processes and strategies, and cultural adjustments occur in association with those change processes.

**Theories of Evolutionary Change and Change Process**

As discussed by Kezar (2001), central themes of evolutionary change involve reacting to the external environment, natural adaptation, and interpretative strategy where “participants interpret external environments through internal mechanisms” (p. 85). The activity of interpretation seen within evolutionary change often embeds many of the concepts associated with change models that focus on social cognition and sensemaking, or making sense of ambiguity and dissonance felt in a changing environment (Ancona, 2012; Weick, Sutcliffe, & Obstfeld, 2005). Theories that support evolutionary change suggest that institutions employing social-cognition models engage in a high degree of institutional involvement to: 1) make sense of why change is necessary; 2) work through cognitive dissonance associated with change; and 3) subsequently give shape to the course of events best suited to address the issues (Kezar, 2001; Birnbaum, 1988; Weick, et al., 2005).

Within higher education, change process models that consider the functional processes of change in concert with evolutionary change are not common. However, Lueddeke’s (1999) work on developing an “adaptive-generative” change process model is consistent with the complex change process that exists within higher education. The model first takes into account the core cultural strengths within higher education such as “open discourse, reflective critique, conversation, deconstruction of knowledge, and the impulse to keep pushing boundaries of excellence” (Hersh & Keeling, 2013, p. 12).
Infusing then, the functional process change of identifying need, conducting research, developing strategy, adequately resourcing, implementing, and evaluating with core cultural strengths, Lueddeke (1999) produces a process model that accounts for cultural implications. Such a model can assist in determining cultural adaptations at each stage of the change process (Appendix A – Lueddeke’s Adaptive-Generative Model).

Summary

A review of current research identified a few pertinent themes. First, there is little disagreement about the premise that assessment of student learning outcomes is important. However, these efforts often lead to perceptions that assessment is in direct conflict with faculty values, beliefs, attitudes, and practices relative to the accomplishment of their work.

Second, some institutions have embraced the challenge of defining and measuring student-learning outcomes, but few have generated results used for improvement. In a recent review of 146 institutions identified as having good assessment practices, only nine demonstrated evidence of improved student learning (Banta, 2011). The few recognized for using results from established practices indicate challenges to expand efforts within the institution.

Third, all comments on initiatives and activities of the institutions identified as having good practices point to describing institutions engaged in organizational culture change. Challenges mentioned by institutions reflect the need for on-going change. Efforts to evaluate and improve student mastery of learning outcomes must engage more of the institution’s faculty and expand throughout the institution. The activities needed
and challenges communicated demonstrate the importance of understanding institutional culture prior to the development and implementation of SLOA efforts, as well as the need to look at these initiatives as a process change through which institutional culture may evolve.

An understudied area included capturing how elements of institutional culture shift or evolve in association with assessment initiatives. To date, many researchers focused on how to change or create culture in order to implement assessment of student learning. Some studies involved researching institutional shifts meaningful within the context of developing the assessment program such as evolving institutional values and leadership, or something more tangible such as changing policies and procedures (Kezar, 2012; Williford, 1997). Others concentrated on what types of cultures foster successful student learning assessment practices (Kezar, 2012; Banta, Lund, Black, & Oblander, 1996). Further, much of the research available to date focuses on individual institutional case studies (Kezar, 2012). Some of the largest bodies of compiled research (Banta et al., 1996), presented individual case studies that outline process and activities, making it difficult to synthesize findings. (Bassoppo-Mayo, 1997). Understanding how the process of developing and implementing SLOA at the program level influenced the attitudes, behaviors, values, and practices of faculty and administration is not the subject of a great deal of research.

The provision of identifiable accountability measures for higher education mandated by federal and state regulatory and accrediting agencies is an irreversible trend. Continued dissonance on campus regarding effective and sustainable assessment of
student learning may produce a fractured environment that ultimately may hinder institutional progress. As a result, it is important to continue research on assessment initiatives that contribute effectively to the evolution of institutional culture. Such research may provide insight on the cultural nuances coinciding with the development and implementation of formalized plans and strategies to assess student learning.
CHAPTER THREE: RESEARCH METHODOLOGY

Research Questions

Given the wide variety of methods and plans to measure student learning, the research presented in this study analyzes institutions that have reached a point where assessment of intended learning goals exists at the program level. The research employs multiple case study analysis to create understanding of the following:

- How were the attitudes, behaviors, values, and practices of faculty and administration influenced by the process of developing and implementing plans to assess student learning at the program level?

- In what ways has the program’s organizational culture changed or been affected by the initiative?

In order to gather the information necessary to answer these questions it is important to understand a few critical attributes of each program studied.

- What was the development and implementation process for the program plan to assess student learning?

- What decisions were perceived to have most changed the organizational culture of the faculty and administration? How and why were these decisions so influential?
Research Methodology: Qualitative Case Study Analysis

Understanding how elements of organizational culture may have shifted during and after a program or department’s endeavor to develop and implement formal assessment of student learning required a broad and holistic inquiry. Events, process development, behaviors, and challenges experienced during the process became critical in creating a thorough understanding of the change process resulting in an effective and practical student learning assessment plan. More specifically, as relayed by Yin (2009), case studies are useful when “the boundaries between the phenomenon and context are not clearly evident” (Case study research: design and methods, p. Loc 637 of 4690). The case study method permits a multi-faceted and in-depth inquiry, making this method ideally suited for the research (Creswell, 2013; Yin, 2009).

Other methods produce information for analysis, but none provides the comprehensive depth required to gain the kind of knowledge necessary to respond to the inquiry. The method of experiments would be inappropriate given the inability to define control over behaviors and events (Yin, 2009). If the purpose of the inquiry was simply to study faculty attitudes towards institutional initiatives to evaluate student learning, such a study might consider a statistical analysis using survey data. However, such analysis would not address other elements that produce understanding of how roles and attitudes of faculty, staff, and administration may have changed in the development and implementations of programmatic or departmental student learning outcomes assessment plans.
It is possible to expand survey data to collect information from multiple institutions and program faculty. However, relying on surveys without other supporting data may introduce bias, thus reducing understanding or creating flawed interpretations of the program’s efforts. A study focusing on only the historical documentation available would clarify and define process, but would not address the actual experiences associated with development. Additionally, such historical documentation does not fulfill critical elements for the inquiry around identifying what organizational culture changes may have evolved. As it is the collection of documents and stories of lived experiences that create understanding, the case study approach allows for the most complete review.

**Site Selection**

The unit of analysis for study was departments or programs of study at American, private, liberal arts colleges and/or universities that have established a program to measure student learning and completed an assessment loop. Six selection criteria were established and are summarized below.

1. A private, regionally accredited college or university in the United States offering programs of study.
2. Program faculty had developed programmatic assessment and completed a program assessment loop.
3. Involvement in the development and implementation of the SLOA included a group of collaborating individuals.
4. Institutions and faculty were willing to grant access to documentation created as part of the development process.
5. Program faculty could provide program assessment reports that demonstrated findings and actions taken as a result.

6. Faculty and administration were willing to discuss the development process and what changes may have occurred to curriculum, process, organizational structure, and culture.

During a pilot study, the researcher employed a number of methods to identify and select potential candidates. Methods included seeking cooperation from individuals with whom the researcher had pre-existing relationships and had agreed to engage in discussion about outcomes based assessment development on campus. Additional opportunities also existed to connect with institutions that had already welcomed interviews from other researchers on the topic of student learning assessment efforts.

Another resource for site selection was the National Institute for Learning Outcomes Assessment (NILOA). Direct communication with a representative of NILOA resulted in contacting two institutions regarding the research purpose. Finally, the researcher contacted several award recipients of the Council of Higher Education Association’s (CHEA) Effective Institutional Practice in Student Learning Outcomes Award to ascertain access. The conditions of the study granted anonymity to all three institutions to help facilitate access and provide an arena for more candid responses from faculty and administration.

Through these avenues, the researcher identified three candidates for study. Institutions chosen included two CHEA award recipient institutions and an institution chosen because of pre-existing relationships between the researcher and staff members.
unaffiliated with the assessment efforts of their home institution. Below are brief
descriptions of each institution and the programs selected for study. The study preserved
anonymity by assigning alternate names for institutions, generic titles for individuals, and
general titles for institution-specific strategic plans and other documents.

Kipling University is the largest of the three institutions studied. In existence for
more than 100 years, Kipling serves in excess of 7,000 students and offers both
undergraduate and graduate education. As a large university committed to academic
assessment, it supports both an institutional assessment office as well as a programmatic
assessment office. Kipling developed an outcomes assessment plan drafted in 1998 that
laid the foundation for what has occurred over the last 16 years. Selected for the study
were both the School of Education and the Sociology Program.

The second institution, Edgington University, has approximately 5,500 students.
Undergraduate students can choose from more than 70 majors in six colleges and schools,
and carry their education forward at Edgington in 20 graduate programs. Edgington
describes itself as a liberal arts institution emphasizing professional preparation. Selected
for this study were the Environmental Science and Policy program and the Chemistry
Department.

The final site chosen for study was Gerhard College. With just over 3,000
students, Gerhard provides an example of a more institutionally driven approach to
assessment. Gerhard’s assessment program began with periods of resistance and evolved
to a point where its efforts are lauded by external agencies for their comprehensive
scope. Selected for the study were both the History and Religion Departments.
Data Collection

Consistent with case study analysis, data used to inform the inquiry came from several sources including historical documents, observations, and interviews (Yin, 2009). Data collected from these sources provided an assortment of evidence to identify prevailing themes. Listed below are the types of documentation collected, individuals interviewed, and observation opportunities. Site visit schedules were finalized between June and August of 2013 and field research commenced from August through October of 2013. On-site visits for data collection lasted between one and two days based on the coordination of interviews and interviewee availability.

The study used three primary data collection methods in support of qualitative research.

Historical Records

- The program’s assessment plan
- The stated programmatic SLOs and ILOs
- Summary assessment reports
- Institutional strategic plans
- Accreditation feedback regarding assessment efforts (if available)
- Other historical documentation describing the programs assessment development efforts.

Interviews

- Faculty, staff, and administrations within the program that have experienced the development and implementation process of the SLOA program
• Assessment Director’s and/or assessment champions within the program
• Other faculty outside of the program or department involved in the program’s SLOA efforts
• Administration and academic leadership involved with the program’s efforts

**Observations**

• Meetings to discuss assessment
• Informal conversations involving assessment
• Non-verbal cues during interviews

The review of historical records occurred both in advance and on-site to understand the programs’ assessment plans. Additionally, where analysis of assessment efforts by outside accrediting agencies was available, including such documentation provided independent perspective of the assessment program.

The collection of documents provided the skeletal framework and interviews constituted the soul. Part of the study consisted of interviews with a collection of faculty, staff, and administrators, program leadership, and program faculty and assessment directors. The primary instrument used for all interviews was a semi-structured interview protocol. The researcher personally conducted all interviews to maintain consistency of results.

The interview protocol included questions intended to be probative and useful to gain insight into the development and implementation of assessment procedures and instruments. Further, questions posed aimed to gain knowledge about how process development and implementation influenced any changes to organizational structure,
faculty and administration values, behaviors, practices, or attitudes towards assessment. In addition to providing understanding of the planned activities, interview questions uncovered any unintended results that may have affected the overall process, procedure, and outcomes. Appendix B – Interview Instrument provides a complete interview instrument detailing questions and sequencing.

The sequencing of questions presented in the interview instrument is consistent with Lueddeke’s (1999) Adaptive-Generative Change Model for guiding change within higher education (Appendix A – Adaptive-Generative Development Model). Organizing questions to follow the programs’ cycles of “establishing need, research and development, strategy development, resource support, implementation and dissemination, and evaluation” (p. 249) aided in identifying cultural and behavioral patterns within the findings (Yin, 2009). Sequencing questions as such presented them in logical form and invited discussion on real or perceived changes to organizational culture that may have taken place within each stage of the change cycle. Initial questions sought to clarify the role of the interviewee within the program and then transition to understand who participated and how the formation of the program assessment strategy. Moving from strategic development to implementation included questions posed to both understand reactions to the strategy and gain insight into process and assessment instrument development. Finally, interviews concluded with questions evaluative in nature regarding execution and outcomes.

Pursuant to the use of semi-structured interviews, essential questions guided the process, but did not assume the entirety of the interview. Queries focused on the human
element of the process to develop meaningful and practical programs to assess student learning and encouraged open dialogue on both how and what cultural changes have occurred.

Open-ended in nature, the questions aimed to solicit nuances, inflections and opinions of each person interviewed. During the site visit, the researcher noted non-verbal cues and allocated adequate time between interviews during the visit to invite informal discussions and observations of when and how faculty and administration interact and discuss assessment.

To ensure proper storage of all data collection throughout the site visit, the study observed the following storage expectations. Scanning and secured electronic storage of historical and other documents assured access for on-going analysis. The researcher informed interview subjects, through the consent form and in person, of the recording and saving of interviews as protected electronic files. (*Appendix C – Example Interview Subject Consent Form*). Finally, a third party, chosen based on reputation, efficiency and price, whose services were subject to a confidentiality agreement, transcribed interviews.

**Validation and Integrity of Data**

Assuring the trustworthiness and validity of the data is inherent in any research. Inconsistency of approach and threat of bias in the study are potential factors. The study employed a series of checks and balances throughout the research. Drawing on Creswell’s (2013) interpretation of validation as “an attempt to assess the accuracy of the findings,” (p.249), the multi-faceted approach, often referred to as triangulation, was applied (Creswell, 2013; Yvonna S. Lincoln & Guba, 1985; Yin, 2009; Salndana, 2011).
Document collection, interviews and observations provided an assortment of evidence to identify prevailing themes.

Collecting a consistent level of evidence for each case advocated accuracy through triangulation. Where possible, the researcher interviewed individuals from every program of study in proportionate numbers, but placed emphasis on ensuring interviews with those holding the most knowledge of pre and post assessment environments. All interviews utilized the same semi-structured interview protocol (Appendix B) to ensure consistency of subject matter.

The eclectic group of individuals interviewed ensured that the researcher explored multiple perspectives on the change process to identify both emerging themes as well as to seek information that may invalidate findings. Sites had the opportunity to check for contextual integrity, accuracy and assurance of anonymity. Study protocols included offering copies of the final case studies to each institution.

Data Analysis

Drawing on Yin’s (2009) guidelines for analyzing case study data, analysis was derived from “theoretical propositions” (Loc. 2650 of 4690). Sparking the desire for research was the proposition that portions of organizational culture change occur in association with the complex process of developing and implementing formalized methods to evaluate student learning. The study sought to identify emerging patterns and themes to help explain the phenomenon of organizational culture shifts driven through the development and implementation of such programs (Yin, 2009). To arrive at these emerging patterns, the study employed the “Case Study Coding” template provided by
Creswell (2013) to build a detailed portrait of each case. Appendix D demonstrates the Case Study Coding template. Observations of the elements indicative of organizational culture change were made within each case and then cross-analyzed for similarities, differences and general assertions. The study used hyperRESEARCH qualitative analysis software to code themes emerging from data collected from historical documents, observations and interviews, methodically.

To help facilitate objective review of the data collected, the study used, three levels of coding. First, all interview questions were sequenced and assigned relevancy in concert with the Lueddeke (1999) Adaptive-Generative Model of needs analysis, research and development, strategy formation and development, resource support, implementation and dissemination, and evaluation. Second, the researcher transcribed interviews to align responses with each stage of process change. Finally, the researcher coded responses for central themes that emerged within each process stage.

The result was an individual case study for each institution conveying findings that included: 1) the institutional context for assessment; 2) the development and implementation efforts of the program or department; and 3) the indicators of organizational culture change associated with programmatic assessment initiatives. In-case analysis synthesized elements indicative of organizational culture change between the two programs studied along with an analysis of institutional influence on program efforts.

After the development of themes for each case studied, cross-analysis of all programs needed to capture both the activities that helped faculty make meaning of the
process change, and what attributes helped frame the process to promote execution of the effort. The study presented a cross-case analysis in stages identified through the Lueddeke (1999) Adaptive-Generative Change Model (Appendix A) and applied theories associated with sensemaking to each process stage (Kezar, 2001; Weick, Sutcliffe, & Obstfeld, 2005). Then, theories presented by Bolman and Deal (2008) regarding the political, structural, human resources, and symbolic frameworks used to leverage certain institutional/program attributes at given times to execute effort were applied. Combining both the theories on sensemaking and reframing during each stage of process change helped to identify elements of organizational culture change that either shifted or reinforced during an earlier stage of process change. The research and analysis conducted for an individual program, and across all programs studied, provided insight as to what elements of organizational culture may have changed or shifted through the change process and how such change may have occurred.

**Researcher Bias**

As an educator, the researcher has spent years working in assessment rubrics of standardized tests, and has been associated with the development of an institution-wide SLOA program that does not use standardized testing as part of its process. These actual experiences, both in terms of successes and challenges, could introduce bias into the study. Ensuring consistency in data collection and interview protocols assisted in the mitigation of any personal bias, as did focusing on student learning assessment efforts at the program level rather than institutional level. Finally, to diminish perception of bias, this study did not include the researcher’s home institution.
Limitations of the Study

While this study of culture change related to programmatic assessment efforts uncovers many shifting elements of organizational culture associated with the change process, it is not exhaustive. The three sites selected afford an opportunity to review assessment efforts at institutions that vary in size and in programs that vary in discipline. Such variety provides thorough analysis but cannot account for all existing types of assessment programs. The inquiry does not address the myriad assessment plans and methods within higher education, but rather discloses the efforts of selected programs and themes that emerged within those chosen.

Additionally, the study places emphasis on the scaffolding of the assessment process and how that framework promotes the shifting elements of organizational culture. Research findings do not focus on raw data findings that led to the programs’ disclosed use, but rather on programs’ summarized findings and the use of that evidence to inform change in each of the programs.

Further, the institutions selected for research are all American private institutions, grounded in the liberal arts with student populations of less than 10,000. Excluded from exploration were nuances associated with community colleges, public institutions, large research universities, predominantly online institutions and international institutions. In addition, while the study selected an eclectic group of programs for study, it cannot serve as a generalization for the many different programs of study offered by higher education. Finally, the research does not look at emerging trends in organizational culture associated
with assessment of student learning related to wholly online programs and competency-based programs of study.
CHAPTER FOUR: CASE STUDIES AND IN-CASE OBSERVATIONS

Kipling University

Institutional Overview

In existence for more than 100 years, Kipling (or the University) is a private liberal arts university serving more than 7,000 students, and offering both undergraduate and graduate education. As reflected in its Mission Statement, Kipling commits to preparing students with an education that fosters the curious mind, creates understanding of cultural values, and encourages independent learning. While grounded in liberal arts, Kipling also offers professional degree programs in education, business, social work, and psychology.

Kipling is home to an eclectic student body that includes a balanced population of both graduate and undergraduate students, with more than 20% of students attending part-time. Additionally, just over 13% of students come to the University from out-of-state or as international students. Kipling’s student body is mobile with 80% of all undergraduates living off campus. Witnessed during the daylong visit, Kipling’s strong mix of commuting students brings about a campus life where students appear to be on the go at all times.

Due to a steady increase in enrollment, Kipling hired many faculty members in recent years. Committed to academic assessment, the University supports both an institutional assessment office and a programmatic assessment office. Kipling’s website displays comprehensive program assessment efforts within several of its largest programs. Assessment information includes details of program goals, learning outcomes,
and evidence of faculty involvement. Also disclosed on its website is an organizational structure that includes several individuals dedicated to both institutional and program assessment. Additionally, Kipling has several programs that have completed the assessment loop successfully. As a result, Kipling affords an opportunity to understand how the process of developing and implementing programmatic/department level assessment may have influenced attitudes, values, behaviors, and practices of faculty and administration.

**Institutional History of Assessment Development**

Planning for learning outcomes assessment began in earnest at Kipling in the late 1990s. As noted in one of the Institution’s Master Plans, the strategy to implement an outcomes-based assessment plan focused on the following four broad goals.

1. Assessment and reporting efforts will be routine.
2. Student satisfaction survey data will be used to understand the student experience at Kipling and to explore reasons a student left Kipling in advance of earning a degree.
3. Assessment will be embedded and routine across all academic programs.
4. Indicators of student learning will be developed and collected for use in designing and/or revising curriculum.

From 1999-2004, Kipling put many structural initiatives in place to help the University achieve these goals. Kipling established the office of assessment in 1999, structured, according to the University’s Master Plan, to report directly to senior administration in the office of academic affairs. In its Master Plan, Kipling stated the
belief that such a structure reframed the perception of assessment from one of data collection for administration to a knowledge resource for faculty. The office of assessment assumed responsibility for collecting and reporting outcomes of all institutional assessment efforts, including assessment of student learning for general education.

In 2002, the associate provost for academic affairs and staff in the office of assessment collaborated to establish a University Assessment Committee (UAC) to foster wider participation and understanding of assessment efforts. Comprised of program and general education faculty, administrators, staff, and students, the UAC was active at the time of this research and reported to the associate provost. The UAC received its initial charge to engage faculty in developing an assessment plan for general education. The UAC conducted surveys and found a need for greater expansion of the stated institutional learning goals. In 2004, the UAC submitted recommendations for expanding the institutional learning goals to include the General Education Committee (GEC). Further, the UAC recommended that the GEC develop a model of assessment for the curriculum. Subsequently, the GEC developed an assessment model that the faculty approved and adopted for the 2004-2005 academic year.

Included in the University’s model for the assessment of general education was the use of capstone courses. The design of capstone courses included the requirement that students draw on learning accumulated during their career at Kipling. The faculty approved capstone courses as an institutional requirement in 2005. Execution relied heavily on program faculty to develop capstone courses that assessed learning goals
associated with general education. Program faculty worked to create new or to adjust existing capstone courses from 2006 to 2009, and integrated capstones as a program requirement in a timeframe appropriate for the program. As noted in the University’s latest self-study prepared for its regional accrediting body, both the UAC and GEC oversee the capstone assessment process, with the office of assessment coordinating efforts and analyzing results. Today, Kipling has completed one full cycle of assessment of general education learning goals and has begun a second cycle.

One challenge that arose for faculty while conducting initial institutional assessment efforts was drawing the distinction between grades and assessment of a particular learning goal. Members of the UAC commented that there is on-going professional development to increase knowledge on the distinction between a grade that represents holistic assessment of student work and scoring level of mastery on a specific learning objective (University Assessment Committee, personal communication, October 16, 2013).

**Institutional Context for Program and Department Level Assessment**

While most of Kipling’s institutional assessment efforts focus on general education, the University also implemented structures and plans for assessment of student learning at the program and department levels. Structurally, Kipling appointed an associate provost for program assessment charged with coordinating assessment efforts for all programs within the various schools at the University. Programmatic assessment comprised two dimensions: a formal academic program review process that occurs every seven years, and a program assessment summary that occurs every two years.
In 2000, Kipling launched the academic program review process, a comprehensive analysis that included a self-study and an evaluation team of internal and external assessors. On completion of the program review, faculty prepared plans to capitalize on noted strengths and to address deficiencies, culminating with recommendations and requests to the school administration for resource consideration in the coming budget years. Between self-studies prepared for programmatic accreditation reviews or that were part of the Institution’s academic program review, Kipling reviewed all programs once or twice as of 2013.

Begun in 2009, the program assessment summary included a review of a program’s learning goals and objectives, methods used for assessment, and a report of any findings or actions programs took based on assessment results. Kipling positioned the two-year review for faculty as an activity to help craft the more detailed academic program review or self-study prepared for programmatic accreditation. Program assessment summaries focused on answering four overarching questions.

1. What was the goal of the program?
2. How well was the program doing in fulfilling that goal?
3. Did the information gathered both improve and highlight areas of strength?
4. Were the implemented improvements working to fulfill the goals of the program?

In addition to answering the overarching questions, biennial program assessment summaries were to include curriculum plans, general goals for program faculty, and timelines to achieve these goals.
Programs needed formalized assessment plans to prepare for both biennial program assessment summaries and comprehensive academic program reviews. The University left decisions regarding assessment contents to the program and its faculty, and outlined a basic framework and a modest amount of standardization through reporting requirements. Each program was to have a set of program goals, student learning goals, and specific learning expectations as part of its assessment plan. Learning expectations described what students should be able to demonstrate or produce at given points in the curriculum or by the end of their studies. Finally, program assessment plans were to indicate how the program learning goals related to the institutional learning outcomes of Kipling.

While reporting was required every two years, assessment of student learning occurred annually. Program assessment staff provided guidance to program faculty to assess no more than three or four learning goals in any one year, in order to ease workload and ensure quality efforts. The associate provost worked directly with the deans of each school to ensure all program plans were updated at the appropriate time.

**Program Assessment and Organizational Culture**

To gain further understanding of what elements of organizational culture may have changed in association with developing and implementing assessment of student learning, the researcher conducted interviews with members of administration and assessment staff. Interview subjects included department chairs and faculty members from the School of Education and from the departments of Psychology and Sociology. Members of the UAC were also included in the interview pool, affording interaction with
a cross-section of knowledgeable individuals holding key roles in assessment efforts at Kipling. In addition, interviewees commented on existing organizational culture both prior to and after the initiation of assessment efforts. The substantial amount of written documentation and in-depth discussions with the director of assessment for the School of Education as well as the former department chair for the Sociology Program influenced the choice of the School of Education and the Sociology Program as subjects for this study.

**The School of Education**

**Overview and assessment planning and process implementation.** The School of Education is one of the largest at the University, consisting of more than 70 faculty members within three different education disciplines: 1) curriculum and instruction; 2) communication science and disorders; and 3) exercise and health and physical sciences. The School confers bachelor, master, and doctoral degrees, as well a variety of education-based certifications. Accreditation with the National Council for Accreditation of Teacher Education (NCATE) holds The School of Education to specific assessment standards. In addition to NCATE, each program within the School must adhere to assessment standards outlined by their Special Program Associations (SPA). SPAs require reporting information regarding teacher candidate performance, often generated through assessment efforts.

The School’s director of assessment pointed out that assessment practices began earnestly in 2008, roughly two years after the 2006 accreditation visit by NCATE. NCATE’s report noted areas within academic assessment needing improvement (Director
of Assessment, School of Education, personal communication, September 13, 2013). As the School sought to enact change before its next NCATE accreditation visit, it went about developing and refining assessment practices to comply with NCATE’s expectations. Between 2008 and 2010, assessment development was underway in several departments and units within the School but lacked continuity and organization.

The School chose to add personnel directly responsible for assessment to create greater capacity for assessment efforts. According to the latest self-study report in preparation for its NCATE accreditation visit, the School added the full-time position of director of assessment in 2010, specifically to assist in the assessment efforts and maintain oversight over all School assessment initiatives. The director of assessment acknowledged that timing of the position addition was to support the re-accreditation process (Director of Assessment, School of Education, personal, communication, September 13, 2013). The School’s office of assessment and assessment committee, along with the University’s office of assessment, worked in concert with one another to generate both the assessment system and data needed for re-accreditation.

One of the first initiatives of the director of assessment was to review, organize and synthesize the myriad of assessment activities associated with developing assessment plans from 2008 to 2010. To enumerate and describe what the next steps should be, the director of assessment, in association with the School, established various committees within the School to identify the overall cycle of assessment and ensure the cycle matched NCATE’s expectations.
Faculty and assessment staff within the School developed a comprehensive assessment system and subsequently summarized their efforts in a guidebook. Identified in the guidebook, the purpose of assessment was to determine if the School and its respective programs effectively prepared students in accordance with stated expectations crafted by the faculty. Assessment was to be used specifically for continuous improvement, easy to implement, and transparent. Further, the assessment practices were to ensure the production of accurate, reliable, and valid data for analysis and in compliance with all policies and guidelines.

Having established its purpose, faculty and assessment staff developed an assessment cycle that gathered data from a variety of sources at the School and individual program levels. Table 1 outlines the indirect and direct methods of assessment identified.
### Table 1

*Assessment Methods for Kipling’s School of Education*

<table>
<thead>
<tr>
<th>Data Collected</th>
<th>Method</th>
<th>Data Level</th>
<th>Reviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Assessments (includes items such as: state licensure exams, GPA, written student work, student lesson plans, fieldwork performance, and capstone research projects)</td>
<td>Hard and electronic copies of work, and exam scores reporting agencies</td>
<td>Program</td>
<td>Annually</td>
</tr>
<tr>
<td>Dispositions evaluated using internally developed rubrics</td>
<td>Hard Copy</td>
<td>School and Program</td>
<td>Annually</td>
</tr>
<tr>
<td>Exit Survey for Student Teachers</td>
<td>Online Survey</td>
<td>School and Program</td>
<td>Each Semester</td>
</tr>
<tr>
<td>Diversity Survey for Student Teachers</td>
<td>Online Survey</td>
<td>Program</td>
<td>Each Semester</td>
</tr>
<tr>
<td>Technology Survey for Student Teachers</td>
<td>Online Survey</td>
<td>Program</td>
<td>Each Semester</td>
</tr>
<tr>
<td>Teacher Work Samples (student portfolio to document teacher candidate achievements)</td>
<td>Hard Copy</td>
<td>School and Program</td>
<td>Annually</td>
</tr>
<tr>
<td>Forms that include Quantitative information on fieldwork courses</td>
<td>Hard Copy</td>
<td>School and Program</td>
<td>Each Semester</td>
</tr>
<tr>
<td>Fieldwork Experience Survey</td>
<td>Online Survey</td>
<td>School and Program</td>
<td>Each Semester</td>
</tr>
</tbody>
</table>

Both the School and University assessment office staff collected and analyzed data from these sources. During two retreats a year, the School’s chairs, program directors, standing committees, dean, and administration reviewed the findings synthesized by the offices of assessment. Upon review and discussion, the School’s faculty and administration arrived at decisions to maintain current activities in some instances, and pilot or implement changes in others. Actions taken became part of the
next assessment cycle. The result of the process was a comprehensive assessment system that included a conceptual framework in alignment with: 1) NCATE and SPA standards for teacher candidate performance; 2) the School’s mission, vision, and core values; and 3) Kipling’s strategic goals.

With an assessment cycle in place, faculty and staff proceeded to address the need to understand the use, consistency, and accuracy of assessment tools. The School added an internal advisory team to the committee structure to lead the review of assessment tools in use. To begin, the advisory team sought to clarify which assessment efforts were most useful to the School. The advisory team conducted an assessment utilization study and identified nine methods of assessment that produced the greatest value for programs in determining strengths and areas of improvement. These included teaching evaluations, state test scores, exit surveys, program identified assessment of key assessments, GPA, samples of student work, student reflections, observations, and enrollment data.

The assessment tools identified as having substantial value were the rubrics developed to measure learning progress on “key assessments.” Key assessments represented the bulk of assessment efforts related to specific learning goals required by the accreditation agency. The advisory team determined that the value of data derived from key assessments depended on the accuracy, weighting, and scoring of the assignment used. As a result, the advisory team recommended a comprehensive review of key assessments and their scoring rubrics to determine validity and applicability to measuring specified learning goals. The review required a high degree of collaboration
and substantial use of faculty resources. In total, eleven full and part-time faculty members conducted a review and evaluation of 219 key assessment and rubrics.

Results of the validation study provided interesting insight as to the difficulties of assessment of specific learning expectations. In some cases, the review revealed rubrics that misaligned with assignment directions, were inconsistent with the SPA requirements, and did not assess intended NCATE and SPA standards. Additionally, the advisory team identified instances where grades issued were inconsistent with the rubric. Findings from the validation study were useful in justifying a process for cyclical review of rubrics used across the School’s curricula to ensure well-timed feedback on rubric results.

The usefulness of the study prompted faculty desire for more validation studies to look at student performance relative to the student life cycle and the points at which students transition from introductory levels of learning to preparing for teacher candidacy and, finally, student teaching. As identified in the School’s latest self-study report for NCATE, an important outcome of the validation study was a desire for meaningful faculty professional education concerning the development and use of rubrics.

Beyond evaluation of the usefulness and validity of certain assessment tools, the advisory team identified areas to improve data for curriculum decision-making to make it more meaningful. The team identified instances in which data collected were not relevant to what the programs wanted to evaluate. As a result, data collected could stifle rather than support the ability to enact curricular change. Other areas of improvement included streamlining the collection, analysis, and communication of data to support timely changes to curriculum. The advisory team highlighted data that seemed most valuable for
each program within the School, identified areas of information deficiencies, and noted improvements already underway.

**Use of assessment.** NCATE accreditation requirements compelled the School to have several points of assessment and faculty developed rubrics for all key assignments. However, the creation of a comprehensive assessment process required additional time to evaluate and measure its effectiveness. Faculty analyzed student work objectively against the key assignments and relevance of rubrics and concluded that improvement to both the criteria and scoring system could improve outcomes. Two items cited as imperative improvements were clarity of assignment purpose and instructions for students.

Through the variety of assessment data collected by the School, faculty have used results to evaluate teacher candidate performance against expected learning goals and implemented a series of critical transition points within the curriculum. As disclosed in the School’s latest self-study, these included:

- the point of admission into certain programs to ensure that candidates meet both University and program specific criteria;
- the point at which foundational knowledge on education competencies has been formed;
- the point at which teacher candidates should be able to apply what has been learned;
- the transition into student teaching; and
- exiting the programs
These transition points have been helpful in establishing opportunities for holistic assessment throughout a student’s career to ensure sufficient progress occurs and help determine preparedness for student teaching and program exit.

As part of the assessment utilization study referenced earlier, an area specifically important to faculty was effective assessment of professional attitudes, values, and beliefs of teacher candidates. The School of Education and NCATE refer commonly to these attributes as “dispositions” and consider them an important element when determining teacher candidacy. The advisory team found the assessment tool insufficient to support the needs of the School. The School’s assessment committee received the findings from the advisory team and determined that both the learning goals related to dispositions and methods to assess those goals needed revision. According to committee meeting minutes, a six-month investigation of current definitions, assessment options, and rubrics brought about several changes. First, the committee made changes to the stated disposition goals for teacher candidates. Second, they revised rubrics to address key components within each learning goal related to dispositions. Third, the committee correlated tasks to each rubric ensuring there was an activity that could measure student professional behavior. Finally, they recommended reviewing teacher candidate dispositions earlier in course work to better prepare students to meet the student teaching requirement.

Elements of organizational culture change associated with assessment efforts for the School of Education. Beginning in 2008, several changes occurred for the School in response to the areas identified as needing improvement by NCATE. Faculty engaged heavily in the practice of rubric development, such that by 2010, several assessment tools
were available for the School. As of 2013, the practice of rubric development, assessment, and refinement continues to be part of the School’s ongoing practices.

In addition to the development of rubrics, the School standardized practices associated with the ongoing validation of rubrics. As noted in the School’s recent self-study for NCATE, it intends to conduct additional validation studies to identify indicators of improved student performance and to evaluate whether the data collected at transition points for teacher candidates adequately predicts candidate success. Additionally, the School will also invite the professional community to review the assessment system and solicit feedback for continuous improvement relative to employer needs.

Hiring a director of assessment initiated structural changes. In 2013, the School integrated the position of director of assessment more directly into the senior leadership of the School (Director of Assessment, School of Education, personal communication, September 13, 2013). Other structural changes occurred as the School prepared for its re-accreditation visit. The director of assessment indicated the development of a robust committee structure as key for all of the efforts associated with improving assessment (Director of Assessment, School of Education, personal communication, September 13, 2013).

The structure, once comprised of an assessment committee, grew to include an internal advisory team comprised of 25-30 faculty and staff within the School, and a team dedicated to NCATE preparations. As of 2013, the team developed to prepare for NCATE accreditation was to remain as a standing committee associated with the School’s assessment process and serve as a reflective group evaluating assessment data
collected. The director of assessment acknowledged that the robust committee structure was important for the union environment as it ensured shared governance and decision-making about assessment efforts (Director of Assessment, School of Education, personal communication, September 13, 2013). Commenting on the level of involvement the director said that,

We are definitely like the U.N. here. We take everybody’s opinions into account. . . Even though there are times when I want to make decisions and move forward, I think it’s useful, and it saves time in the long run, if I get some more input and feedback from our folks. . .It’s just the way things are done. If we didn’t do that, it would be odd. (Director of Assessment, School of Education, personal communication, September 13, 2013)

As a more inclusive committee structure evolved, conversations involving assessment became more widespread, suggesting that dialogue concerning assessment became more prevalent throughout the School, rather than being an isolated activity remote from day-to-day operations (Director of Assessment, School of Education, personal communication, September 13, 2013).

Additionally, the director of assessment indicated that many faculty members used assessment outcomes to enact change. Serving as evidence was the creation of transition points to assess candidate progress and enact changes as needed to improve readiness at each transition (Director of Assessment, School of Education, personal communication, September 13, 2013). Further, analysis of disposition learning goals not only reignited the importance of developing meaningful and measureable learning goals, but also helped faculty see the need for curricular change involving introduction of content earlier in the curriculum. Finally, a change in faculty skill sets necessary to
perform at expected levels of competency surrounding the formalized assessment of student learning triggered a desire for professional development in assessment activities.

When asked about the sustainability of the School’s assessment efforts, the director of assessment acknowledged that it was difficult to picture a world where assessment is not a high priority as the industry had changed and that the trend was to assess more, not less (Director of Assessment, School of Education, personal communication, September 13, 2013). However, were assessment standards relaxed, the director felt that the effort would not be as rigorous, but could not confirm if assessment efforts would dissipate entirely. The director acknowledged that while many in the School today see value in assessment, it often still feels like going to the dentist and summarized by saying,

Nobody wants to go to the dentist. But, it’s a necessary evil. Nobody wants to get a cavity or root canal. But, if you don’t go to prevent it, then you are going to have the bad stuff after it. So, I feel like there’s an acknowledgement that assessment is important. I wouldn’t say that everybody equally embraced it. (Director of Assessment, School of Education, personal communication, September 13, 2013)

The Sociology Program

Overview and assessment planning and process implementation. The Sociology Program at Kipling, situated within the College of Arts and Sciences, is one of the 16 programs offerings within the humanities and social sciences. Grounded in exploration, faculty members developed a curriculum that emphasizes research through requisite methods courses and imbeds research activities across the curriculum. Seven full-time faculty members, who rotate as chair of the program, and several adjunct faculty members, support the Sociology Program. All but one of the faculty members has been
hired into the program since 2003 (Faculty member, Sociology Program, personal communication, October 16, 2013).

A faculty member described the program’s decision-making practices as consensus based, but said that individuals or small groups of faculty were responsible for the execution of activities (Faculty member, Sociology Program, personal communication, October 16, 2013). Further commenting on the collaborative nature of the program, one faculty member stated,

I think that our instincts in terms of students strengths and weaknesses and the departments strengths and weaknesses, I think. . .there is commonality. There’s not a lot of really different perceptions of what’s going on, so that makes it easier to make decisions together. (Faculty member, Sociology Program, personal communication, October 16, 2013)

The Sociology Program does not have any programmatic accreditation requirements and adheres to the requirements of biennial program summary and academic program review instituted by Kipling. A faculty member, who had served as program chair during the development and initial implementation of student learning assessment, led the conversation on the program’s assessment efforts and experiences in development.

The Sociology Program’s assessment effort, described as an activity in response to regional accreditation requirements, began in 2005 (Faculty member, Sociology Program, personal communication, October 16, 2013). Shortly after capstone courses became an institutional requirement, the program faculty convened to articulate the overall learning goals for the program. Additionally, faculty developed specific learning goals associated with the understanding and application of research methods, theoretical
approaches to sociology, and learning expectations out of elective course work related to the discipline. Defined in the program’s assessment plan, all learning goals were developed to align with the program’s mission; that students ought to learn to observe, measure, report, analyze, and draw conclusions about human social behavior in all its complexity.

Upon establishment of the learning goals, faculty proceeded to develop a five-part methodology of assessment that has evolved from 2005 through 2012. As described in the program’s assessment plan, part one included the annual requirement of direct assessment efforts for all courses enrolling at least six students majoring in Sociology. Instructors integrated each overall learning goal into their syllabi, and, where applicable, incorporated learning goals related to research methods, theory, or program learning goals covered in electives. The student work used for assessment, included papers, work that demonstrated an understanding of research methods, exams, and projects completed as part of the capstone course. Items specifically used for assessment, as well as which learning goals were assessed, varied by course. At the end of every semester, each instructor completed a standard rubric designed by the program faculty. The following list identifies the standard rubric used for all courses where faculty identified whether students did not meet, met, or exceeded expectations.

*Sociology Program – Course Assessment Learning Goal Rubric*

**Disciplinary Learning Goals**

1. Articulate and understanding of the sociological perspective as defined through the intersections of individual biography and historical, cultural and social forces
2. Convey an understanding of how individual and group experiences are shaped by the values society places on social characteristics which are institutionalized into the structure of everyday life

3. Conduct critical sociological analyses about historical and contemporary social issues

**Methods Learning Goals**

1. Able to describe methodological and analytical approaches to social research
2. Able to apply basic sociological methods
3. Able to interpret sociological research reports

**Theory Learning Goals**

1. Able to describe the significant theoretical approaches in sociology
2. Apply these approaches in the analysis of the structure of society and its institutions
3. Recognize theoretical frameworks
4. Interpret how these frameworks influence underlying assumptions and conclusions in the analysis of social issues

**Electives Learning Goals**

1. Discuss foundational concepts of sociology including, but not limited to, the sociological imagination, social institutions, social groups, social stratification and social forces
2. Apply these concepts in the analysis of society and everyday life
3. Utilize concepts as tools to understand content areas such as the family, crime, social inequality, gender, race, ethnicity, family education, law, etc., within the context of sociological inquiry.

Faculty analyzed findings and provided comment and recommendations to the program chair. The chair of the program compiled direct assessment findings and then convened faculty to discuss results and propose changes.

Part two of the program’s assessment plan was implementation of an indirect assessment in which students received a survey to evaluate their own mastery of the program learning goals. Similar to direct assessment data collection and analysis, program faculty collected survey data, the program chair compiled data, and reviewed data at program faculty meetings.

Third, with the institutional requirement of capstone courses, the Sociology Program faculty saw it an opportunity to reinforce the learning goals of the program. A program faculty member described the capstone course as,

a course oriented to . . . evaluate and solidify students’ learning from the time they began as a major [in the Sociology program] and onward. So it is not a demonstration project of their knowledge and skills, it’s more a bringing together of that to reinforce what they know or fill in gaps. (Faculty member, Sociology Program, personal communication, October 16, 2013)

Added in the spring of 2012, the program’s assessment plan included the capstone course as a tool not only for the assessment of institutional learning goals as required, but also for program learning goals. The use of comprehensive student work produced out of the capstone project provided an additional method of direct assessment.

Begun in the fall of 2012, the Sociology Program faculty added a fourth part to their assessment efforts by surveying program alumni from the past ten years. Survey
data, collected to understand what students have engaged in after completing their program studies, also functioned as a second indirect method to assess program effectiveness.

The final part of the process included meeting formally to discuss results from the four points of assessment, and revise curriculum as needed. According to the former program chair, between 2010 and 2013 the faculty identified roughly 20 action items regarding curriculum modification.

**Use of assessment.** Assessment findings resulted in the following nine activities identified in the biennial program summary.

1. To improve clarity, faculty made minor revisions to the overall learning goals.
2. All program faculty members incorporated each overall intended learning goal into their syllabi.
3. Faculty made curriculum adjustments where deficiencies in learning occurred. In one example, faculty noted that students were not meeting expectations in reading and comprehending challenging materials. To address this issue, faculty included a literature review assignment in Methods courses.
4. To address specific concerns concerning deficient student writing skills, faculty integrated a standard textbook that addressed writing skills for sociology majors and introduced writing requirements into several courses, including introductory, method, theory, and capstone coursework.
5. Faculty gave attention to the sequencing of curriculum. Curriculum added pre-requisites to ensure students completed much of their foundational knowledge needed for greater success in their junior and senior year coursework.

6. Faculty improved their understanding of measuring course rigor and changed course content to improve alignment with 200 and 400 level course designations.

7. Faculty recommended that teaching practices improve to communicate explicitly how theory and method link directly together.

8. Program faculty engaged in several conversations about redesigning courses altogether. To date, redesign has not occurred due to resource and time constraints (Faculty member, Sociology Program, personal communication, October 16, 2013).

9. Assessment findings revealed several deficiencies in general writing skills. Deficiencies included the inability to recognize the difference between an opinion, an informed opinion, and writing analytically. In response to these deficiencies, faculty created an additional information literacy course to help students meet expectations, while also completing the general education requirement.

The former chair described an interesting challenge with the development of a sociology program course designed to enhance information literacy. Faculty viewed the new course as critical to addressing student learning gaps in information literacy for Sociology majors as identified through the assessment of student learning. However, the low number of student enrollees did not justify offering the course. To compensate, program faculty submitted a new course request to the GEC and UAC for approval as a course that would fulfill information literacy requirements in general education. Were the
course to receive designation as one that fulfills Kipling’s information literacy requirement, the course could accept students from all majors and ensure class sizes large enough to justify offering the course. Creating a course to serve effectively both program and institutional learning goals is complex and has been a difficult road for the program (Faculty member, Sociology Program, personal communication, October 16, 2013).

The program chair commented that an additional challenge existed regarding executing activities that address identified concerns in student learning progression. As an example, assessment data revealed that larger class sizes for qualitative methods appeared to be detrimental to student learning. While the program ultimately succeeded in adding sections to reduce average class size, the faculty member commented that it serves as example in which. “we can identify problems and then the very solutions that we know are effective are not the ones we can pursue” (Faculty member, Sociology Program, personal communication, October 16, 2013).

Elements of organizational culture change associated with assessment efforts for the Sociology Program. There have been several subtle and significant changes to the Sociology Program since the inception of its assessment efforts. Most pronounced are the shifts in curriculum review and refinement practices. Prior to assessment efforts, individual instructor perception of course effectiveness formed the basis for changes to curriculum. Because of assessment of student learning development, faculty now gathered information about student learning progression, and then, collectively determined what changes were necessary. The serious and complete nature of using assessment information to inform curriculum development practices adopted by faculty
resulted in increased workload. However, the substantive increase in workload that afforded gains in meaningful information was preferred to a modest increase in workload generating no usefulness at all (Faculty member, Sociology Program, personal communication, October 16, 2013).

Beyond assessment data informing curriculum development and refinement, practices to ensure that expected learning goals were addressed throughout the curriculum also changed. Faculty modified course syllabi to include relevant learning goals, and articulated how the goals were measured. The changes allowed for an increased awareness of program “scaffolding” and ensured that all learning goals were effectively touched on in each course. Articulating the importance if such scaffolding, the former chair said,

We know some students are getting to the end with no exposure [to] critical components of our learning goals, and so how do we make sure that every one of the learning goals that we set out is somewhere in a required part of the curriculum? There’s nothing like a blank face in a capstone course on a key concept. And it’s unfortunately way too common. (Faculty member, Sociology Program, personal communication, October 16, 2013)

In concert with increased understanding of the importance of a solid program framework was an increased awareness of course sequencing and curriculum intent. Program faculty now placed greater value on proper course sequence to ensure mastery of foundational skills. Faculty believed more attention to course sequencing would help students meet expected competency levels of synthesis and analysis expectations in upper division course work.

Actions taken to assess student learning also influenced program faculty conversation related to teaching practices. The Sociology Program’s biennial program
summary indicated giving attention to teaching practices and was prescriptive in the ways faculty should seek to improve them. The faculty’s collective decisions and action represented a change in the conversation around teaching practices. Faculty dialogue shifted from necessary content to better teaching methods, and became a conversation occurring at the program level rather than at the individual course level (Faculty member, Sociology Program, personal communication, October 16, 2013).

In discussing sustainability of assessment efforts, the former chair stated that thoughtful assessment was time consuming and both mentally and physically draining (Faculty member, Sociology Program, personal communication, October 16, 2013). The former chair felt that while the desire may be there, the time and energy to conduct serious assessment would always conflict with other requirements of faculty. Even though there had been solid assessment efforts and effective use of results in place since most of the faculty joined the program, it was questionable whether assessment efforts would be naturally sustainable without continued external pressures and requirements.

**Elements Indicative of Programmatic Organizational Culture Change**

The two programs examined in this study at Kipling are quite distinct. The School of Education is a large entity with programmatic accreditation requirements. By contrast, the Sociology Program is smaller and adheres to University expectations for program level assessment. The following summarizes findings that serve as promoters and/or indicators of organizational culture change occurring at the program level associated with assessment initiatives.
**Requirement as catalyst.** Both the School of Education and the Sociology Program developed their respective assessment plans in response to accreditation standards. The School of Education developed its assessment efforts in response to NCATE accreditation standards, whereas the Sociology Program responded to institutional accreditation requirements.

**Leadership champions.** Leadership personnel, who demonstrated clear support of assessment and sought to convey its importance both in relation to accreditation as well as for student learning, led many of the initiatives undertaken in both the School of Education and Sociology Program. The University’s assessment staff noted that much of the success generated by the School of Education and Sociology Program was due to the assessment championing efforts of the department chair for the Sociology Program, as well as the dean and director of assessment for the School of Education (Director of Institutional Assessment, personal communication, October 16, 2013). Leaders within each program were in the forefront of the efforts to bring the faculty together and generate conversations and actions to define intended learning goals and produce assessment plans that generated meaningful results.

**Consensus based decision-making.** The process of assessment plan development was a collective decision within both the School of Education system and Sociology Program. While NCATE provided the School of Education its expectations of student learning, its collective decision-making revolved around methods to assess learning and ensure alignment with all constituents. The Sociology Program embraced collective
decision-making to define intended learning goals and methods, to assess them, and to make decisions based on assessment results to improve the program.

**Shift in conversation and practice on course offerings and coursework.** Assessment efforts generated collaborative discussion on both the courses offered and syllabi creation within the School or program. Conversations then shifted to the topic of integrating the importance of curriculum fit in achieving student learning goals. Courses, once developed in isolation or out of simple interest, subsequently required rationale relative to improving student learning, and demonstration of how they contributed to overall expected student learning goals within the School or program.

**Influence on curriculum development and teaching practices.** Those interviewed stated that assessment efforts informed areas of improvement in teaching practices (Director of Assessment, School of Education, personal communication September, 13, 2013; Faculty member, Sociology Program, personal communication, October 16, 2013). Evaluation of assessment tool accuracy produced changes to assignments, assessment rubrics, and revealed a need for greater clarity for students regarding learning expectations and assignment completion. Assessment data drove changes in curriculum for the Sociology Program including identifying new requirements for course development, and need for improvement in teaching the linkage between theories, methods and practices within sociology.

**Increased value of program scaffolding.** The School of Education and the Sociology Program implemented changes to their respective programs to improve learning progression. The School of Education established transition points for students
throughout the curriculum to ensure appropriate readiness as they moved towards teacher candidacy and student teaching experiences. The Sociology program paid greater attention to pre-requisites and ensuring the distribution of learning goals throughout the curriculum to add frequent exposure prior to the capstone seminar course. Though each program’s approach was distinct, both effectively began to consider assessment methods that accurately measured student progress and predicted future success.

**Sustainability.** In both cases, sustainability of assessment efforts was questionable were assessment not a requirement. Faculty said that time, energy, and resources were necessary to conduct serious assessment and that there were always competing priorities. Faculty felt that if external pressures were not present to promote the need, along with adequate resources to conduct meaningful analysis, formalized assessment would not be as robust or thoughtful for either the School of Education or the Sociology Program.

Other elements indicative of organizational culture change were also present, but with greater variance between the programs. Discussed below are examples of some of these findings.

**School/program governance.** The School of Education implemented several changes to its governance structure including hiring a director of assessment for the School and introducing a layered committee structure in support of development and implementation of assessment plans. The size of the School of Education and the additional governance structures needed to improve organization and consistency of efforts determined the number of governance changes. The Sociology program’s
governance structure did not change. Assessment plans were developed and implemented within existing program organizational structures. Faculty reported progress to the College and University structure as required.

**Assessment development vs. improvement.** Accredited by NCATE, the School of Education had always been required to conduct assessment. The School’s challenge however, was to demonstrate that it took assessment seriously. As a result, many of the efforts described focused on organizing, attaching usefulness, and validating many of the assessment tools. The combination drove new awareness and increased the usefulness of assessment. The Sociology program engaged in a pure development process that resulted in the initiation of new processes, practices, and an elevated level of collective decision-making.

**Complexity.** While both programs demonstrated successful results and changes based on assessment efforts, the complexity of the effort differs substantially. The School of Education’s assessment efforts had to align with several agency mandates, as well as the University’s strategic goals. For the Sociology Program, faculty values, the strategic goals of the University, and industry expectations drove assessment development efforts.

**Use of assessment.** NCATE and SPA accreditation standards served to inform The School of Education’s curriculum, learning expectations, and goals. Faculty applied assessment to understand student progress at critical transition points in the curriculum, to improve the tools used to evaluate student learning, and to create clarity for students regarding assignment expectations. Assessment efforts also led to revised learning goals regarding professional dispositions of teacher candidates. Through its assessment efforts,
the Sociology program has made many all-encompassing changes to learning goals, curriculum sequencing, syllabi, and teaching practices.

**Institutional Influence on School/Program Assessment**

There are significant differences in the degree to which institutional influences effect the assessment efforts in the two programs. The School of Education formulated its assessment efforts according to the standards set by NCATE and Special Program Associations (SPA). The Sociology Program drew shape and substance from institutional influences.

NCATE standards specified the need for alignment with institutional mission, vision, and goals. Beyond incorporating institutional strategy, program assessment guidelines provided by Kipling administration had very little influence on decisions regarding the assessment of student learning. Given the rigor associated with NCATE standards, it is likely that the process of assessment developed by the School of Education would continue, regardless of changes in assessment practices or requirements by the University.

Kipling’s institutional assessment staff committee members were partners in support of the assessment efforts within the School of Education. The School’s assessment guidebook stipulated that University assessment staff was an integral to the process and critical to the overall assessment plan for the School of Education. Further, University assessment staff also produced much of the institutional data required for NCATE accreditation.
By contrast, institutional influence on the Sociology Program’s efforts has been significant. The changes in institutional governance structures, requirements of capstone courses, and development of institutional learning goals all had structural influence on the assessment efforts of the program.

In general, Kipling relied on changes to organizational structure and methods of governance to convey the importance that assessment of student learning has for the University. Kipling instituted many of the assessment efforts at the same time the university increased its number of full-time faculty. New faculty entered an environment to which they needed to acclimate. It appears that there are many faculty members for whom the institutional process for assessing student learning is the norm rather than a change.

Kipling’s establishment of institutional learning goals had greater impact on the Sociology Program than one might expect. First, the Sociology Program developed a capstone course that assessed student learning relative to program goals and included assessment of institutional learning goals.

Additionally, the Sociology Program sought approval of program courses as general education courses by imbedding institutional learning goals within them. The approach aimed to achieve program course enrollment sustainability by attracting students from all majors. While other mechanisms existed previously to classify program courses as general education, the practice of demonstrating institutional assessment capabilities was new and influenced curriculum development (Faculty member,
Sociology Program; University Assessment Committee, personal communications, October 16, 2013).
Edgington University

Institutional Overview

In existence for more than 130 years, Edgington (or the University) began as a college with one building and 77 students. Today, the University serves nearly 5,500 students, 3,400 of whom are undergraduates. Edgington describes itself as a liberal arts institution emphasizing academic and professional preparation coupled with ethics, leadership, and citizenship. The institution demonstrates its commitment to these pillars by requiring ethics coursework during the first year a student is on campus; incorporating independent research opportunities into many of its majors; and encouraging learning through service related activities for all students. Undergraduate students choose from a wide variety of majors within multiple colleges and schools and may carry their education forward in Edgington’s 20 graduate programs.

Nearly 80% of students attend Edgington full-time with 75% of undergraduate students residing on campus. The large percentage of both full-time and residential students builds a strong sense of student community on campus.

The visit to Edgington focused on reviewing programs within the School of Arts and Sciences (SAS) and conducting meetings with those providing institutional support to all schools and programs. The SAS identified two programs, Chemistry and Environmental Science and Policy (ENSP), as particularly successful in their efforts to develop, implement, and utilize assessment of student learning. The ENSP program had been recognized by an agency within higher education for its efforts and the Chemistry Department received grant monies based on the comprehensiveness of its assessment.
plan, in addition to receiving encouragement by institutional assessment staff to apply for external recognition (Department Chair, Chemistry Department, personal communication, September 25, 2013). To gain understanding of both the process and effort each of these programs dedicated to the assessment of student learning, the researcher interviewed the department chair/program director, members of the faculty, and the associate dean of the SAS, who also served as a faculty member of the ENSP program.

**Institutional History of Assessment Development**

The process of assessment development for departments and programs has a complex past at Edgington. Occurring more than a decade ago, the first iteration of program assessment at the institutional level took the form of a yearlong program review of every major on campus. In the final report, the review identified many activities that enhanced academic quality and evaluated long-term program viability. Faculty, therefore, perceived assessment of academic quality as a mechanism that could eliminate academic programs. Since the initial endeavor, the institution has not initiated any assessment review at the departmental or program level. Responsibility largely rests with the individual schools at Edgington (Associate Provost, personal communication, September 26, 2013).

After the one-time occurrence of program assessment mandated by the university, institutional efforts focused largely on improving support structures and efforts to assess institutional learning outcomes within general education. In 2010, the vice provost, who had also served as dean of the SAS during his tenure at Edgington, communicated the
need for stronger assessment efforts. According to historical memos, the vice provost stated that there was a need to improve direct assessment. Direct assessment is an evaluative method that provides evidence of student learning based on student work. The vice provost further indicated that too much of Edgington’s assessment efforts depended on end of course student satisfaction surveys, also known as an indirect assessment method. Such surveys were not reliable as an indicator of progress in student learning.

Additionally, the regional accreditor in a previous visit to Edgington noted improvement in the University’s assessment efforts, but also indicated more work was required to meet the regional accrediting body’s evolving standards on assessment (Director of Institutional Assessment, personal communication, September 25, 2013). Important for the University's next accreditation review was providing evidence that data collected on student learning subsequently improved academic quality. Finally, many of the programs offered at Edgington hold programmatic accreditation and require detailed evidence of student learning. The vice provost also stated in a memo that implementing a University-wide plan to assess common skills such as critical thinking and writing would enhance existing assessment of programs with secondary accreditation.

In preparation for its upcoming regional accreditation visit, the vice provost established a curriculum assessment committee and appointed its members. Committee members were directly responsible to the provost’s office regarding assessment development efforts (Director of Assessment, personal communication, September 25, 2013). Additionally, the vice provost added the position of director of assessment to the institutional structure. The vice provost left Edgington shortly after the formation of both
the committee and addition of personnel, but the initial structures remained in place and continued to function.

With the departure of the vice provost, Edgington restructured support systems for institutional assessment. From 2010 to 2013, the Office of Assessment increased to include the positions of associate provost for curriculum and assessment, director of assessment, and an assessment coordinator. Further, the curriculum assessment committee, established by the vice provost, became a standing committee within the Faculty Senate. All of these changes occurred in support of improving capacity for robust assessment of general education. Though these individuals have spent most of their time on the assessment of institutional learning goals, initiatives to engage with programs of study were also underway.

In 2011, a memo, sent by the director of assessment to the chair of the University’s assessment committee, reiterated that the plan, formulated by the former vice provost for improving assessment efforts at Edgington, would remain. The director also communicated that the recently restructured office of assessment would begin to work with the individual colleges to identify ways to align individual program assessment with Edgington’s assessment of institutional learning goals. The memo indicated that responsibility for assessment of student learning at the program level would rest with the colleges within the University, and provided examples demonstrating no need for alterations to program assessment. Rather, program faculty members were to identify components within their assessment efforts that had the ability to serve in the effort to assess institutional learning goals. The institutional office of assessment’s efforts to
engage departments and programs in conversations on assessment of student learning have been slow. Staff members within the office have introduced themselves to programs and departments as a support system for programmatic assessment and not as the authority over program assessment (Associate Provost, personal communication, September 26, 2013). The director of assessment further commented on the importance of these conversations saying that,

The first part is trying to build trust. . . . Where I tend to make progress is [when] we zoom in on what is important at that point in time for the department or the program, and for me, our common ground is really improving teaching and learning. (Director of Assessment, personal communication, September 26, 2013)

While not every program and department at Edgington has established an assessment plan yet, the office of assessment is hopeful that those programs recognized for their efforts will serve as mentors for other programs and departments. Institutional assessment staff members stressed the importance of language used regarding assessment, commenting that,

A lot of the initial conversations with departments have been trying to break down that perception of the function of this effort is to check a box for institution accreditation. . . . Faculty and staff are going to push back against that. (Director of Assessment, personal communication, September 26, 2013)

Messaging from the office of assessment consciously emphasized that current assessment efforts focus on student learning, and not the elimination of programs. Assessment staff remarked that when the message of student learning is properly communicated, faculty do not equate the exploration of what and how students are learning, with assessment (Director of Assessment, personal communication, September 25, 2013).
Institutional Context for Program and Department Level Assessment

Given Edgington’s decision to assign responsibility for program and department level assessment to the schools and colleges, the former dean of the School of Arts and Sciences (and later vice-provost for Edgington) began efforts to introduce assessment of student learning to the School shortly after arriving in 2003. The dean’s passion and expertise in academic assessment brought about movement within the SAS to develop assessment efforts focused on student learning and to incorporate both direct and indirect assessment. The dean was consistent, continuous, and patient in his approach to provide tools for departments to help develop their assessment efforts (Program Director, ENSP, personal communication, September 25, 2013). Efforts to provide training and development for faculty within the SAS included providing both internal workshops, as well as sessions with outside consultants from Wabash College, a college widely respected for its assessment efforts in the liberal arts.

While some departments responded well, others found the dean’s concepts difficult to understand (Associate Provost, personal communication, September 26, 2013). A former chair of a large program within the SAS spoke to the complex nature of the dean’s assessment planning activities for larger programs. The former chair disclosed that the complexity of the assessment planning coupled with the leniency in time provided by the dean to execute assessment efforts might have been the cause of some difficulties larger programs encountered regarding consensus (Associate Provost, personal communication, September 26, 2013). Among the programs and departments that responded well to the dean’s efforts to bring assessment of student learning to the
SAS were the Chemistry and Environmental Science and Policy (ENSP) programs (Associate Provost, personal communication, September 26, 2013).

**Program Assessment and Organizational Culture**

Understanding the internal view of organizational culture change necessitated a two-day visit to Edgington that included interviews with members of administration and staff as well as department chairs and faculty from the Chemistry and Environmental Science and Policy (ENSP) programs. Interviews included all full-time faculty members directly associated with the ENSP program, as well as three faculty members (43%) from the Chemistry Department.

The researcher selected chemistry faculty for interviews based on their long tenure with Edgington and their ability to comment on organizational culture both before and after implementation of assessment of student learning.

**The Environmental Science and Policy Program at Edgington.**

The Environmental Science and Policy Program (ENSP) is an interdisciplinary program emphasizing the study of environmental effects, ecology, and conservation, as well as understanding environmental politics and policy-making. As an interdisciplinary program, it includes three full-time faculty members and also coordinates with faculty in other programs to deliver the ENSP curriculum to students. Following guidance from the dean and from consultants to develop its plan for assessment, the ENSP Program currently displays three overarching program goals for its students. These goals are: 1) understanding how data inform public policy; 2) gaining problem solving skills; and 3) developing an area of specialization.
The assessment efforts of the ENSP program span more than a decade with results consistently used for curricular improvement and innovation. Assessment activities include both faculty and community partner review of student work, as well as general feedback from students, alumni and community partners to ensure current learning goals and outcomes are appropriate for an evolving industry.

**Assessment planning and process implementation.** According to documents outlining the program’s assessment history, the assessment of student learning using both internal and external methods began just shortly after the program’s inception. At the time of the research, the program had an internal review process that cycled every two to three years and evaluated the program’s ability to meet the needs of its students. Coinciding with the internal review process, external evaluation of the entire program occurred by conducting a comparative analysis with other institutions, along with feedback from alumni and community partners and consultants. Though the assessment practices of the program are now considered routine, initial development was not without opposition.

During an interview, the ENSP program director openly disclosed an initial personal resistance to the dean’s request for assessment of student learning. The director reflected on his concerns stating,

*I for a longtime considered myself anti-assessment. Not in the sense that we shouldn’t try to figure out whether we’re doing a decent job, but in the sense that I felt like any metric that an institution could use would focus on stuff that is easy to measure. . .I felt like this was going down some dangerous road, not just a road where I have to do more paperwork.* (Program Director, ENSP, personal communication, September 25, 2013)
The director’s concerns stemmed largely from envisioning a future state of diminished curriculum rigor due to choosing cursory learning outcomes that could be easily measured and normed. Further, the director commented that choosing easily assessable learning objectives marginalized the holistic approach to learning often associated with both liberal arts and interdisciplinary programs (Program Director, ENSP, personal communication, September 25, 2013).

Despite concerns over assessment, the program director agreed that if the development of assessment plans was indeed in the hands of the faculty, the risk of marginalization was low. A second faculty member, who also serves as the associate dean for the SAS, echoed these sentiments indicating that it was important for faculty to realize that if the assessment efforts attempted did not work, they could simply stop and try something else. Portraying efforts in assessment as analogous to the hours spent conducting research on hypotheses that ultimately do not pan out, only to start over, resonated well with program faculty (Faculty Member ENSP and Associate Dean, personal communication, September 26, 2013). Perceiving assessment of student learning as no more or less rigorous than research efforts within the discipline was helpful and encouraged faculty to assume an exploratory approach to establish a meaningful plan. Additionally, the program director acknowledged the benefit of both the internal professional development sessions on assessment and the series of external workshops conducted by Wabash College on assessment plan architecture. The education gained during these professional development sessions helped faculty affirm that assessment of
student learning should enable them to receive meaningful results leading to meaningful actions (Program Director, ENSP, personal communication, September 25, 2013).

Developing the assessment of student learning plan for the ENSP program began with establishing expected learning goals for students upon graduation. To ensure intentionality and critical thought to the exercise, the program created a table, displaying all courses required to complete each specialization within the program, and identified which goals each course addressed. The table also described how the learning goals within each course were evaluated. Creating a visual representation of the curriculum the ENSP Program faculty ensure that all students received exposure to the expected learning goals regardless of the path chosen to complete the major.

Having effectively mapped their curriculum to the programs’ intended learning goals, ENSP faculty chose one method to directly assess student learning, and two methods to indirectly assess perceptions of the program in terms of its ability to achieve its stated goals. For its direct assessment efforts, The ENSP Program chose to use student work from the capstone course as the primary form of direct evaluation of a student’s overall learning from the program.

The capstone course is a requirement of Edgington’s institutional curriculum framework. As defined in public documentation, programs needed to include an experience or project whereby students demonstrate their ability to synthesize acquired learning. The ENSP capstone project was designed to be a research project conducted within the community, with students presenting their work at the end of the semester to all faculty members associated with the ENSP Program. Combined with evaluations from
the community partners who supported the students’ projects, the faculty used all points of collected data to identify changes that may be necessary to fill in gaps in learning and to augment areas of excellence.

To complement the direct assessment efforts, the ENSP program also incorporated two methods of indirect assessment. The program faculty felt that using results from the University’s system-wide student survey in concert with a program specific alumni survey would assist in evaluating both how the program helps the University achieve its mission, vision, and goals, and the long-term effectiveness of the program.

**Use of assessment.** The program’s work to establish student learning goals as well as methods to measure student mastery of learning expectations, helped faculty identify specific changes to curriculum, and teaching and learning practices. Both the program’s 2011 report prepared for its official program review, and a report prepared for additional external evaluation by a national higher education agency, note the use of student work in capstone courses to evaluate students’ accumulated competencies throughout the program. Evaluation included faculty measurement of intended learning goals and evaluation surveys completed by the external community members involved with the students’ projects. The comprehensive evaluation by both faculty and external stakeholders involved with student capstone projects revealed a significant gap in student learning. Students were beginning their senior year projects ill prepared to conduct field research. Faculty realized that opportunities to engage in fieldwork research prior to the capstone project were not readily available, nor was there enough faculty support to
develop students’ field research skills. Due to the critical nature of the deficiency, the program faculty initiated corrections to enhance student fieldwork knowledge by adding concentrated field research opportunities to the curriculum. Additionally, program faculty lobbied successfully for an additional faculty member to support students’ skill development in fieldwork. The ENSP Program was the first program at Edgington to receive human resource allocations based on results of student learning assessment data.

In 2011, the capstone project evaluation process identified project development skills as an additional area of deficiency. While it was clear that through their coursework students mastered the various components essential to developing a project, helping students understand how the pieces fit together was missing. As a result, the ENSP program faculty created a compulsory project management and problem-solving development course and added the course to the sophomore year curriculum. As determined by faculty members, performance at the sophomore level and competencies demonstrated during the senior-year capstone project became the indicators of success for the newly created course.

To effectively measure student improvement in project management and problem solving, faculty developed and applied a rubric to the new skills development course. Initially implemented with the 2012 cohort, faculty anticipated using this same scoring rubric to assess improvement in student abilities in the senior-year capstone course. Since its development, program faculty incorporated the additional method of direct assessment into the overall assessment plan for the ENSP Program.
Additionally, results from student course evaluations, designed to help students reflect on their own mastery of learning goals, indicated concerns over mathematics competency and internship preparation. Faculty expected the new problem-solving skills development course to address the issue surrounding internship preparation, but chose to address the concern of mathematical preparation holistically throughout the program curriculum. Faculty integrated more quantitative analysis into coursework on economic policy decision-making and population dynamics relative to the environment. The addition of quantitative analysis afforded students an opportunity to transition from mathematical preparation taught in general education courses, to mathematical analysis needed within the environmental science and policy-making industries.

Finally, faculty noted that, in some instances, students needed to take courses in an order that would ask them to demonstrate mathematical concepts that built on the concepts taught in another course. Given the interdisciplinary nature of the program, it was easy for students to end up sequencing coursework improperly. As a result, the faculty created four-year plans based on student interest within the ENSP program as recommended sequences of coursework.

**Elements of organizational culture change associated with assessment efforts for the ENSP Program.** At the time of this study, the ENSP program’s assessment process and use of findings to improve areas of deficiency was evident, and substantially different from the inception of the program. Several tangible and intangible changes were noted.
When the program’s faculty first entertained assessment planning, resistance initially existed. However, through the concerted efforts of the faculty to develop intended learning goals most critical for students upon graduation, faculty began to identify areas where evaluation of student performance against expected learning goals had tangible value. The need for assessment shifted from an exercise serving to satisfy the SAS and the University to a practice that generated meaningful information to improve student learning.

Additionally, throughout the assessment work conducted by the ENSP Program, the concept of intentionality or “fit” of curriculum became the center of conversation. When asked if such conversations occurred prior to the development of assessment plans, all faculty members within the department commented that no such conversation in the context of curriculum development took place. Discussion on curriculum transitioned from a dialogue about what should be taught, to what should be learned, and how curriculum should “fit together” to accomplish those goals (Faculty Member, ENSP Program, personal communication, September 26, 2013). Changes made by the faculty aimed to introduce specific learning objectives earlier in the curriculum to improve preparedness of students for capstone courses.

Further, the concept of curriculum fit and resulting conversations and changes also led the ENSP program to consider how the program curriculum fits in fulfilling some of the stated institutional learning goals. During an interview, the program director indicated that changes to program curriculum also resulted in enhanced conversation surrounding the institutional learning objective of writing. Such conversation and
consideration was non-existent at the inception of the ENSP program assessment (Program Director, ENSP, personal communication, September 25, 2013).

The ENSP Program faculty’s assessment efforts that consistently used student work derived from the senior capstone projects resulted in continuous improvement in courses, curriculum, and teaching and learning practices. The faculty member who also serves as associate dean for the SAS commented on the program prior to assessment efforts by stating:

The ENSP program. . . was sort of cobbled together, like a lot of environmental science programs at small liberal arts were cobbled together. It’s just a mound of courses that are taught across different departments and there’s not a lot of outcome based coherency in how they necessarily fit together. But, if you do a little bit of biology, a little bit of chemistry, and you go outside, you must know something about environmental science. (Faculty Member ENSP and Associate Dean, personal communication, September 26, 2013)

Assessment data specific to the identified learning goals of an interdisciplinary program like ENSP shifted the foundation from which curriculum development began and advanced understanding and value of curriculum fit (Faculty Member ENSP and Associate Dean, personal communication, September 26, 2013).

Moreover, for the ENSP program, the faculty’s effective presentation of internal assessment results, coupled with what external partners expected of students, created a compelling case to academic administration for the addition of a full-time faculty position to the program. According to the long-standing faculty of the program, the approval of additional faculty based on assessment was a substantial change. From that point forward, the ENSP program based resource requests on the merits demonstrated through effective use of assessment. The associate dean commented,
It is now almost incumbent when you’re making a budget ask to the dean and I about technology fee dollars that will be allocated out of the college operating budget or capital equipment upgrades or faculty lines, that has to be connected back somewhere. The need can’t be, ‘it would be really sweet if we could have an electron microscope.’ You have to be able to connect that $500,000 ask to very clear programmatic outcomes and signs that efficiencies are real and critical for the completion of the degree. (Faculty Member ENSP and Associate Dean, personal communication, September 26, 2013)

When questioned whether the ENSP program would continue assessment efforts if no longer required by the SAS, faculty indicated that they would continue the assessment learning efforts established to date. However, the program director questioned whether their efforts in assessment would continue to advance or stagnate in saying,

We would certainly continue doing the things we’re doing. The question is how high a priority would it be? It is hard to figure out how to do assessment. It is hard to collect the information you need. So the answer to that is I am not sure how hard we’d push, not because we don’t believe in it, but just because it takes time and you just don’t have the time to do everything. (Program Director, ENSP, personal communication, September 25, 2013)

Further, given the time constraints and demands on faculty in a small, interdisciplinary program, if the necessity for assessment was not time-bound, the desire to conduct assessment might be there, but its priority would diminish without the SAS requirement (Program Director, ENSP, personal communication, September 25, 2013).

The Chemistry Department at Edgington

Edgington’s Chemistry Department, housed within the School of Arts and Sciences (SAS), includes seven full-time faculty and eight staff members. The full-time faculty members are not only knowledgeable scholars within their discipline, but are also dedicated to teaching with many receiving outstanding teacher awards during their tenure. The department’s program goals focus on students acquiring a foundation of
scientific knowledge and experimental skills including classical concepts, current developments, and emerging areas in chemistry. The desired outcome for students is to develop curiosity, logical thought processes, technical and communication skills, enthusiasm to pursue knowledge, and to function as scientifically literate citizens. Core learning objectives include learning the language, methods, and models of chemistry, and understanding modern instruments and laboratory techniques. The curriculum also includes a strong emphasis on student research and encourages students to engage in research activities during their first year.

Assessment planning and process implementation. The Chemistry Department began its assessment efforts in 2005 as a response to the dean’s request that all programs and departments engage in the assessment of student learning. The department chair mentioned the dean’s continuous advocacy for assessment and a desire to help faculty understand how to develop and implement assessment plans as the catalyst for formalized assessment efforts within the Chemistry Department (Department Chair, Chemistry Department, personal communication, September 25, 2013). Further supporting the department’s efforts in assessment, however, were the certification requirements of the American Chemical Society (ACS). Though the ACS does not explicitly state the need for the assessment of student learning, it outlines learning expectations for chemistry students and measures the effectiveness of Chemistry Departments through student performance on exams produced by the Society. The faculty at Edgington, as a baseline for making curricular adjustments to address noted student deficiencies, used the ACS student exam results routinely.
While there is a form of assessment that takes place in the Chemistry Department derived from ACS exam results, faculty also gave critical thought to establishing a set of comprehensive learning goals for students. The department chair disclosed that the department struggled to develop a more inclusive plan until a faculty member devised a method to associate learning goals by modifying an acronym used commonly in chemistry, VSEPR, to VCEPR. Though the acronym VSEPR (Valence Shell Electron Pair Repulsion) itself had nothing to do with assessment, it served as a tool to create learning goals that could be remembered (Department Chair, Chemistry Department, personal communication, September 25, 2013). As result, the Chemistry Department identified overarching learning objectives that evaluate student progress in the ability to Visualize, Calculate, Experiment, Present, and Reflect (VCEPR) on their work. Within each of these themes, specific learning expectations are both defined and consistent with the expectations of the American Chemical Society.

Upon creation of the initial assessment framework, faculty reviewed courses within the curriculum and assigned a level of relevance to each learning goal in a particular course. For example, some courses within the chemistry curriculum have high relevance for creating learning in visualization, where others focus on reflection and analysis. Consistent with common practice in chemistry curriculum development, faculty members designed the curriculum to be cumulative in nature. As defined in the department’s assessment plan, concepts are introduced early in the curriculum and applied in increasing levels of detail and varied contexts in later courses.
To evaluate student learning each year, the department selected four methods of assessment. First, at the individual course level, faculty selected two learning goals to assess for each of their courses. Faculty then provided a class performance report at the end of each year along with supporting documentation that included:

- the assessment instrument used, such as an exam, paper, or presentation;
- learning results compared to the expected outcomes;
- rationale for the outcomes achieved and;
- future plans for improvement where needed.

Second, instructors administered ACS exams in many of the chemistry courses to assess student performance related to competencies expected by the ACS. These exams were part of the final examination or constituted the entirety of the final exam for students. Third, the capstone experience for chemistry students included assessing two learning outcomes associated with presentation and reflection categories. All Chemistry Department faculty members were present for senior project presentations and provided feedback on student performance. Faculty research advisors summarized feedback for evaluation. Finally, the third and fourth methods of assessment were a University-wide student survey and a chemistry major alumni survey to gather feedback on the short and long-term effectiveness of the program.

To bring meaning to the data collected, the assessment plan specified a faculty review of assessment data three times a year. Faculty members reviewed and discussed collected data, and proposed curricular changes for the upcoming year in the August session. Meetings in January reflected upon feedback from student and alumni surveys,
while the third meeting, held in May, focused on data gathered from the capstone experiences. Time constraints have not always made all three meetings possible each year (Department Chair, Chemistry Department, personal communication, September 25, 2013).

**Use of assessment.** To organize their findings, the Chemistry Department produced an annual assessment report that included the learning outcome evaluation, the methods used to measure the expected goal, and the subsequent findings of forthcoming actions. The table below demonstrates the basic outline of the template used.

Table 2
*Chemistry Department Assessment Report Template*

<table>
<thead>
<tr>
<th>Student Learning Outcome</th>
<th>Key Indicators/Procedures</th>
<th>Findings</th>
<th>Use of Results/Action Plan</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overarching learning goal, and specific outcome identified underneath, designed to answer the question, what specific measureable outcomes do we want to achieve?</td>
<td>What sort of measurements are used, direct or indirect options such as ACS exams, homework assignment, labs competency rubrics, and presentations rubrics</td>
<td>Findings presented on aggregated data</td>
<td>Outline of decision to hold course, adjust homework, adjust content, or adjust content or curriculum sequencing.</td>
<td>Expected timeframe for implementation of defined actions</td>
</tr>
</tbody>
</table>

In the most recent assessment report drafted by the Chemistry Department, faculty presented descriptions of results associated with the learning goals to “Visualize” and “Calculate.” Assessment of learning expectations for both learning goals involved the following products of student work.
- ACS exam results;
- Four exams and ten homework assignments used when there was no appropriate ACS option for non-lab courses.
- Random samplings of student lab work where faculty used rubrics designed to measure instrumental analysis, data analysis performance, and quality of student presentations.

As these two learning goals comprise many of the technical mastery requirements of the Chemistry Department, future changes and actions noted by the department involve revisions to the material covered and to methods of presenting information to students. In some cases, the department made recommendations to increase the credit load associated with courses involving the computational aspects of chemistry. In other cases, suggestions to emphasize one topic over another, in accordance with ACS exam needs and results, have taken place.

The Chemistry Department also implemented a change relative to senior year chemistry presentations. Utilizing the program’s capstone course requirement in the senior year, faculty created the senior seminar and presentation requirement by asking themselves “what they wanted chemistry presentations to be about” (Faculty Member, Chemistry Department, personal communication, September 26, 2013). Dissatisfied with a student’s ability by their senior year to make a scientific presentation, faculty added the requirement for scientific presentations to a student’s junior year. Faculty believed the change allowed them to “up the ante” for senior presentations, given the experience now afforded in the junior year. Additionally, the joint audience allowed juniors to see
expectations in terms of presentation ability by the senior year (Faculty Member, Chemistry Department, personal communication, September 26, 2013). While the evaluation of these presentations was not directly included in the Chemistry Department’s assessment reports, the change directly aligned with the department’s stated learning goal to present a research project to both peer and professional audiences.

Formalized assessment also afforded the Chemistry Department additional equipment. By extension of having an assessment plan, the department was able to submit a grant application clearly demonstrating the need for additional equipment. In the grant, the Chemistry Department claimed that specific instruments would assist in augmenting their efforts to help student achieve learning goals associated with “Visualization.” The thoroughness of the assessment plan itself provided convincing proof of need and resulted in obtaining grant monies for the department (Faculty Member, Chemistry Department, personal communication, September 26, 2013).

Elements of Organizational Culture Change Associated with Assessment

Efforts for the Chemistry Department. There has been, according to the chair, a subtle shift in the perception of the value of assessment. When the dean first introduced assessment of student learning, the department chair described both a genuine curiosity, a concern about its purpose, and was uncertain how to assess student learning formally (Department Chair, Chemistry Department, personal communication, September 25, 2013). The chair stated that during the initial development of assessment plans, faculty needed substantial guidance and referenced the dean’s support of the effort by saying,

The dean [didn’t] give up on his intervention, if you will, or organization of meetings, but also [provided] some guidance. Because telling someone that it is
important is not going to do it. I think it’s more about why is it important for our students. And it got dropped on the head again and again and again. And, eventually I [was] convinced. I [was] totally on board with that. But, it took time. (Department Chair, Chemistry Department, personal communication, September 25, 2013)

While the department chair said there was departmental buy-in, frustrations were also shared in that data are regularly collected for assessment purposes, but substantive change coming out of assessment data, that is different from changes they would have made without formalized assessment, has yet to be realized. The department chair also mentioned the need for education and re-education about what assessment tools to use, and, how the department might use the results (Department Chair, Chemistry Department, personal communication, September 25, 2013).

Despite the uncertainty around the notion of assessment data driving change, all department faculty interviewed identified the practice of collecting assessment data as embedded within the department. The faculty indicated that they found value in collecting the data, and one described data collection as important to him to see “what I’m doing wrong” (Faculty Member, Chemistry Department, personal communication, September 25, 2013).

Throughout the interviews, faculty reflected on conversations regarding course or information sequencing, course credit expansion, and adjusting earlier coursework to better prepare for senior year capstone courses and projects. One faculty member indicated that,

Having to do assessment does provide a formal place for [those conversations] to occur in a way that would have maybe happened more informally and less structurally. So, I do think it does promote those kinds of discussions. (Faculty Member, Chemistry Department, personal communication, September 26, 2013)
Relayed during interviews as a significant change, however, was the use of assessment in the justification for and procurement of equipment for the department. The ability to obtain resources for the department due to assessment planning placed value on the process of formulating a plan for assessment. As a result, use of assessment plans has become an integral part in compiling applications for grants (Faculty Member, Chemistry Department, personal communication, September 25, 2013).

It was unclear to faculty members interviewed and the department chair whether assessment efforts produced substantive change to the elements making up organizational culture. Faculty described many of the changes they have made to courses and teaching and learning practices as not something driven by assessment. However, faculty felt that conducting assessment afforded them an ability to see if the pedagogical change worked, and if students were learning material as intended. Faculty described assessment data as largely a confirmation of what they already know to be the weak and strong points of student learning. Further, one faculty member commented that the practices and behaviors that might be associated with assessment were already happening in a less formalized manner within the department (Faculty Member, Chemistry Department, personal communication, September 26, 2013).

When asked about sustainability of their assessment efforts were no external pressure in existence, faculty responded they would continue to collect data from lower division chemistry courses. Faculty felt that the larger class sizes and multiple sections of lower-division course work provided substantial data and that student learning assessment data had statistical significance. However, they felt the time and effort put
into assessment for upper-division courses did not produce a benefit valuable enough to continue. They indicated that upper-division classes were often smaller, and the data collected were statistically insignificant. Further, faculty felt that with smaller class sizes, there was naturally a greater understanding of individual student progress (Faculty Member, Chemistry Department, personal communication, September 25, 2013).

**Elements Indicative of Programmatic Organizational Culture Change**

The programs studied at Edgington provide an opportunity for interesting comparisons and contrasts. Both are disciplines within the sciences, reside within the SAS, and report into the same University administration. However, the two programs are distinct from one another based on the existence of secondary accreditation for Chemistry Department, and the interdisciplinary nature of the ENSP Program. The following summarizes findings that serve as promoters and/or indicators of organizational culture change occurring at the program level associated with assessment initiatives.

**Requirement as catalyst.** Both programs felt that they initially received pressure from the dean of the SAS to develop and implement formalized assessment of student learning. Both also indicated that the dean of the college was encouraging assessment because of regional accreditation requirements.

**Leadership support.** Both programs indicated that the dean’s communication and organized workshops on assessment created faculty buy-in for assessment. Specifically, both the dean’s communication and external workshops provided by the University communicated to faculty that assessment plans created must be able to generate important information and be useful to faculty. Additionally, both the program
director for the ENSP Program and the department chair of the Chemistry Department responded to the concept of meaningful assessment, and supported their program’s development efforts.

**Value of autonomy.** Both the Chemistry Department and ENSP Program took ownership of their assessment programs through communication and education about the assessment process. Rather than dictating a standard structure for assessment of student learning, administrators provided education and methods allowing faculty the freedom to develop plans meaningful to their respective programs. Faculty within each program/department developed intended learning goals for students that resonated with faculty values and were specific to their fields of study. In both cases, the need to identify meaningful and memorable learning goals resulted in conversations that codified expectations for students.

**Methods of assessment.** In terms of assessment planning and execution, both the ENSP Program and Chemistry Department used direct and indirect methods of assessment. Both programs also commented on the value of capstone courses in evaluating the cumulative knowledge gained for students within the respective programs.

**Shift in department and program practices.** The practice of assessment of student learning has become routine for both ENSP and chemistry faculty. Faculties within departments have collectively determined the learning goals, decided which learning goals will be assessed, when the assessments will take place, and convene on findings.
Resources acquired as a result of assessment efforts. Both the ENSP Program and Chemistry Department have resource benefits attributable to their assessment efforts. The ENSP Program assessment results demonstrated a gap in learning requiring the addition of a faculty member. The Chemistry Department’s assessment plan demonstrated a clear need for equipment in order for students to reach expected learning goals. In both cases, assessment enabled well-defined analysis and justification to bring about acquisition of faculty or equipment.

Change in expected skillsets of faculty. Both the department chair for chemistry and the program director for ENSP commented on a general need to be more educated in the practice of teaching and learning. Prior to the requirement of more formalized assessment of student learning, faculty expectations focused more on expertise in the field. While expertise in the field of study is still necessary, program and department leadership felt there was now an additional requirement to have knowledge and expertise within teaching and learning practices. In both cases, value was placed on the workshops available to learn more about pedagogy as well as activities that were most impactful for student learning (Program Director, ENSP, personal communication, September 25, 2013; Department Chair, Chemistry Department, personal communication, September 25, 2013).

Moderate sustainability. Both programs were queried about sustainability of their efforts and indicated that assessment of student learning would carry on in some form, but perhaps in less formalized fashion. For the ENSP Program faculty, the desire to make change based on data would remain, but were there not an external push, its priority
would diminish and reviewing assessment data would not be as consistent. Faculty within the Chemistry Department indicated that collection of data to validate that change was working would continue in lower division courses, but assessment of upper-division courses would be less likely to continue.

Other elements indicative of organizational culture change were also present, but with greater variance between the programs. These findings included:

**Use of assessment.** The ENSP Program has tied more of its decision-making and conversations on curriculum fit and course sequencing to assessment data than has the Chemistry Department. While both have made changes to their curriculum, the Chemistry Department treats its assessment efforts as a lagging indicator as to whether decisions made to improve student understanding are having an impact. Conversely, the ENSP Program approached change based on data collected. While both have made distinct changes based on information gathered out of the senior capstone courses, the Chemistry Department did not report that those changes were in response to assessment efforts. The opposite occurred for the ENSP Program as faculty directly correlated curriculum changes in the capstone course findings to their assessment of student learning.

**Shift in the value of assessment.** Both programs associated value with assessment that was not present prior to inception of the efforts. However, there are substantive distinctions in what the value is and just how much value assessment of student learning provides. The ENSP Program indicated resistance to assessment, and the Chemistry Department questioned the value of the effort. Over the course of time
however, both have conceded that assessment of student learning has value. Within the ENSP Program, the value associated with assessment was in the ability to make curriculum decisions to improve student learning based on student performance. The Chemistry department found value in the assessment effort as means to validate or invalidate whether changes made to teaching and learning had a positive impact for students. Further, the Chemistry Department faculty questioned whether assessment efforts have done more than provide a formal place for conversations on changes to curriculum that were already occurring less formally.

**Curriculum development practices.** The conversations had by the ENSP program faculty associated with curriculum have changed substantially as a result of assessment efforts. Prior to the assessment, more attention was given to the collection of courses that should be offered to constitute a degree in environmental science and policy. With assessment in place, program faculty began considering the goals for student learning, defining learning concepts that need to be introduced, considering when students should achieve certain competencies, and where gaps in learning occur.

With the Chemistry Department holding accreditation with the ACS, the conversation on goals for student learning was not thought of as a change for the department. Further, the curriculum for the study of Chemistry was naturally cumulative and faculty felt that no significant change in curriculum development has occurred. Rather, the conversations on student learning were now more formalized and have been linked not only to the ACS, but also to the stated learning goals for the department.
Institutional Influence on Program/Departmental Assessment

Edgington’s institutional assessment efforts appear to have had only minor influences on program level and department level assessment development and implementation. Edgington’s program review process to assess academic quality in 2001 led to program closures and restructuring. The consequence was lack of trust in institutionally driven assessment efforts. As a result, institutional assessment staff have carefully portrayed for program faculty that they serve as an assessment support system for the schools and programs within Edgington. At the time of the research, there were still times their efforts to support schools raised concern about the use of data collected, and if it would actually be used to support faculty or help student learning (Director of Institutional Assessment, personal communication, September 26, 2013).

Though institutional influence has been limited, the leadership within the SAS was highly engaged and committed to introducing assessment of student learning. Both the ENSP Program and Chemistry Department mentioned the presence of SAS leadership during discussions on programs assessment. When analyzing the need for assessment, the dean remained committed to the notion that assessment of student learning is a component of successful reaccreditation. However, the dean also sought to demonstrate that if assessment of student learning occurred properly, it would bring value to those doing the work (Director of Institutional Assessment, personal communication, September, 25, 2013). Through the internal and external workshops orchestrated by the dean, the leaders of the two programs studied felt supported in a manner that enabled them to facilitate development, execution and utilization of their assessment plans. The
dean’s approach to frame the need for assessment as an activity that first services students and faculty, and then naturally addresses the needs of accrediting bodies, helped to shift the value of assessment for program faculty (Director of Institutional Assessment, personal communication, September 25, 2013).

Embedding values, behaviors and practices often required leadership to answer the question, “what’s in it for me?” SAS leadership recognized the cogency and seriousness of the ENSP Program’s assessment efforts that ultimately justified to leadership the need for additional faculty. The role SAS leadership played in authorizing resources based on results helped faculty members attach greater value to efforts associated with assessment of student learning.

It appears that the role SAS assumed for program level assessment largely constituted two activities. The first was consistent communication on the value of critical information on student learning. The second was to provide education and support during the initial development and implementation phases of assessment planning. It seems that the SAS worked within the overarching culture of autonomy afforded to programs within the school. As a result, the strength and commitment of the leaders within the two disciplines studied enabled faculty to develop consensus on a plan to improve understanding of student learning, and find value in the effort.
Gerhard College

Institutional Overview

Gerhard is a four-year, residential liberal arts college with a strong religious affiliation, founded in the late 19th century. Gerhard encourages open discussion of beliefs and welcomes a diverse community of differing backgrounds and creeds. With more than 90% of Gerhard’s 3,000 plus students living on campus, an ethos of intense community and abundant opportunities to promote holistic learning are prevalent. As part of its commitment to a well-rounded learning experience, Gerhard advocates global learning with nearly 70% of students engaged in various types of international study. A few days spent on Gerhard’s campus leaves the impression of highly engaged, practical students, and a faculty and staff intensely attentive to student success.

Gerhard has been lauded by national organizations in higher education for its ability to gather, evaluate and use its assessment data to improve its efforts in teaching and learning. More recently, the College underwent its institutional accreditation review where its assessment efforts were evaluated by the accrediting body and determined to be in full compliance with accreditation standards. As a result, Gerhard is an excellent institution to study to understand how attitudes, values, behaviors, and practices of faculty and administration were influenced by the process of developing and implementing program and department level assessment. Further, Gerhard possessed a wealth of historical documentation and had several willing participants to share the ways in which the program’s organizational culture changed or was affected by the initiative.
To understand Gerhard’s efforts, documentation about Gerhard’s assessment process and results was reviewed. Included in the document review were Gerhard’s latest self-study, strategic plans, publicly available memorandums to faculty, and papers published on the College’s assessment efforts. Documentation provided an in-depth view of the College’s process to develop and implement efforts to understand how well students were learning, as well as described factors that the faculty, programs, departments and the Institution considered most critical. While documentation provided a wealth of information regarding Gerhard’s assessment processes, research included interviews of faculty, program or department heads, as well as institutional leadership in academic affairs and research to explore the perceived salient features relative to specific programs. Interviews consisted of individual and group sessions, as well as observations of departments engaged in developing assessment efforts. In addition to discussion on process, interviews invited individuals to speak honestly about what they felt had or had not changed within their organizational culture.

**Institutional History of Assessment Development**

Gerhard’s current iteration of assessment began with analysis of the failures from its first attempt during the 1990s. Reflected in documentation and affirmed through interviews, the initial effort was largely directed by College administration. As a result, the faculty and community felt as though many demands were made to meet accreditation requirements. During the previous assessment attempt, faculty had engaged in a great deal of work, only to realize no tangible benefit for those charged with doing the work, while at the same time failing to fully meet accreditor expectations. Further complicating
the landscape, changes in accreditation standards included explicit expectation for assessment within all the College’s academic programs, and for wide spread engagement in those assessment efforts.

Gerhard needed to overcome the missteps of the first attempt and adjust to new accreditation requirements. The College needed both a structure and communication plan to ensure that the forthcoming attempt would not end as another failure. Instrumental in the new efforts was the appointment of a faculty member to serve as director of assessment. Supplied with appropriate teaching release time, the director of assessment worked to create a new concept for the College’s future assessment efforts.

As a member of the faculty, the director of assessment understood the need to reframe the concept of assessment for Gerhard. Choosing to focus on that which mattered most to the faculty, student learning, the director brought an approach to a faculty advisory council on assessment (later to become the assessment sub-committee) that encouraged a formalized inquiry in support of student learning. As one member of the Religion Department recounted, very few would argue that they were not curious to know if students were really learning the most important aspects in a particular course (Faculty Member, Religion Department, personal communication, October 2, 2013). Nor did they object to understanding which activities generated greater student understanding of subject matter over others. The faculty advisory group approved the approach as it identified with the internal needs through articulation of expected benefits from the effort.
To begin the effort, faculty chose core concepts of their programs that they felt were most important for students to learn, and then evaluated those critical points of learning. Given that their intent was to support student learning, Gerhard faculty reasoned that they should focus their inquiries on work already underway in the classroom. This approach eliminated additional assignments and use of specific tests not part of the faculty curriculum. The method produced greater meaning for the faculty and addressed concerns regarding an unreasonable increase in faculty workload. Implementation became a faculty-driven decision, and laid the groundwork for a significant governance shift for Gerhard.

Often, institutional governance is described as that of a “top-down,” or “bottom-up” approach. Gerhard’s first approach was in response to accreditation requirements and was led by College administration. While the “top-down” initiative ultimately ended with poor results, the faculty felt that it would be difficult to enact a pure form of self-governance on an initiative that had historically been viewed as administrative rather than academic. As a result, complete reliance on a “bottom-up” strategy was not going to be a sustainable answer for Gerhard either.

To address faculty concerns, Gerhard adopted a governance structure that left much of the decision making to faculty, but embedded the call to action through Gerhard’s institutional leadership. Described in documentation about the institutional process for assessment, the Curriculum Committee for Gerhard was assigned responsibility for assessment efforts. All assessment proposals, policies, and decisions were to come through the academic governing body with the most authority over
academic matters. The shift in responsibility seated assessment as an activity within the curriculum rather than one sitting outside academic confines. The change in governance ensured that decisions about assessment rested with the faculty, and promoted an open forum conversation for vetting of assessment options. To create capacity within the Curriculum Committee for additional responsibilities, an assessment sub-committee (formerly the assessment advisory council) was formed and included members of the larger Curriculum Committee as well as other faculty members from the Institution. As the design of assessment efforts took shape, the Curriculum Committee brought its recommendations to institutional leadership and requested implementation across all Gerhard departments and programs. Interviews revealed a common belief that assessment efforts would not have been successful or as internally meaningful to the College without the revised structure.

Engaging both faculty and institutional leadership in such a manner was introduced initially for Gerhard’s assessment efforts, but, at the time of the research, was no longer limited to decisions surrounding assessment. The director of assessment indicated that many of the institution-wide recommendations on a variety of initiatives now come from the committee structure of Gerhard. Recommendations are then vetted and initiated for the College by administration.

Institutional Context - Program and Departmental Level Assessment Development

**Governance and communication of process.** With governance structures in place, Gerhard began to engage faculty in a process to formalize departmental and programmatic inquiries in support of student learning. It was determined through the
committee structure that each program needed to identify learning goals that students should reach by the end of their academic career. Working in conjunction with the Provost of the College, the Curriculum Committee requested that all faculty members within the respective programs and departments convene and collectively develop program and departmental intended learning goals.

During the first two years of departmental level assessment implementation, historical documentation included three formal communications from the provost of the College. In each of these communications, the provost noted in the opening statements that the activities outlined in the communications were made “in consultation with the assessment sub-committee of the faculty Curriculum Committee,” or “on the recommendation of the Curriculum Committee.” These memorandums provided timelines and guidelines for completing important milestones of the assessment effort. Milestones included dates by which faculty should:

- develop intended learning goals;
- identify the intended learning goals that will be the focus of assessment in the first year for the program;
- attend assessment professional development opportunities, identified as helpful by the faculty, sponsored by the director of assessment and the assessment sub-committee; and
- submit a department or program annual report indicating what was learned through the process and what implications the results may have for the department or program.
Important to the process was clearly communicating rationale for the endeavor as a method to strengthen teaching and learning. In addition to the call to action communicated through the Provost’s office, the assessment sub-committee also engaged with departmental faculty to provide direct guidance as needed. Communication included guidelines for developing learning goals, invitations to learning goal development clinics, and reminders that encouraged faculty to explore challenges or “puzzles they wish to solve with the assessment effort.”

The director of assessment and assessment sub-committee sponsored eight assessment clinics over a two-month period and prepared Q&A documentation for faculty. Throughout the clinics and other communications, the director of assessment and assessment sub-committee reinforced the concept that these efforts were not meant to be an assignment completed for someone else. Rather, assessment efforts were to be developed in a manner that created meaning and understanding for the program or department.

**Process implementation.** Gerhard managed a 100% on-time completion rate by all departments and programs in the development of intended learning. Encouraged by the high participation and completion rate, the Curriculum Committee asked that institutional leadership request departments and programs to begin data collection for evaluating intended learning goals. To encourage thoroughness and create a manageable task, the Curriculum Committee stated that only one learning goal should be analyzed by a program or department at any given time. Programs and departments were given one
year to collect and analyze samples of student work in order to analyze and report on student progress in meeting the programs’ stated goals.

According to Gerhard’s latest self-study, the first iteration of data collection and reporting garnered 90% completion, followed by 75% completion in the second iteration. Noticing the decline in completion rates and understanding that the annual requirement may yield less comprehensive understanding and usefulness for faculty, Gerhard created a four-year assessment cycle. The four-year cycle ensured that assessment efforts remain continuous, but that faculty engaged in only one form of student learning assessment in any given year.

Outlined in the four-year assessment cycle were yearly activities for program and department level assessment, including a year devoted to majors, and then concentrations along with other programs in the second year. The third year allowed for reflection on programmatic assessment for majors, concentrations, and other programs. It was expected that faculty would present action plans and projects driven by assessment data by the end of the third year. Gerhard dedicated the fourth year of its assessment cycle to the assessment of general education with no official assessment activities taking place for programs, concentrations and other programs. Many program faculty shared responsibility in the assessment of general education. A year dedicated to only general education ensured that faculty members did not attempt to assess for their program and for general education at the same time. While no official assessment activity occurred for majors and concentrations in the fourth year, faculty members were to follow through on their recommendations and actions generated from the initial inquiry.
In accordance with the four-year assessment cycle, Gerhard began its second inquiry in support of student learning at the program and department level assessment in the academic year 2012-2013. Reflecting consistency of process, the Provost’s call for assessment was again “upon the recommendation of the curriculum Committee.”

Consistent with the 2008-2009 effort, the Provost requested in the memo that,

Departments and programs should gather and reflect on evidence in relation to one of the intended learning [goals] for their major(s) during the 2012-13 academic year, and prepare an Action Report that describes both the continuities and the changes they plan to make in response to the evidence.

**Resources and incentives in support of assessment efforts.** The appointment of a director of assessment created capacity for Gerhard to seek out and participate in assessment related projects over the years. As a result, the College has engaged in funded initiatives that have added to its own learning of best practices in teaching and learning. Funding from these sources enabled Gerhard to acquire an array of resources for use at the institutional level as well as for faculty at the department and program levels. The consistent stream of resources and public recognition of assessment activities have helped create a positive association with assessment for the Institution. Small, internally funded grant amounts were also made available directly to faculty. Use of these grants to build program assessment efforts often required additional participation, presentations, and analysis. Due to the additional assessment workload associated with accepting the grant monies, faculty have moderately, but not extensively participated in the opportunities.

**Changes to institutional vision and promotion and tenure practices.** In the spring of 2011, the faculty at Gerhard chose to revise the criteria and procedure for tenure and promotion to include evidence of their “contributions to student learning and
development,” rather than the previous requirement for evidence of “effective teaching.”

Marking a substantial change for faculty performance evaluation, the faculty’s decision specifically targets one of the most important attributes to the professoriate, tenure. Finally, to align the institution and recognize the value created for Gerhard, the 2011 strategic plan opens with a newly crafted value statement identifying that “systematic measurement and evaluation of all its programs results in an institutional culture of continuous improvement.”

**Challenges associated with assessment at Gerhard.** As disclosed in the College’s latest self-study, an on-going area for improvement was that not all programs have demonstrated clear use of gathered data. Further, some programs remained uncertain about how to conduct meaningful assessment for their program, and worried about increased workload. An understanding of some of the challenges came through an opportunity to observe meetings between the director of assessment, department chairs, and a faculty member from a foreign language department and the complex interdisciplinary studies division. As the chairs and faculty conversed with the director of assessment, there was reoccurring struggle to think about assessment as more than an administrative assignment, and consider it a valuable tool for continuous improvement of teaching and learning. The director of assessment consistently encouraged department chairs and faculty to consider what is most important to the program, not for the office of assessment. In doing so, conversations for these programs became more exploratory and shifted faculty thinking to become more purposeful and tailored to specific program need. These conversations highlighted some of Gerhard’s ongoing challenges of reframing
assessment of student learning to enable faculty to align activity with program and departmental values. All those interviewed credited the director of assessment’s abilities to shift the focus of assessment, and have both the knowledge and care to engage individuals in a meaningful inquiry in support student learning.

**Program Assessment and Organizational Culture**

To understand the internal view of organizational culture change, the visit to Gerhard involved interviews with members of administration and staff, and 12% of all tenured faculty. Included in the interviews were the provost, program directors and faculty from the areas of religion, history, international studies, interdisciplinary studies, math, a foreign language, and economics, as well as administrative staff in institutional research. Department and program faculty interviewed were chosen both for their long-tenure with Gerhard and for their ability to speak to organizational culture both prior to and after the assessment implementation. These individuals were identified by the director of assessment as those having the greatest knowledge of the efforts, and the ability to speak on behalf of their departments.

During these interviews, time was taken to recount the activities that proved most meaningful in the development of program and departmental level assessment. Further discussion involved analysis of what, if any, change in attitudes, values, behaviors and practices for faculty occurred during the development of their assessment effort. Interview questions also explored faculty sentiments on how the program’s organizational culture may have changed or been affected by the assessment initiative. Opportunities were available to meet with many programs and helped to inform the
institutional context for program assessment. While personnel from more than two
programs were interviewed, the Religion and History Departments were chosen as the
focus of the study based on in-depth discussions with three faculty members of the
Religion Department, and two faculty members of the History Department (nearly 20%
of each department).

**The Religion Department at Gerhard**

**Overview and assessment planning and process.** In describing the assessment
efforts of the Religion Department, faculty began by sharing a specific context regarding
the constituents that influence the program. One member of the religion faculty who had
also served on the assessment sub-committee explained that a special tension exists
between the religious affiliation of the College and the non-denominational liberal arts
academic study of religion. To describe the conundrum, the faculty member stated:

> There’s a tension which I regard as a very fruitful and positive tension, between
certain conceptions of the liberal arts and certain conceptions of a church-related
identity. There are people who think that the tension ought to be just resolved on
the side of nondenominational liberal arts study or people who think it really
ought to be resolved on the side of fidelity to creed. So the Religion Department
has always kind of kept its cards close to its vest because we know that we have
constituencies with preconceptions of teaching and learning. (Faculty Member,
Religion Department, personal communication, October 3, 2013)

Though the tension was regarded as positive within the department, faculty had
always carefully measured communication on how such a delicate balance is managed in
the classroom. Faculty admitted they “have not historically always been completely
forthright about the way each as a scholar and teacher manages this” (Faculty Member,
Religion Department, personal communication, October 3, 2013). As a result, the
department historically concerned itself with what to teach in religion courses in order to satisfy all constituents, rather than defining the expected learning goals for students.

The Curriculum Committee’s decision for all departments and programs to make public their intended learning goals for students meant that the Religion Department would need to confront one of its most intricate department issues head on: public transparency. The conversation within the department went well beyond the traditional complexity associated with considering what exactly students should learn by the time they graduate. According to one of the faculty interviewed, the effort to identify and publicly state what the Religion Department aims to accomplish and why, “engendered lots and lots of conversation where we found a public voice for explaining what our work is in ways that are intelligible to a variety of constituencies” (Faculty Member, Religion Department, personal communication, October 3, 2013).

In concert with the process identified for developing program/department level assessment plans, the Religion Department defined intended learning goals much like other departments across the campus. Faculty found the ability to define goals for the program, as well as to decide the sorts of evidence needed to assess student progress, was a welcome and meaningful change from the demands associated with the first attempt of assessment. The director of assessment was acknowledged by faculty from the Religion Department as playing an instrumental role in the process. Faculty indicated the director’s support helped the faculty see ways to work through the complexity of the department’s environment to focus on what truly mattered to the faculty, what students were learning.
Assessment process implementation and use. In its first cycle of gathering evidence to assess student mastery of a specific learning goal, essays written by seniors in the major were chosen for review. The analysis of these essays revealed the complexity involved in creating and assessing intended learning goals. Faculty found it was easy to create a goal that is difficult to investigate. As a result, establishing learning goals was an iterative process that required defining and redefining learning goals to produce maximum clarity.

A second finding from the analysis of essays was the existence of consistent patterns of strengths and weaknesses in student writing when essays were measured against the established learning goal for written communication. One professor remarked during the interview that seeing the strengths and challenges of student writing in a purely objective fashion “really drove [him] back to brass tacks about how to coach young writers in the academic study of religion and [I] think many of my colleagues had the same experience” (Faculty Member, Religion Department, personal communication, October 3, 2013).

Stated during the interview was that “we’ve had a lot of conversation on the kind of vocabulary you would use for writing instruction, the kind of assignments you would offer, [and] the kind of feedback you would offer” (Faculty Member, Religion Department, personal communication, October 3, 2013). The professor commented on a particular moment where advice was sought from the writing director at the College. Upon review of the verbs used to describe the assignments for students, the writing director asked if the faculty member thought students understood what it meant to
“critique, analyze, or make an exposition of an essay prompt, and do they know what the
easy prompt is” (Faculty Member, Religion Department, personal communication,
October 3, 2013)? The faculty member regarded this as particularly insightful, replying
to the writing director, “I have no idea, but I suspect that my students don’t know what
any of the verbs of instruction in the essay prompt mean” (Faculty Member, Religion
Department, personal communication, October 3, 2013). The faculty member also
commented that the entire exercise only occurred as a result of assessment efforts, and
the findings “taught him to think about crafting an assignment with the whole idea that
the purpose . . . would actually be transparent to students from the beginning” (Faculty
Member, Religion Department, personal communication, October 3, 2013). The
combined assessment results fostered a healthy debate concerning programmatic change
and course sequencing to assist in writing improvement.

As the Religion Department also fulfills a large role in Gerhard’s general
education curriculum, some of the more aggressive approaches such as curriculum
change and course sequencing to address identified learning gaps proved difficult to
implement. Changes to curriculum must align with both the intended learning goals for
the department and general education, making consensus a challenge.

Despite the difficulties associated with more aggressive curricular change, the
conversation around the pedagogy of writing for the academic study of religion has
remained highly collaborative. Concerted effort was put forth by all members of the
department to adjust the teaching of writing to achieve the level of learning and mastery
desired for students majoring in religion. Further, and more recently, deeper
conversations have begun about both overall teaching and learning strategy for the program, and its organization of coursework to raise the level of student scholarship to attain expected mastery stated learning goals.

**Elements of organizational culture change associated with assessment efforts for the Religion Department.** In looking back over the processes the Religion Department engaged in, both subtle and substantive changes to the program’s culture were noted. Substantively, there was a shift towards operating as a department committed to transparency. Given the historical context of the study of religion at Gerhard, the change can be seen in both practice and behavior for the department.

More subtly, the level of thinking and analysis given to teaching and learning has resulted in curricular conversations not had within the department prior to the inception of departmental level assessment. Assessment efforts created introspection about teaching methods yielding shifts in teaching and learning practices.

During the course of the interview process, faculty communicated that the Religion Department was currently engaged in a comprehensive self-examination of curriculum in accordance with the seven-year academic program review process. They commented that the initial efforts of departmental level assessment have provided an informed foundation to help them consider change. Faculty also commented that assessment efforts have resulted in further consideration of the department’s intended learning goals to, “as a department, change them to reflect an understanding of the department’s mission, and how that relates to the general education requirements of the
College, and to the College identity as a whole” (Faculty Member, Religion Department, personal communication, October 2, 2013).

Complementing how the development and implementation of assessment has driven conversation around curriculum fit was a change in expectations of faculty at Gerhard. Long-term faculty members acknowledged that new faculty members must now possess skills in teaching and learning as well as the knowledge traditionally expected within the discipline. One faculty member specifically commented that as a younger faculty in the 1980s, the expectation of the professoriate at Gerhard was proficiency in the area of study. Speaking to the Religion Department, Gerhard, and the academy at large, the faculty member recounted that:

The normal self-understanding of the professoriate was that we knew our field. We were the experts in our field. Therefore, we knew what it was to teach and we knew what it was to examine whether students had learned it. And, if other people couldn’t understand it, that’s because a little bit of it was ineffable and going into mysterious human truths. And, it couldn’t be cheapened by being rendered empirical. (Faculty Member, Religion Department, personal communication, October 3, 2013)

With the advent of assessment at Gerhard, the overall expectation of what it means to be a faculty member in the Religion Department changed. Expertise alone was no longer sufficient; it became incumbent on faculty to be gifted both as an expert in the field, and as one adept in teaching and learning practices known to be effective for student learning. Additionally, a faculty member’s course and content could no longer stand in isolation. Members of the department collectively played an active role in both understanding and formulating each course’s purpose and fit within program as well institutional curriculum.
Faculty within the Religion Department also discussed the importance of producing both a plan and evidence of student learning as an indicator of good performance. Faculty felt compelled to openly convey purpose and goals, and provide evidence of how well students manage to achieve these goals. Accountability, therefore, resonated as a value among all individuals associated within the department in both an altruistic and survivalist fashion. All faculty interviewed within the department agreed there was an understanding and desire to convey the results to outside constituents. Moreover, it was stated that the external community has a “right to know,” given the tremendous amount of investment made in higher education.

Pragmatically however, it was noted by the faculty that the era of outcomes based accountability is not leaving the academy any time soon. Faculty acknowledged that they feel as though they sit at a crossroads within higher education to count, or be counted. The general fear, distaste or resentment of having outcomes imposed on the department, and by extension the College, obligates faculty to take the work of assessment of student learning seriously. One professor summed up what had been collectively stated:

So, there are congressional opponents [and] naysayers about higher education. They want to diminish funding. They want to diminish credibility. They want to hamstring the professoriate. And, assessment is one of the ways they can do that because they will keep saying, “Here’s the measure we want you to live up to. Prove to me that your graduates are more job-ready. Prove to me that they’re better off than they would be with a different degree.” So, if we don’t do our own assessment we will be compelled to do somebody else’s assessment and the assessment questions that our enemies will give us will not be the ones that demonstrate the value of what we’re doing. So if we believe in the value of what we’re doing we have to identify the questions that reveal and celebrate the excellence of what we’re doing. (Faculty Member, Religion Department, personal communication, October 3, 2013)
While the Religion Department has had many changes associated with its assessment efforts, faculty offered personal reflection on how embedded the changes to its organizational culture are. There was unquestionable agreement among program faculty that more rigorous and formalized assessment has brought about positive changes. Acknowledged were changes in colleague conversation and intradepartmental thinking relative to curricular change. Additionally, there have been prominent changes in expectations for faculty surrounding teaching and learning. Faculty members believe that the department is stronger and better for having been serious in its efforts.

However, drawing upon concepts often discussed within the discipline of religion, consideration was given to the concept of the human predisposition to be self-serving, and the desire to do what is simply more pleasurable. Faculty acknowledged that rigorous academic assessment was not enjoyable, but casual conversation about how classes are going with no real needed action to ensue, is! Faculty reasoned it would be natural, without solid guidance or goals, to revert to that which is more enjoyable, easier and self-congratulating (Faculty Member, Religion Department, personal communication, October 3, 2013). As a result, faculty felt that if it were not for the institutional governance structure, specifically regarding the alignment of goals, promotion and requirement of assessment between the Curriculum Committee and Institutional administration, the likelihood of continuance at the level it exists today is low (Faculty Member, Religion Department, personal communication, October 3, 2013).
The History Department at Gerhard

**Overview and assessment planning and process.** The History Department is supported by 15 full-time faculty, two of whom are also associated with areas of foreign study. The History Department provides a major in the field of study, special programs within the major that focus on social studies, foreign language integration, and off-campus learning. Additionally, the History Department serves in the fulfillment of general education requirements. Faculty members (both of whom also served on the Curriculum Committee) vocalized both their successes and challenges in developing and implementing assessment efforts and carefully considered whether the effort had influenced the department’s organizational culture. The faculty members’ account of their assessment efforts began just prior to the introduction of Gerhard’s second assessment attempt. Faculty within the department felt jaded after the first endeavor, and resistance was encountered during the second attempt. The requirement of assessment felt more like a lack of trust and enforced burdensome administrative work (Faculty Member, History Department, personal communication, October 2, 2013). A long-standing member of the History Department commented that assessment, first seemed to be kind of an external thing that was imposed upon us.” Another faculty member echoed these sentiments, remarking that it “was an imposition on our time [and] couldn’t they trust they hired good people that . . . students would come out with good skills at the end of it all. (Faculty Member, History Department, personal communication, October 2, 2013)

However, department faculty agreed that the director of assessment’s continued emphasis on assessment as an inquiry in support of student learning helped to create guarded acceptance. Further, the director’s consistent encouragement that the effort be
crafted with learning goals most important to the department helped faculty begin to think critically about what exactly the History Department was trying to accomplish.

One member of the faculty specifically commented that development of intended learning goals was particularly meaningful and created a “sense of ownership of assessment” in developing and implementing their assessment efforts (Faculty Member, History Department, personal communication, October 2, 2013). Further, the department focused on utilizing student work already assigned as part of the curriculum for evaluation against the desired learning goals. Of particular importance to one faculty member was the departmental activity to develop intended learning goals, as it was viewed as an “opportunity to construct goals based on our own values around learning” (Faculty Member, History Department, personal communication, October 2, 2013).

Collectively, the department identified historiography as a critical competency to assess within the history majors. As a result, learning goals were established to assess student learning and mastery in writing about history. Faculty objectively evaluated students’ abilities and weaknesses in research methodology and historiography. Evidence collected at the beginning of the senior seminar showed a lack of preparedness for upper level research classes. Further, student work collected at the end of the research seminar class indicated that progress in research was not at the level desired.

**Assessment process implementation and use.** Commenting on the process of assessment, faculty members indicated that the road to engage systematically in assessment required new learning on grading assignments compared to evaluating students on a learning goal. Use of student work to evaluate a specific learning goal
generated an ongoing need for faculty to learn to differentiate the practice of providing a grade for an overall assignment from evaluating one particular learning goal within an assignment. One faculty member commented that newer faculty in the department seemed to have a better understanding of rubric use and were helpful in the education process (Faculty Member, History Department, personal communication, October 2, 2013).

Beyond the more complex challenge associated with grading, simple operational challenges existed for the History Department. As a larger department that had many faculty who have responsibilities to interdisciplinary majors and general education, coordinating the effort to evaluate one particular learning goal was difficult. Instances had occurred where faculty graded assignments, but forgot to analyze assignments against the chosen learning goal (Faculty Member, History Department, personal communication, October 2, 2013). Moreover, timely data collection and overall compilation of results had also been challenging. To assist in their efforts, the History Department created its own assessment sub-committee. At the time of this study, the department’s assessment sub-committee provided a helpful level of governance to ensure continuity and systematic collection, reporting and interdepartmental discussion of student learning progress (Faculty Member, History Department, personal communication, October 2, 2013)

Because the assessment efforts revealed student weakness in two critical areas of learning for the program, the History Department faculty engaged in two substantive activities to address the issues. In reviewing assessment data collected from senior
research seminars, conversations ensued among faculty that brought about a change to curriculum sequencing, as well as development and integration of a new introductory research methods seminar. At the time of the research, faculty members were encouraged by the results now seen in upper division research seminar courses. Faculty noted greater degrees of sophistication in research methods and historiography than had been exhibited in previous cohorts (Faculty Member, History Department, personal communication, October 2, 2013).

Faculty indicated that the process of assessment has led to greater focus of curriculum sequencing and greater understanding of how all courses within the major fit together. It was widely recognized that the data collected could be used to improve individual teaching and learning. As a new iteration of assessment data was just released, faculty presented it as an opportunity to review and encourage a deeper conversation on what actions should be taken relative to curriculum design (Faculty Member, History Department, personal communication, October 2, 2013).

**Elements of organizational culture change associated with assessment efforts for the History Department.** During interviews, faculty commented on several subtle, but collectively substantive changes to behavior, values, conversation, practices, and structure within the department. The History Department attributed these changes to the effort to implement a meaningful method to evaluate how well students are achieving the intended learning goals.

Intradepartmental conversations helped faculty identify those elements most critical for students to master. Further, the development of methods to evaluate student
progress was a fundamental shift for the department. Greater value became associated with collective understanding of curriculum fit, and recognition of the fact that without the effort, history curriculum could “drift” in cogency (Faculty Member, History Department, personal communication, October 2, 2013). The efforts associated with program level assessment created a requirement to focus consciously and consistently on the curriculum content in supporting students to reach stated learning goals. As one faculty member indicated, “[w]e are much more self-conscious about what we are trying to do” (Faculty Member, History Department, personal communication, October 2, 2013).

The increased attention and conversation around curriculum fit has, for example, led to greater understanding of the challenges specific to students majoring in history. Faculty acknowledged that it is rare for a student to enter Gerhard as a history major. In many cases, students entered Gerhard in another major, and changed their major to history in their junior year (Faculty Member, History Department, personal communication, October 2, 2013). The high number of transfers created two realities. First, transfer students lacked critical curriculum elements required for history majors. Second, only a certain amount of curriculum change and sequencing within the department to improve student learning can occur. Acknowledging challenges associated with high transfer-in rates, faculty began adjusting teaching and learning practices. Thoughtful consideration was given to defining junior year learning expectations that are realistic and yet challenging. The result was understanding that learning occurring in the junior year must consider a certain amount of “catch up” for students transferring into the
major (Faculty Member, History Department, personal communication, October 2, 2013). Further, careful attention was then given to setting a proper foundation in the junior year for expectations in the senior year. Faculty have been able to identify the rigor of coursework needed in the senior year, that builds on foundational learning in the junior year, permitting seniors an improved opportunity to meet intended learning objectives.

The History Department faculty also emphasized the value of assessment efforts relative to demonstrating evidence of progress in student learning to external constituencies. Faculty members within the History Department seemed to have a clear understanding that the external community has a “right to know.” Moreover, faculty developed an acceptance of their responsibility to provide such data. As one faculty member frankly stated,

[I]n this political environment we don’t have the right to say nobody has the right to question us: we don’t. I mean, we are going to make ourselves irrelevant if we act that way. (Faculty Member, History Department, personal communication, October 2, 2013)

The History Department also changed its governance structure through the establishment of an assessment sub-committee with helping to improve organization, completion, and compilation of data associated with assessment. Program faculty chose to make the assessment sub-committee permanent within the department, and was in its fifth year of operation at the time of the research. (Faculty Member, History Department, personal communication, October 2, 2013).

The department acknowledged that the sentiment associated with assessment had shifted from resentment and mistrust to a value added activity. However, faculty members would not go so far as to say that sustainability of formal assessment efforts
would exist without some form of authoritative requirement. Faculty acknowledged that were it not for the requirement to formalize the findings from assessment efforts, some of the thinking and conversation around student learning would linger, but the physical “crunching of data” would not (Faculty Member, History Department, personal communication, October 2, 2013).

**Elements Indicative of Programmatic Organizational Culture Change**

While Gerhard provided an overarching institutional framework for assessment of student learning, both the Religion and History Departments customized their assessment plans and practices. The following summarizes findings that serve as promoters and/or indicators of organizational culture change occurring at the program level associated with assessment initiatives.

**Common goals with department-specific approaches.** Both departments worked from an institutional-wide objective to determine intended learning goals that were meaningful. Both departments welcomed the ability to control and customize goals and activities to their specific needs. Additionally, the flexibility afforded to develop assessment plans that answered questions the faculty themselves had about student learning helped to nullify negative perceptions of assessment associated with the first attempt. The assignment of assessment ownership to faculty facilitated departmental buy-in. Finally, faculty in both departments may have become more receptive to assessment requirements in the second iteration because they were able to use existing assignments to assess goal achievement. Use of current student work emphasized both the value of the
assignments already in place for each program, and assisted in mitigating additional workload.

**Sense of autonomy.** In both departments, departmental control of developing intended learning goals helped encourage goals that resonated as most valuable with department faculty and reinforced faculty ownership over assessment. By identifying a broad goal at an institutional level, each department was able to develop its assessment programs independently of other departments and programs, resonating with the need for academic autonomy.

**Shift in the value of assessment.** The first attempt of assessment at Gerhard left faculty questioning the rationale for assessment. As each department looked to identify intended learning goals that enabled analysis to determine whether students were learning, the rationale for assessment became clear and unhinged from accreditation requirements. Since the rationale for assessment addressed faculty curiosity on student progress, the value of assessment efforts changed.

While emphasis was placed on the internal values of student learning assessment, both departments also associated the importance of assessment relative to external constituents. In both departments, themes arose regarding accountability. First was that the public had a right to know. The second more global theme was that if not completed and communicated, value associated with higher education would diminish, or external assessment metrics would be imposed that do not demonstrate the value clearly.

**Change in departmental conversation.** The process of developing intended learning goals necessitated department-wide discussion to define both goals and methods
and to understand whether students are achieving those goals and why. With student work consistently tying back to stated learning goals, intradepartmental conversation for both departments was more frequent and utilized a common vocabulary. Further, conversations centered on teaching and learning practices, as well as curriculum fit to enable achievement of learning goals instead of focusing solely on program content.

**Focus on teaching and learning practices.** Both departments utilized assessment data to improved methods of teaching and student learning. Within the Religion Department, assessment data provided insight into weaknesses of student writing in the academic study of religion. Use of data brought about changes to the vocabulary used in constructing assignments, enabling students to clearly understand the expectations and improve writing knowledge and skills. Changes identified in the History Department dealt with earlier introduction to research methods as well as greater thought given to the rigor of coursework necessary to achieve expected learning goals in the junior year in order to meet overall program learning goals by the senior year.

**Shift in faculty expectations.** Assessment efforts alerted faculty that expectations in their responsibilities have evolved. Faculty realized it is no longer adequate to have expertise in a field of study, but that they also must demonstrate gathering and use of systematic evidence about student learning as part of what it means to be an effective teacher. Similarities also existed relative to faculty expectations and skills around assessment. In both departments studied, there was indication of longer-term faculty learning from younger colleagues. As newer faculty appeared more comfortable with
assessment and use of data to measure student-learning progress, they provided a valuable resource to experienced faculty in developing and carrying out assessment plans.

**The concept of sustainability.** In conversations regarding sustainability of assessment efforts, both departments indicated that while assessment of student learning has brought about positive and meaningful change, it can, at times, be complex, tedious, and unpleasant. As a result, both departments acknowledged that if there were no institutional requirement of formalized assessment, some practices would continue, but perhaps not in the same rigor as formalized assessment demands.

Other elements indicative of organizational culture change were also present, but with greater variance between the programs. These findings included:

**Philosophical meaning associated with the assessment process.** For the Religion Department, the establishment of intended learning goals represented a philosophical reversal. The necessity to disclose publicly intended learning goals, developed through the process of assessment, was a substantial shift in how the Religion Department traditionally communicated its intentions to its varying constituents. The History Department did not cite the development of intended learning goals as a substantial change in philosophy for the department, but indicated that it helped refocus their efforts and think more critically about what sort of learning should happen as a student progresses through the curriculum. The department began thinking about how the entire curriculum fits together to achieve stated learning goals, rather than what content should make up a history program.
**Departmental governance.** While assessment efforts for the History Department brought about a change in departmental governance structures, changes to governance structures were not noted within the Religion Department. Including an assessment committee in the History Department’s governance structure emphasized the changing value associated with assessment. Further, it demonstrated an attempt to embed assessment activities as part of normal departmental practice. It is interesting to note that such a committee was not found in any of the other programs interviewed or observed (economics, math, chemistry, foreign language and interdisciplinary studies). That the Religion Department did not feel the need to alter the governance structure within the department, but yet had similar results in organizational culture change, speaks to the long-held tradition of faculty governance and need for latitude on campuses.

**Use of assessment.** Both departments used assessment results to inform changes, but differed in the scope of their curriculum modification. The Religion Department has primarily focused on adjustment of teaching and learning practices by altering methods of instruction and by providing explanation of writing assignments for the academic study of religion. By contrast, the History Department added coursework to the curriculum to address learning gaps hindering student performance in their senior year.

**Institutional Influence on Department Assessment**

Surrounding the findings within the Religion and History Departments is a strong institutional framework for assessment of student learning. Both departments referenced the institutional influence on assessment practices frequently in their discussions on program assessment. Organizational culture changes described by the two departments
reflected the efforts of the Institution to deploy ownership of assessment to programs and departments. As a result, the following represents a thematic analysis of Gerhard’s influence on program level assessment.

**Reframing need and changing value.** The first approach to assessment was an administrative effort driven by institutional accreditation requirements. Formal analysis of student learning often represents a substantial shift in process for many institutions, and a “top-down” approach has often been initiated to advance efforts in assessment. Gerhard’s first attempt was no different, but not successful as external demands held little internal value for faculty. Gerhard redirected the need for assessment to focus academic need rather than institutional need. The College reframed assessment as a tool for deep inquiry in support of student learning. Further, Gerhard stipulated that assessment would be executed in a manner meaningful to faculty, sustainable in workload, and aligned with institutional mission. Having reframed the rationale for assessment, Gerhard faculty saw the potential benefits arising from the assessment of student learning. Instead of an imposed requirement, it became an effort and process to which faculty now associated real value.

Having reframed the need for assessment, Gerhard adjusted the management of assessment to communicate commitment to the new value set. The Curriculum Committee accepted responsibility for assessment, which was a role reversal from the first attempt. Use of the Curriculum Committee to both research and develop overall assessment strategy structurally placed ownership of assessment with the faculty, and embraced the long-held values of faculty-governance and academic autonomy.
Restructuring responsibility for assessment appears to have aided a shift in value associated with assessment. Assessment became something important and worthy of the Curriculum Committee’s time and attention, and by extension the College faculty.

Moreover, the governance structure established for assessment efforts has permeated institutional decision-making, and substantially altered the decision-making process for the Institution. The choice to make changes in governance structure building upon long-standing traditions of faculty-governance illustrates Gerhard’s understanding of how values most-deeply rooted can be leveraged to ignite other changes in organizational culture.

**Supporting the change in value – personnel and operational structure.** One of the most effective uses of human capital was the appointment of the director of assessment, and now additional staff to support faculty in their efforts. Creating the position and hiring the director from within faculty ranks structurally added a respected level of support, emphasized assessment as an academic function and demonstrated that the College intended to hold to its statements of engaging assessment in a completely different manner than the previous attempt.

Gerhard also supported the establishment of a permanent sub-committee for assessment within the Curriculum Committee to help clarify the role of assessment and seat responsibility for assessment with the faculty. Central to Gerhard’s success was that members of the sub-committee chose to serve as mentors for faculty new to evaluating student work against intended learning goals. Further, the assessment sub-committee
organized a series of clinics to educate faculty on methods of a formalized inquiry in support of student learning.

**Embedding values – changing practices.** The Curriculum Committee’s decision to request each department to invest time and resources into researching and developing intended learning goals helped facilitate conversations at the department level that had substantive meaning. To develop intended learning goals, the types of conversations faculty engaged in concerning curriculum shifted from agreeing upon the compilation of standalone courses, to one of deep consideration of curriculum fit and intentionality.

Further, the request for faculty driven development of intended learning goals emphasized both departmental and individual faculty values of coursework. The activity to develop intended learning goals ignited significant participation and involvement in the process. Faculty behavior shifted away from only considering the effectiveness of his or her individual course to evaluation of how his or her course collectively fit within the curriculum. Faculty within the programs studied acknowledged that they are more in tune with how the entirety of student work throughout the programs achieves the departments’ desired learning goals.

The establishment of the four-year assessment cycle within the newly created governance structure of the institution affirmed both its importance and sustained functionality. The four-year cycle was developed in response to both the feeling of an unsustainable increase in workload, and diminishing quality of assessment efforts. What could have been a point of derailment for program and departmental level assessment
became a process improvement point to ensure quality results, efficient use of resources, and sustainability of the effort.

Finally, the practices for evaluating faculty for promotion and tenure changed to include assessment efforts. As the decision was made by the Curriculum Committee and affirmed by the Institution, the change in practices serves as a strong example of how embedded the value of assessment has become at Gerhard.

To summarize, findings indicate that shifts in conversation, value, practices, and behavior within the academic environment have occurred resulting from the introduction of formalized assessment of student learning. While shifts in many elements often associated with organizational culture are apparent, the extent to which these shifts are fully embedded is less certain. Faculty indicated many of these changes identified relative to assessment practice might diminish without a strong institutional framework.
CHAPTER FIVE: ANALYSIS

Introduction

Throughout the three institutions and six programs studied, common themes and unique features have emerged, both in terms of the process of assessment development and in terms of the elements of culture change. The following analysis considers institutional influence, as well as the faculty’s lived experience in discussing how elements of organizational culture were influenced by the process of developing and implementing assessment of student learning. Further, general assertions concerning how the elements of organizational culture were affected by the programs’ development and implementation efforts are presented.

As the cross-analysis contends largely with the process of program assessment, process change initiative, and organizational culture, it is helpful to review how these terms were defined earlier in the research. Both the process of program assessment and the process change initiative associated with assessment of student learning are part of the analysis. Case studies have described the process of program assessment, which is simply what is done as part of the program’s assessment plan. Also described within the case studies are the events and activities that faculty engaged in to initiate the new process of formalized assessment. The efforts to initiate a new process constitute process change.

Organizational culture has been defined as a shared collection of learned behaviors, interactions, practices and values that guide normative behavior and the
accomplishment of work (Detert, Schroeder, & Mauriel, 2000; Rossman, Corbett, & Firestone, 1988; Schein, 1985).

**Frameworks of Analysis Employed for Cross Case Analysis**

Essential to the analysis are both frameworks that discuss process change and those that contextualize organizational culture change. The Lueddeke Adaptive-Generative Change Model (Luddeke, 1999) has been applied to identify critical process points. Developed specifically with an academic context in mind, Lueddeke’s model outlines process change beginning with analysis of need, moving through to development and implementation phases and concluding with evaluation efforts. Evaluation efforts in turn often identify new needs, reigniting the change process once more. Appendix A displays Lueddeke’s entire model for process change.

Within each process point, findings from the case studies demonstrated activities that helped the faculty make sense of the change process. In many cases, these activities included reframing the need for assessment of student learning in general. Additionally, activities associated with assessment were framed in ways that enabled process execution and progression along the development, implementation and evaluation cycle. Findings from the programs also indicated that certain process stages either shifted or reinforced an element or multiple elements of organizational culture.

The collective analysis of all programs presented in this chapter captures the activities that helped the faculty make meaning of process change, and the attributes that helped frame the process to promote continuation of the effort. Research associated with sensemaking allows for a cross-analysis of the activities that increased social cognition
and meaning for assessment (Kezar, Understanding and facilitating organizational change in the 21st century, 2001; Weick, Sutcliffe, & Obstfeld, 2005). Then, theories presented by Bolman and Deal (2008) regarding the political, structural, human resources, and symbolic frameworks used to frame or reframe the effort and promote process execution are applied.

As noted by Bolman and Deal (2008), organizational change often requires four dynamics within organizations; 1) consideration of organizational structure; 2) human resource needs; 3) the political environment relative to empowerment, authority and responsibility; and 4) efforts that symbolize the importance of change. Specifically, the authors identify essential strategies for each of these considerations. Structurally, communication, realignment and renegotiating formal patterns and policies are necessary. To address human elements within Bolman and Deal’s Human Resource Frame, it is critical that anxiety and uncertainty are overcome through training, participation and involvement, as well as through genuine moral support. Politically, the ability to disempower conflict and create an arena for productive conversation on change is essential. Further, decisions and other symbolic and actual activities can help individuals unseat the past and embrace change more willingly (Bolman & Deal, 2008).

Employing theories on sensemaking and Bolman and Deals’ concepts of reframing during each stage of process change helps to identify elements of organizational culture that either shifted or reinforced a cultural shift that occurred during an earlier stage of process change. Figure 1 illustrates how these three theories synthesize for the collective analysis of case findings.
In all programs studied, the initial reason for assessment of student learning was to comply with accreditation requirements. While accreditation may have been the initial catalyst for all programs, accreditor compliance was perceived as an external demand holding little internal value for the faculty, and fostered resistance to the effort. Rather than attempting to make compliance with external demands more valuable, faculty and administration engaged in a process to make the requirement for assessment internally meaningful. While nuances existed for all six programs within the sensemaking process, all program faculty identified assessment of student learning as an important academic function vs. an administrative function. Program faculty indicated the shift of responsibility was important in diminishing resistance to formalized assessment efforts.

Initiating the sensemaking process depended largely on where administrative support of assessment rested within the institutions. Each institution employed a different approach. At Gerhard, the efforts of the program faculty were a collective effort driven by the two most influential governing bodies, the Curriculum Committee and institutional
administration. The Curriculum Committee’s endorsement of assessment as both necessary and an academic responsibility compelled program faculty to engage in the development of formalized assessment. The program faculty at Edgington cited the dean of the School of Arts and Science (SAS) as instrumental in creating meaning beyond accreditation and credited the dean’s efforts in creating initial buy-in. The program faculty at Kipling were generally less resistant to the need for formalized assessment due to existing accreditation requirements. However, both the School of Education and the Sociology Program faculty identified the need for autonomy in designing program level assessment efforts.

The sensemaking process to shift the need for assessment of student learning to an academic need laid the groundwork for structural reframing of assessment. Within the programs studied, the act of placing assessment as an academic function structurally shifted responsibility away from administration. Further, to exist within the academic environment, autonomy in developing assessment plans at the program level was made consistent with the autonomy afforded to other academic activities.

The combined sensemaking process and structural reframing of assessment, all done with consideration to the long-standing values of academia, created a shift in the value of assessment of student learning. The need for assessment evolved to be viewed as supportive of the academic environment and student learning progress, and served as the platform for research, development and implementation of assessment initiatives. It appears that many of the perceived cultural conflicts identified in the literature diminish when creating an internal need for assessment is encouraged and supported. Figure 2
illustrates how, within process change, identifying the proper need for assessment shifted the value associated with assessment.

Figure 2

*Needs Analysis – Cross-Case Synthesis*

**Research and Development**

The process stage of research and development existed most notably for all programs in the development of intended learning goals. All program faculty cited increased intradepartmental conversation and debate about what each program expected students to learn. Collective dialogue and debate provided a forum for the faculty to discuss their values and beliefs on what students should have accomplished by graduation. For some programs, however, these conversations also involved substantial consideration of external constituents. For example, the Religion Department at Gerhard, as a department within a religiously affiliated, liberal arts institution, had to consider its own transparency of learning goals and how it could address both academic and religious affiliates. Both the School of Education at Kipling and the Chemistry Department at
Edgington were heavily influenced in their assessment conversations by accreditor standards on expected competencies.

The research and development component of process change served as a vehicle for continuing the process to make sense of assessment of student learning. Each program identified overarching expected learning goals through collective study and consensus. The faculty considered overall program alignment with internal faculty member values, institutional goals, and in some cases, external constituent expectations in student learning. Further, in researching what intended learning goals should be for a program, faculty members began to converse more deeply about the fit of the entire curriculum within the program, and its ability to meet expected learning goals.

The frameworks employed for process execution during the research and development phase relied mainly on the structural framework put in place to associate assessment with the academic environment. However, elements of the political frame as described by Bolman and Deal (2008) were also prevalent throughout the cases. Decision-making around the development of intended learning goals was consensus-based; thus, learning goals had to be negotiated among faculty members. In general, consensus-based decision-making employs the political frame as a primary activity that disempowers conflict (Bolman & Deal, 2008). It was expected that the need for the political frame would be less prevalent because of the presence of accreditation requirements for both the Chemistry Department at Edgington and the School of Education at Kipling. However, both programs’ faculty members cited instances where consensus-based decision-making either propelled advancement or resulted in continued
efforts to identify appropriate learning goals. For example, the acronym established by a faculty member from Edginton’s Chemistry Department created a consensus-reaching mechanism to move the process of identifying learning goals forward. Additionally, Kipling’s School of Education engaged in intense conversations about what learning should be expected in the area of professional teaching dispositions.

In addition to the political frame associated with consensus-based decision-making, elements of Bolman and Deals’ human resource frame existed regarding increased engagement. The effort to identify intended learning goals for a program or department required a high degree of collaboration within all six programs and by extension increased the level of faculty engagement with assessment of student learning. Faculty from all but one program acknowledged the shift in the level of engagement. As the exception, Edginton’s Chemistry Department felt that the effort created a formal arena for faculty members already engaged in assessment.

When both the sensemaking efforts and the structural, political, and human frames are used, shifts in certain elements organizational culture change are identified across the programs. First, engaging in the process to develop intended learning goals that addressed academic need and curiosity reinforced assessment as a value-added activity within the educational environment. Second, the research and development aspect of process change began to alter behavior regarding curricular conversation. Conversations shifted from considering what courses should be in the program of study to dialogues that discussed curriculum fit and intentionality to achieve expected learning goals. Third, building on the increased importance of curriculum fit, was the beginning of
a subtler shift in behaviors around curriculum ownership and the advent of shared practices around course development and approval. While courses were still associated as property of a particular professor, individual courses needed to demonstrate how they fit in achieving intended learning goals for the department or program. Figure 3 illustrates how meaning-making efforts and reframing for process execution within the research and development phase of change influenced cultural elements of values, behaviors, and practices.

Figure 3

*Research and Development – Cross Case Synthesis*
Strategy Formation and Development

Many of the themes in the research and development phase to design program intended learning goals were also present throughout the activities to design entire assessment plans. Beyond the development of overarching learning goals, decisions were necessary to define student work elements to be used in evaluating student learning progress. Further, methods to measure effectively how well a student was performing were needed. Each decision was made to create further usefulness and derive additional value from assessment. The faculty across all programs continued to make sense of the effort and attach meaning to each activity associated with assessment. Faculty members in all programs continued to develop the entirety of the assessment plan in consensus-fashion, ensuring that each item in the assessment plans resulted in collectively meaningful data.

Program faculty members in all programs chose to use existing student work to evaluate student learning directly, rather than creating separate assignments designed to specifically assess a particular learning goal. Programs with programmatic accreditation also used national exams relevant for their accreditor. Indirect methods of student survey data were also included, allowing for a holistic approach to assessing how well students met the programs’ learning expectations.

Instrumental to strategy formation and development appeared to be the presence of newer faculty. Senior faculty members described more junior faculty members as having a general knowledge of assessment and more receptive to the concept of measuring program effectiveness. Further, the less tenured faculty entered their
respective institutions and programs with a dual understanding of their role as both expert in their discipline and knowledgeable of teaching and learning practices. Collective decision-making, along with knowledge and willingness to engage in assessment development, may have given junior faculty members more of a voice in organizational decision-making than had existed previously.

As similarities exist between the research and development and the strategy formation and development stages, the frameworks employed for process execution are also similar. The collaborative development of assessment plans by program faculty members continued to embed structural changes associated with academic assessment efforts. As planning assessment of student learning progressed, faculty members assumed an ever-increasing role in leading the decision-making process to formulate assessment plans.

Politically, the arenas for negotiation and consensus continued and were reinforced, as several decisions were needed to complete a program assessment plan. Each decision made by faculty members further embedded the emerging behavior of elevated intradepartmental conversation on student learning. Further, open forum discussion reinforced emerging practices on curriculum and course development.

The continued level of faculty member engagement in the development effort reflects consideration of the human resource frame as defined by Bolman and Deal (2008). Throughout the strategy formation and development phase, opportunities for training and professional development helped to alleviate uncertainty over assessment efforts and reduced resistance and speculation over assessment.
The process stage of strategy formation and development reinforced the elements of organizational culture that began shifting within the research and development stage. Behaviors regarding the assessment of student learning continued to shift as conversations continued to center on curriculum fit and intentionality. Further, professional development provided by outside entities and internal mentors continued to reduce resistance to assessment and provide assurances that assessment held real value for the academic environment. The continuance of these activities helped root behavioral shifts begun during research and development.

Finally, practices associated with curriculum development and formalizing methods used to change curriculum going forward were further rooted as the entirety of the program assessment plan was formed. A noted shift in practices for programs without secondary accreditation was the inclusion of assessment results when considering curricular change. Exceptions were noted within both Kipling's School of Education and Edgington's Chemistry Department as programmatic accreditation had already embedded the practice of evidenced-based curricular change prior to formalized assessment efforts. Figure 4 illustrates how sensemaking and reframing within the strategy formation and development phase of change influenced cultural elements of values behaviors, practices, and conversation.
Resource Support

Resource support within the Lueddeke model sits prior to implementation efforts to ensure that resources are in place to execute everything that has been developed. However, within the programs studied, resource support for the process of developing and implementing assessment plans was an element woven throughout the process.

Resources included:

- changes to institutional and/or program structure by adding personnel to directly support program assessment efforts;
- development of assessment committee structures that met the need to support assessment as an academic function;
• peer mentorship for the faculty through administrative leadership, assessment committee structures and knowledgeable faculty members;

• professional development opportunities afforded through internal clinics and outside assessment consultants; and

• satisfaction of other financial resource needs that created a positive climate for faculty involvement.

Examples included group meetings that involved adjunct faculty, grants available, and employee welfare items associated with group engagement of assessment development (yes, food!).

While the above summarizes the types of resources employed, resource support varied by institution and program. Regardless of resources provided, however, all but Kipling’s Sociology Program indicated that the resources deployed played a substantial role for faculty in making meaning out of assessment of student learning. The Sociology Program, however, operated within the support structure of an associate provost dedicated to program assessment.

A specific example of resource support worth noting involves faculty education on grading versus assessment of student learning goals. Several programs cited a need for support and education on distinguishing between assigning a holistic grade and assessing student work on a particular learning expectation. While the faculty’s cognitive dissonance between the two was more prevalent in some programs and institutions than others, it was one point of the process where faculty continued to feel less certain. It is a subject on which further resource support may be necessary.
Resource support for faculty members developing assessment efforts effectively employed all frameworks to encourage execution of process. Symbolically, attaching resources to assessment activity elevated its importance for programs. Hiring staff, engaging outside consultants, and offering professional development, all served as symbols of the importance not only of formulating assessment, but also of validating faculty efforts.

Support structures were put in place to assist, guide, and embed program assessment efforts. In all cases, the institutional organizational charts were permanently altered to include assessment staff lines into varying levels of academic administration. In two of the three institutions studied (Kipling and Gerhard), the institutional organizational structural changes interfaced directly with program assessment efforts. Further, these structural changes made have been permanent.

Politically, the structural changes, including both staff and committee structures, were embedded as positions of collaborative authority. In all cases, assessment committees reported up through faculty led structures such as the Faculty Senate, Curriculum Committee, or academic administration. Engaging high profile committee structures legitimized the faculty's ownership, elevated the need for collaboration and created public dialogue on assessment.

Finally, the additional committee structures and personnel fulfilled many of the requirements reflected in the Human Resource framework. Additional personnel, faculty-led committees, faculty peer support, and training all reduced uncertainty, anxiety, and created avenues for greater involvement and engagement in the effort.
Resources dedicated to supporting programmatic assessment have influenced many of the elements of organizational culture change. As organizational structure is, in a sense, a practice in supporting organizational initiatives, the aforementioned structural changes influenced how, what, and to whom information on assessment is conveyed. Many programs often stated that support systems and resources helped reduce initial resistance to assessment efforts, essentially altering faculty attitude and behavior towards assessment. Finally, resources dedicated specifically to assessment effort reinforced the importance of assessment for program faculty at every process stage and validated their efforts.

Findings related to the influence resource support had on organizational culture change are significant. Deployment of resources in support of student learning assessment perhaps has been unknowingly under-emphasized in literature that discusses how to conduct assessment. Literature reviewed in preparation for this research focused on resources needed to execute assessment, but had not connected a cultural impact to providing resources to support faculty efforts in creating assessment plans. Figure 5 illustrates how sensemaking and reframing, with regard to resource support for change, influenced cultural elements of values, behaviors, attitudes, and practices within organizations studied.
Implementation and Dissemination

The first four elements of process change as defined by Lueddeke have presented shifts in elements of organizational culture. The latter two, implementation and dissemination, and evaluation appear to have served as reinforcement of shifts identified through the development process. Simply stated, once faculty made decisions and developed plans, faculty members carried out the plans. All programs studied used existing student work as the platform for measuring student progress. Faculty collected data, producing both a grade for the assignment and a score on a particular learning goal(s).
Focusing first on implementation and dissemination, most of the sensemaking of assessment was complete as faculty implemented assessment plans, with the exception of knowing what to do with the data once they were collected. In all instances, however, how to make sense of activities post data collection was established quickly using traditional governance channels within the programs. In four of the programs, the program director or department chair held responsibility for synthesizing data and preparing it for committee discussion. Kipling’s School of Education and Gerhard’s History Department utilized their assessment structures within the school/department to compile and synthesize data.

Analyzing the frameworks employed for process execution suggests that structures established, either prior to or during the assessment planning process, supported implementation. Existing faculty member governance structures were relied upon for compiling and disseminating the results to program faculty.

The effect of implementation and dissemination of assessment efforts on organizational culture was the reinforcement of practices established during the development phases. As no new knowledge was gained for faculty until assessment data could be evaluated, it is interesting to note that the actual act of assessment had negligible influence on elements of organizational culture. Figure 6 displays both a minor need for sensemaking and frameworks for implementation. Also demonstrated is that faculty member implementation and dissemination efforts served, from a cultural perspective, only to underscore practices established during planning and development stages.
Evaluation

In the programs studied, evaluation of collected data resulted in several changes to curriculum and/or curriculum delivery. Once compilation of data was completed, faculty members engaged in efforts to make sense of the data, and to discuss ways to improve areas where it was felt students should have had greater mastery. Across the programs studied, faculty considered how curriculum was delivered, and what activities ignited the learning process for students. Additionally, the programs engaged in follow-up conversations about curriculum fit and considered actions such as the addition of pre-requisites, advising students by creating curriculum pathways, and creating new courses to be taught earlier in the curriculum. Assessment data also revealed, in some cases, a need to clarify intended learning goals for the next cycle of assessment. As a noted potential best practice, Gerhard College carried its evaluation process forward to include analysis of program participation in collection and analysis. Noting a decrease in
participation, Gerhard’s Curriculum Committee refined the assessment cycle to promote both quality and sustainability of the effort.

Within the programs studied, the framework supporting the evaluation efforts involved traditional faculty governance structures to provide most of the evaluation efforts. Most programs relied on the program director or department chair to bring compiled and synthesized data to the program faculty for group discussion. The History Department at Gerhard and Kipling’s School of Education, however, utilized their internal assessment structures to compile assessment data and present the results to the faculty for deliberation.

While the structural frame was employed, more notable was use of the political and human resource frameworks. The presentation of objective data enabled faculty to discuss results impartially and define potential solutions to improve areas of weakness. Analysis of data, devoid of owner, reduced anxiety in those faculty feeling judged by assessment and having assessment data tied to personal performance. The anonymity created a forum for open discussion on actions the program could collectively take to improve student learning.

The faculty’s review of data and consideration of change during the phase of evaluation influenced elements of organizational culture regarding practices, behaviors, and values. Through evaluation, faculty completed the cycle of embedding practices associated with assessment. Faculty were able to evaluate data due to the practices engaged in to identify intended learning goals, determine student work most appropriate for evaluation, and successfully measure student progress. Prior to evaluation, the
importance of curriculum fit and sequencing had been noted through changing conversation. Evaluation efforts and resulting changes directly linked conversation and practice. The types of changes that were made affirmed the faculty decisions made earlier in the process to include assessment evidence when considering curriculum change.

Finally, collecting actionable data that could be applied in a meaningful way to improve student learning, validated faculty efforts and further reinforced value associated with assessment. Figure 7 illustrates how sensemaking and reframing during the evaluation phase of process change influenced cultural elements of values, behaviors and practices.

Figure 7

*Evaluation - Cross Case Synthesis*

- **Evaluation**

  - **Sensemaking:** Faculty engaged in efforts to make sense of the data, and discussed ways to improve areas of weakness in student learning.

  - **Structural Frame:** Traditional governance and/or newly established program assessment structures were employed to synthesize data and bring faculty together to discuss results.

  - **Political Frame:** Data anonymity enabled faculty to publicly vet the data and build consensus around what actions to take.

  - **HR Frame:** Data anonymity reduced anxiety and tension associated with assessment used for performance evaluation.

  - **Practices:** Ability to evaluate data affirmed the practices engaged in to develop assessment plans.

  - **Behaviors:** Evaluation efforts and resulting changes directly linked conversation on curriculum fit to practice.

  - **Values:** Acting on results to improve student learning validated faculty efforts and further reinforced value associated with assessment.
**Sustainability**

The Lueddeke model is displayed commonly as a circular process that renews itself upon evaluation efforts. The process by which faculty assess student progress in meeting expected learning goals has also been designed as a recursive function. One cycle of assessment leads to changes that in turn will be assessed for effectiveness during the following cycle. While established to be sustainable, the complexity of assessment of student learning initiatives resulted in an increased workload for many faculty members. Consequently, competing forces exist when sustainability of assessment efforts is considered. By design, it is a sustainable process. Operationally, however, sustaining the rigor necessary to conduct meaningful assessment is challenging. In each program studied, the faculty responded to the question of sustainability indicating that formalized assessment efforts would diminish if they were no longer a requirement. Among the reasons given were time intensity in gathering data, analyzing results, and its relevance for certain courses. Many of the faculty indicated that they would hope the conversations and practices that have centered curriculum on student learning would remain, but the technical analysis may fade if not made an institutional priority.

**Noted Distinctions in Institutional Influence**

It is possible to make several general assertions from the programs studied regarding the process of assessment development and the resulting impact on the elements of organizational culture. Each case analysis contains a summary of the institutional influence on program assessment. From those summaries, several
distinctions arise when considering institutional influence on program assessment of student learning efforts.

Gerhard exhibited a centralized support system with the institution’s Curriculum Committee and assessment staff supporting both general education and program level assessment. By stark contrast, Edgington’s support structure for program level assessment was decentralized to the Schools within the University. Falling more in the middle was Kipling’s approach of decentralizing most of the effort of program level assessment to the schools, but in a coordinated fashion through an institutional office for program assessment.

The differences in support structures did not seem to impede the success of the programs studied. The program faculty and assessment staff at Edgington and Kipling, however, commented that challenges remain in expanding successful program level assessment to other departments. Faculty at Gerhard did not express the same challenges of expansion within more traditional programs of study, but reflected on the complexity of assessment for the interdisciplinary studies division. Further, Gerhard was the only institution to emphasize assessment in its stated values and embed evidence of assessment of student learning within the promotion and tenure process. Among the three institutions studied, Gerhard exhibited greater institution-wide shifts in practices, behaviors and values than Kipling or Edgington.

There are interesting distinctions among the three institutions regarding the importance of assessment for the programs within each institution. Both programs at Gerhard mentioned the importance of assessment in demonstrating accountability and
providing proof of learning to the external community. At Edgington, both programs commented on the importance of requesting resource allocation based on the strength of assessment plans and results. Finally, Kipling exhibited neither of these tendencies. Program faculty and staff at Kipling largely conversed in a manner that acknowledged assessment as something that simply must occur. Both the programmatic accreditation requirements and the large number of newer faculty, who have entered Kipling with an understanding that assessment of student learning is part of academic responsibilities, may have influenced the faculty reaction. Given that such extreme variances existing at all three institutions, it is difficult to know if such findings were driven by efforts at the program level, school, or institutional level.

The Distinctions Associated with Edgington’s Chemistry Department

Edgington’s Chemistry Department was often the noted exception in discussing changing elements of organizational culture. The Chemistry Department is an interesting case in that faculty discussed the increased importance of assessment within the department, and derived material benefits due to assessment planning. Yet, faculty felt uncertain about any significant shift in elements of organizational culture. The experiences and thoughts relayed by the chemistry faculty suggest that assessment of student learning had already been embedded through the program accreditation requirements and the existence of national exams used to measure program effectiveness. The Chemistry Department was the only program studied where an outside exam served as a direct measurement of program performance. The Chemistry Department faculty, without question, had developed a robust and consistent assessment plan. However, the
plan was built on the existing values and practices of looking at evidence of student performance to assess student progress and competency.
CHAPTER SIX: SUMMARY CONCLUSIONS AND IMPLICATIONS

Summary Conclusions

The cross-analysis discussed elements of culture affected by the process of developing and implementing methods to assess student learning at the program level, and described shifts in to values, behaviors, attitudes, and practices. While both similarities and nuances exist throughout the programs studied, a few salient features emerge. First, is the notion of value. Through the sensemaking process, faculty, within the programs studied, established a need for assessment that resonated with their respective programs. With clear academic rationale for the effort, value associated with assessment increased. Once initial need was identified, the work and activities that took place during development and evaluation phases reinforced the academic value of assessment. While it was important for faculty to create value around assessment internally, leadership personnel were often critical to facilitating and supporting the meaning making process for faculty.

Second, many of the shifts in elements of organizational cultural occurred during the development stages of assessment plans. Consistent throughout the cases was an increased importance and conversation around curriculum fit. Further, ensuring that program curriculum was intentional and in alignment with program goals and institutional missions became a priority. Continuous, open, and collective dialogue led to changing practices in curriculum and syllabi development, and resulted in changes to curriculum/learning sequencing and, where applicable, new coursework designed to take place earlier in a student’s career.
Third, the importance of resource support for assessment efforts relative to influence on elements of organizational culture was striking. Resource support included all elements that supported the assessment effort, from new positions on campus, new committee structures that take time away from the faculty doing other things, to providing training and development resources. In every case, resource support influenced value, behavior, attitude and practices associated with assessment.

Fourth, while shifts in cultural elements occurred during development stages of assessment plans, they were rooted into the organizational culture during implementation and evaluation. Implementation of assessment plans occurred through traditional faculty member governance structures, suggesting that the actual work of assessment had little influence on changing elements of organizational culture. However, the implementation of assessment did bring to life the practices and conversations had during development stages, and embedded the shifts in organizational culture originating in the development stages. The finding suggests that organizational culture shift occurs when faculty members consider the why and how of assessment, whereas implementation and evaluation embeds shifts experienced in development.

Finally, there is little doubt that the process to develop, implement, and continue assessment of student learning is complex and time intensive. Without an ongoing leadership or institutional requirement, formalized assessment efforts would diminish. The research revealed, however, that there are requirements with no perceived value and requirements with apparent value. While requirements for assessment of student learning are becoming necessary, along with them comes the need for faculty members to
recognize value in the effort. As noted in a few programs’/institutions’ first attempts to require assessment, failure and/or resistance occurred due to lack of value of the effort for the faculty. The finding suggests that when perceived value of assessment shifts, faculty engage in process change that further shifts elements of organizational culture. Successful assessment efforts influenced behaviors, attitudes, practices, and values for the programs studied, but changes in attitude, practices, and behaviors stemmed from a change in value. Without a change in value, other shifts potentially necessary for successful assessment efforts may have not occurred.

In summary, the present research effectively identifies the shifts in elements of organizational culture that occurred in six programs that have successfully developed and implemented formalized assessment of student learning. Findings may suggest that reflecting on shifts in values, behaviors, attitudes, and practices experienced during the planning and development stages of process may provide leading indicators of successful and sustainable assessment efforts. Further, findings suggest that the process of developing and implementing student learning assessment has lasting impact on organizational culture. The analysis produced through the research provides an opportunity to reverse-engineer assessment development efforts on campuses. Cultural implications that can exist during various stages of the process may themselves serve as evaluative tools to determine whether faculty development and implementation efforts have been embraced and supported for sustained success.
Implications for Future Research

As noted in the introduction, many may find benefit from this research. Individuals charged with demonstrating academic integrity and involved in the decision-making process regarding how to approach assessment of student learning initiatives on campuses may consider the research valuable.

This study may also serve as a foundation for future research in the area. First, as noted in Chapter 3, a limitation of the research was its focus on private liberal arts institutions. Similar research could be conducted on programs within the wide variety of other institutions that exist. Results may differ for programs at public universities, research universities, community colleges and significantly larger private institutions. Second, the study did not include general education, and a wealth of initiatives exist for assessment of general education. The study could be repeated for general education efforts as cultural influences may differ.

Third, while the study focused on successful program assessment efforts, four programs existed in institutions where successful program assessment was not pervasive. Research to understand the challenges associated with expanding successful program assessment efforts across other programs would further add to the body of knowledge. Fourth, the dissonance between grading and assessment of intended learning goals could be further analyzed, potentially producing meaningful literature for training and development. Finally, while the research touched on sustainability of assessment efforts, more research to further understand both the best practices and dangers surrounding
sustainable assessment efforts may prove useful to those responsible for developing or refining assessment plans.

At the time of the research, competency based programs of study that require mastery of specifically identified learning goals before a student can progress were emerging within the system of higher education. These programs have removed the concept of individual courses and elevate holistic consideration of student learning within the total program of study. These programs may further alter how higher education considers assessment of student learning and stand to produce significant changes in organizational culture. Assuming these programs become more pervasive, this study may serve as a comparative analysis for future studies completed on organizational culture within competency based programs.
Appendix A: Adaptive-Generative Development Model

(Lueddeke, 1999)
Appendix B: Interview Instrument

Interview Instrument – Semi-Structured Interview with Interview Subjects Selected

Introduction to all Interviews

“Thank you very much for agreeing to meet with me to discuss what really appears to be groundbreaking work for the program. I have read much of the written documentation in advance of our time together and look forward to learning more. It appears that the efforts to develop and implement programmatic assessment has involved several people and also resulted in a few changes to how faculty think about the program’s curriculum. Given that your program has completed an assessment loop I have chosen to study the program as part of research for a dissertation.

As a student, I am hopeful to learn from your experiences how your program has developed and implemented programmatic assessment. Further, from the decision points, I am interested in hearing your story, the twists and turns that may have happened in developing the SLOA, what happened during implementation, and certainly what has been learned through the process. While I have a few prepared questions, I am sure there were many facets to the process that the best series of questions could not capture. As a result, I hope our time together can feel more conversational and become a comfortable dialogue.

A few logistics before we get started. I have provided a consent form for you that discloses the purpose and use of the interview. I want to convey in written form for you the intentions of the study, use of the research, who may see the information, ensure that candor is encouraged, and demonstrate my commitment to represent your comments
accurately and responsibly. As the consent form discloses, I would like to record the interview for future playback and analysis. Are you comfortable with me recording the conversation? Now that we covered the fine print, do you have any questions for me before we get started? Great!

**Interview Questions for semi-structured interview**

*(Note: Test recording device for battery life and voice pick-up)*

<table>
<thead>
<tr>
<th>Number</th>
<th>Question</th>
<th>Question Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I understand that you held a role in the decision, development and/or implementation of the student learning assessment used. Is this correct?</td>
<td>Role Clarifying</td>
</tr>
<tr>
<td>2</td>
<td>Could you please summarize your role in the process?</td>
<td>Role Clarifying</td>
</tr>
<tr>
<td>3</td>
<td>To get us thinking, I would like to you think about the assessment efforts of the college, and tell me what do you think has changed as a result of the effort?</td>
<td>Pre-evaluation</td>
</tr>
<tr>
<td>4</td>
<td>Please describe the events that led to the current SLOA practice for your program/department?</td>
<td>Needs Analysis</td>
</tr>
<tr>
<td>5</td>
<td>In determining the assessment strategy, what do you think were the key events, or</td>
<td>Needs Analysis/Research and Development</td>
</tr>
<tr>
<td></td>
<td>decisions that changed faculty attitudes and/or behaviors toward assessment?</td>
<td></td>
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<td>---</td>
<td>--------------------------------------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>6</td>
<td>Which events had the most significance in influencing the direction you chose for the SLOA? Why were they significant?</td>
<td>Research and Development; Strategy Formation and Development - Cultural implications</td>
</tr>
<tr>
<td>7</td>
<td>What challenges existed in making the decisions involved in developing the SLOA program you have today?</td>
<td>Resource Support; Implementation and Dissemination</td>
</tr>
<tr>
<td>8</td>
<td>Once the decision had been made to develop SLOAs, please describe the activities and efforts that went into development of the assessment program. Who was involved in creating the new assessment program? How were they selected?</td>
<td>Implementation and Dissemination</td>
</tr>
<tr>
<td>9</td>
<td>What concerns existed for faculty regarding the assessment program?</td>
<td>Implementation and Dissemination - Cultural implications</td>
</tr>
<tr>
<td>10</td>
<td>How were those concerns addressed? Do you think that how the institution/department addressed those</td>
<td>Implementation and Dissemination - Cultural implications</td>
</tr>
<tr>
<td></td>
<td>concerns influenced behaviors or attitude towards assessment?</td>
<td></td>
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<td>-------------------------------------------------------------</td>
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</tr>
<tr>
<td>11</td>
<td>Please describe the process for developing the assessment measurements.</td>
<td>Resource Support; Implementation and Dissemination</td>
</tr>
<tr>
<td>12</td>
<td>Were there changes or additions in roles or responsibilities for faculty, staff, or administration during implementation?</td>
<td>Resource Support – Structural Change</td>
</tr>
<tr>
<td>13</td>
<td>Were there any barriers to implementation that had to be overcome? How were they overcome?</td>
<td>Implementation/Dissemination</td>
</tr>
<tr>
<td>14</td>
<td>When thinking back on the changes we just discussed for the assessment program and assessment tools, do you think the process of development changed any of the attitudes or practices towards assessment?</td>
<td>Evaluation</td>
</tr>
<tr>
<td>15</td>
<td>What do you feel are the main tangible and intangible benefits assessment program? Do you see any weaknesses?</td>
<td>Evaluation</td>
</tr>
<tr>
<td></td>
<td>Question</td>
<td>Type</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>16</td>
<td>Is there anything I haven’t asked you that I should have? Anything additional you would like to add? Any answer you would like to change?</td>
<td>Evaluation</td>
</tr>
<tr>
<td>17</td>
<td>Should I have any follow up questions, may I reach out to you again?</td>
<td>Procedural</td>
</tr>
<tr>
<td>18</td>
<td>Thanks once again for your time. It is greatly appreciated. Should I wish to use a direct quote from our time together, would you like to see the quote and surrounding context before using it?</td>
<td>Procedural</td>
</tr>
</tbody>
</table>
Appendix C: Example Consent Form

**Title of the Research Study:** Program Assessment and Culture Change: Understanding Organization Culture Change Resulting from the Development and Implementation of Student Learning Outcomes Assessment at the Program Level

**Protocol Number:** unknown

**Principal Investigator:**
Eric Kaplan

**Co-investigator:** NA

**Emergency Contact:**
Daniel Regjo
10 Oak Ridge Lane
West Hartford, CT 06107
Daniel@Regjo.com
(860) 365-1198

You are being asked to take part in a research study. Your participation is voluntary which means you can choose whether to participate. If you decide to participate or not to participate there will be no loss of benefits to which you are otherwise entitled. Before you make a decision you will need to know the purpose of the study, the possible risks and benefits of being in the study and what you will have to do if decide to participate. The researcher is going to talk with you about the study and give you this consent document to read.

If you do not understand what you are reading, do not sign it. Please ask the researcher to explain anything you do not understand, including any language contained in this form. If you decide to participate, you will be asked to sign this form and a copy will be given to you. Keep this form, in it you will find contact information and answers to questions about the study.

**What is the purpose of the study?**

- The purpose of the study is to learn more about how the [INSERT PROGRAM OF STUDY] at your institution developed and implemented its assessment program, focusing on what resulting organizational culture changes may have manifested for the program’s faculty and leadership. The study is performed as part of earning a doctoral degree in higher education management from the University of Pennsylvania.
Why was I asked to participate in the study?

- You are being asked to join this study because you have been identified as a member of the \textit{INSERT PROGRAM OF STUDY} who meets the following criterion relative to the inquiry.
  1. Work full-time for the program of study or institution.
  2. Have working knowledge the efforts taken to develop, and implement programmatic assessment
  3. Represent the facets of the institution responsible for determining the processes, policies and procedures associated with the integration efforts
  4. Have a willingness to speak candidly about the activities in which the college engaged

How long will I be in the study? How many other people will be in the study?

- The study will take place over a period of 10 months. This means that for the next 4 months you will be asked to spend only approximately 60 -120 minutes for a first interview and if necessary an additional 30-60 minutes for a second follow-up interview.
- It is expected that one 60-120 minute interview will be needed, and permission is sought to contact you for a follow-up interview should the need arise.
- You will be one of \textit{INSERT NUMBER OF PEOPLE} interviewed as part of the study.

Where will the study take place?

- The interviews will be scheduled on dates, times and locations most convenient to the interviewee. The researcher will contact you directly to formally set up a date and time between late July and late August 2013 with the expectation to conduct the interview in September-November, 2013.

What will I be asked to do?

- You will be asked several questions relative to the inquiry and will be asked questions that both are descriptive and qualitative in nature. In addition to questions asking you to describe the processes and events, you will be asked questions inquiring about your personal and professional opinions about the events in which the program engaged to develop and implement its assessment program.

What are the risks?

- There are no health or mental risks associated with the interviews

How will I benefit from the study?

- There is no direct benefit to you. However, your participation provides an opportunity to provide candid feedback of the development and implementation
process, and could help many understand more about how institutions are responding to the changing regulatory and accreditation compliance environment that can benefit you indirectly. Further, your responses will assist in producing emergent themes that may be useful for expanding the success efforts witnessed within the INSERT PROGRAM OF STUDY at your institution to other programs or at an institutional level. In the future, your contribution may help other institutions currently faced with similar desires for successful, useful and meaningful assessment efforts understand the organizational culture changes that may need consideration as result of these efforts.

What other choices do I have?
- Your alternative to being in the study is to not be in the study.

What happens if I do not choose to join the research study?
- You may choose to join the study or you may choose not to join the study. Your participation is voluntary.
- There is no penalty if you choose not to join the research study. You will lose no benefits or advantages that are now coming to you, or would come to you in the future.

When is the study over? Can I leave the study before it ends?
- The study is expected to end after the interviews have been completed and information is collected. Leaving the interview prior to its end time will produce no health or mental harm to your well-being. You will be asked if the portion of the interview that was conducted may be used as part of the study. Should you object to this request, your interview will be removed from the study.

How will confidentiality be maintained and my privacy be protected?
- The information collected in this study will be used as part of the research conducted for a doctoral dissertation, and as a result will be published at a minimum in the library of the University of Pennsylvania.
- Anonymity is granted as a part of this research. While the programs will be identified, unless the program name could in some way identify the institution, the institution’s name will not be disclosed. Rather than institution name, general identifiers such as small, mid-size and large, and geographic identifiers such as Midwestern, or Northeastern, will be used.
- It is expected that titles for individuals will be used, but in the event of a unique title, or more general title will be substituted. Basic information will be provided about an institution, but not enough that the institution would be very easily identified.
- An option to review the write-up of the findings will be produced to ensure the institutions feels appropriately anonymous and to validate contextual integrity.
• It should be noted that the interviews conducted will be recorded unless requested otherwise by the interviewee. Recordings and/or researcher notes will be transcribed for research purposes.
• Please check with and “X” if you do NOT wish your interview recorded.

Will I have to pay for anything?
• There is no cost associated with the study

Will I be paid for being in this study?
• There is no payment for participating in the study

Who can I call with questions, complaints or if I’m concerned about my rights as a research subject?
• If you have questions, concerns or complaints regarding your participation in this research study or if you have any questions about your rights as a research subject, you should speak with the Principal Investigator listed on page one of this form. If the Principal Investigator cannot be reached or you want to talk to someone other than those working on the study, you may contact the Office of Regulatory Affairs with any question, concerns or complaints at the University of Pennsylvania by calling (215) 898-2614.
Appendix D: Case Study Coding Template

(Creswell, 2013)
References


