IMPROVING UNDERGRADUATE HIGHER EDUCATION
THROUGH CURRICULUM REFORM

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DEDICATION

To my wife, Dr. Angeles Rodriguez de Gonzalez, who supports me in my pursuit of knowledge.

To my Mamá y Papá, Raquel and Ramon Gonzalez, who taught me the importance of education.

To Bob Zemsky and the many other scholars who dedicate their lives in pursuit of making our world a better place though education.
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How can I start to thank the many people who helped me in my journey of knowledge? Perhaps a good place to start is at the beginning, with my parents. It is in Spanish because they cannot read English:

Mamá y Papá, deseo darles las gracias por inculcarme la importancia de la educación. Por su constante insistencia que la educación es la base de la prosperidad – porque no querían que yo trabajara igual que ustedes. El honor de haber obtenido un doctorado no fuese posible sin su apoyo. Estoy eternamente orgullo y agradecido con ustedes. Que Dios los guarde siempre en un lugar muy especial. Gracias Mamá y Papá.

My journey could have not continued without the other major part of my life, my wife. My wife - who has ridden with me over the tides of our lives – both high and low. She steadfastly supported me in my journey of life and my quest for knowledge. To my lovely and kind wife, this degree is also yours. Many thanks for being who you are and for your support on this journey.

But as we all know, the creation of knowledge and learning does occur in a vacuum, nor could the academy exist or society improve if it were not for the many faculty members, teachers, educators, and researchers who dedicate their lives to teaching and creating knowledge. To these people who dedicate their lives to helping others, I offer my thanks for moving me along and helping me in my journey. It is through this group of dedicated individuals that lives can be changed, and society improved. The faculty members, teachers and researchers are the heart of our colleges and universities and at the heart of improving higher education.
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To the editors of the world, without whom good dissertations would not be possible. To all of you, my sincere gratitude. Forever, you shall be remembered.

Many thanks to all.
Employers, parents, legislators and researchers have expressed concerns that students are graduating from college at low rates, take too long to graduate, and do not possess the proper knowledge or skills to be successful at work or wherever life may take them. Many claim that the curriculum at colleges and universities no longer meets the needs of the students, employers, graduate programs, and society at large. One of the many potential solutions is reforming the undergraduate curriculum.

This research examines the factors that motivated two institutions to reform their curricula in efforts to improve student success. Both of the institutions are relatively small liberal arts educational organizations, one public and the other private. Each institution has differing missions and goals and is at a different point in its development. The study attempts to describe what was important enough to motivate them to change their curricula and why it mattered.

This research investigates the reforms of the two institutions in a case study manner, drawing upon published information and personal interviews to analyze what took place. The inquiry centered upon six basic questions.

1. What was the impetus for changing the curriculum?
2. What was the process used in changing the curriculum?
3. What changes were made to the curriculum?

4. What student outcomes were achieved?

5. How did the curriculum reform impact the institution?

6. What lessons were learned through the reform process?

Reforming a curriculum is a long, complex process, requiring input and consensus from many stakeholders, especially faculty. The manner in which each organization gained faculty endorsement for the reform is analyzed. Actual changes made to the curricula are documented. The research explores student outcomes and the impact that the reform had on the faculty and institutions. Then the researcher attempts to obtain indications that the improvements made by the institutions are achieving the intended goals. Learning is a complex phenomenon to assess, and every organization is challenged to find a way to assess learning effectively.

The research reports on what took place, what was learned, and what other potential curriculum reformers can expect if they, too, embark upon reform. The study shows that faculty and strong faculty leaders (often cited in the literature as causes of ineffectual curricula) are crucial to the reform process and without adequate assessment, the true results of a reform cannot be known. Much remains to be learned about the extent to which curriculum reform can improve higher education and in fact be a cure of societal maladies. Opportunities for improvement abound. The researcher attempts to identify similarities and differences, seeking fundamental conclusions. In this manner the study proposes to be used as a resource for other educational organizations interested in either improving or completely revamping their curricula.
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CHAPTER 1: INTRODUCTION

William Schubert (1993) once asked, “Who decides what is worthwhile to know and experience, in order that human beings might reach greater potential and develop a more just social order?” Every day over 7000 colleges, universities, and degree granting institutions in the United States attempt to do just that (National Center for Education Statistics, n.d.). Every day over 1.2 million postsecondary teachers attempt to do just that. Every day well-meaning foundations, associations, and experts attempt to do just that.

The question remains unanswered, most likely because of the complex nature of the problem and higher education in general. Many studies have attempted to determine an optimal curriculum, or at least establish a framework for an optimal curriculum. This study is not one.

This study is a story of two curriculum reforms. It will attempt to explore procedures, issues, solutions, and outcomes associated with constructing a curriculum. It will relate what others are doing in efforts to achieve student success. The study will attempt to uncover commonalities, pass on lessons and observations for those who might want to embark upon a reform journey. It will serve as a reference for similar institutions curious to know what is going on “in their own backyard” with regards to how two higher education institutions approached the complicated issue of curriculum reform. Hopefully, this study may serve as another helpful source of information for those who do get to decide “what is worthwhile to know and experience.”
Background

Those in a position to decide have a common, serious responsibility. What students learn affects nearly every aspect of their lives and has far-reaching effects on society and generations to come. America’s college graduates are not ready for work, according to the Association of American Colleges and Universities (1990). Employers want their hires to use a broader set of skills and have higher levels of learning and knowledge than in the past (Hart Research Associates, 2010). Entire books can—and have been—written about what is wrong with higher education today (Bok, 2006; Arum and Roksa, 2011; Zemsky, 2013).

Many blame the curriculum. The Association of American Colleges and Universities (1990) claims that an ineffectively designed curriculum is the major cause of the erosion of learning in the United States. The Spellings Commission called for America’s colleges and universities to develop new curricula (along with pedagogies and technologies) to improve learning (U.S. Department of Education, 2006). Robert Zemsky (2013) states that the curriculum is the best place to start when searching for solutions—it is the curriculum that matters most. The National Education Association (2014), the National Academy for Academic Leadership (n.d.), and the Council of Independent Colleges (2014) offer valuable insights and detailed programs for designing and re-designing curricula. The general consensus among these and other researchers is that many curricula no longer serve the needs of 21st century students. The curriculum has ossified.
Research

This research looked at two universities that reformed their curricula. The intent was not to critique or evaluate their performances or outcomes, but rather to document their reforms with the intention that others may use this study as an additional resource as they consider improving undergraduate education through curriculum reform.

This research examined the factors that motivated the two institutions to reform their curricula. Both of the institutions are relatively small liberal arts educational organizations—one public, the other private. Each institution has differing missions and goals and is at a different point in their development. The study attempted to describe what was important enough to motivate them to change their curricula and why it mattered.

Each institution defines curriculum differently, which affected its approach and procedure. The research documented the process used by each institution in its journey of change. It conveyed a sense of the different means that institutions currently use to change their curricula—what works at one institution may not be effective at another.

Reforming a curriculum is a long, complex process, requiring input and consensus from many stakeholders, especially entire faculties. The research examined the manner in which each organization gained faculty endorsement for the reform. Actual changes made to the curricula were documented, as well. The research explored student outcomes and the impact that the reform had on the faculty and institutions. Then the researcher attempted to obtain indications that the improvements made by the institutions are achieving the intended goals. Learning is a complex phenomenon to assess, and every organization is challenged to find a way to assess learning effectively.
The research reported on what the institutions have learned in going through this process. It identified similarities and differences, seeking fundamental conclusions. Additionally, the researcher provided final thoughts for presidents and universities contemplating reforming their curricula to consider. Lastly, the researcher provides alternative conjectures regarding how curriculum reform can be used to improve higher education. In this manner the study may be used as a resource for other educational organizations interested in either improving or completely revamping their curricula.

**Research Methodology and Rationale**

The goal of this research was to better understand curriculum reform in higher education. By employing qualitative methods, this research provided valuable insight into what reformers were thinking as they progressed through the reform process. By employing quantitative methods, it also documented the measurable achievements to the extent possible.

This research used the case study method to examine the issue of curriculum reform in higher education. Direct observations and personal interviews of those people involved in the reform were obtained, asking “How,” “Why,” and “What” questions. This approach is most appropriate for a case study method, in which contemporary events and relevant behaviors cannot be manipulated (Yin 2012).

For the purpose of this study, the term curriculum was intended to mean “an academic plan that incorporates the purposes, content, sequence, learners, instructional processes, instructional resources, evaluation and adjustments made to the plan” (Lattuca and Stark, 2009). Some institutions use a more expansive definition of curriculum. For instance, some believe that curriculum covers *everything* a student may experience: even
the experience of students with the Business Office on campus is part of the curriculum. Others use a more restrictive definition. For instance, some believe that curriculum refers merely to course content. In any case, this study showed that curriculum involves much more than the delivery of information. Many factors had to be taken into consideration when designing a curriculum.

Two case studies were conducted analyzing universities that reformed their curricula between in 2001-2009. The researcher examined documents relevant to the curriculum reforms and interviewed the parties involved in order to answer six exploratory research questions:

1. What was the impetus for changing the curriculum?
2. What was the process used in changing the curriculum?
3. What changes were made to the curriculum?
4. What student outcomes were achieved?
5. How did the curriculum reform impact the institution?
6. What lessons were learned through the reform process?

One case study examined a selective, private, not-for-profit liberal arts university with an enrollment of approximately 2000 students. The other case study examined a liberal arts school in a comprehensive public university, also with an enrollment of approximately 2000 students. Data provided by each university was first reviewed and analyzed. Then a database was developed, which was used to prepare initial reports of the findings for the universities. After preparing each report, a gap analysis was performed to determine if additional information was needed to answer the research questions and whether any information provided in the documents needed to be confirmed.
The researcher interviewed faculty and administrators involved in the curriculum reform, as well as faculty and administrators knowledgeable about the reform and its outcomes. After each university visit, the interviews were transcribed and coded for inclusion in the database and each university’s findings report. The researcher shared each findings report with the appropriate university to confirm accuracy. Findings have been triangulated with other sources, both internal and external.

Whenever possible, the researcher sought quantifiable data to substantiate information gained during interviews. However, as is typical for a case study, the researcher relied heavily on the impressions of the interviewees, which had inherent risks. Different persons have distinctive impressions of the same events, and memories tend to fade over time. Even the same person relaying the same anecdote will tell it differently every time. For the purposes of telling a reform story, however, the impressions of those persons contributing to the story are deemed to be significant. The researcher attempted to relay the accounts as accurately as possible, taking into account multiple interpretations of the same events. The researcher assumed that each respondent was qualified to participate, did so willingly, and, to the extent possible, replied accurately and honestly. As an additional effort to provide impartial and comprehensive accounts of events and outcomes, the names of all participants and studied institutions have been changed.

The persons selected to be interviewed were chosen at the recommendations of the institutions. Relying upon recommendations also poses a risk in that perhaps not all viewpoints have been represented; the views of the most positive reform supporters were probably over represented and the views of the critics of the reform were probably under
represented. Most of the empirical information has been self-reported. Moreover, the
Graver School of Liberal Arts is a school within a university, which poses a difficulty in
obtaining empirical information from outside sources. These factors are also a risk.

Site Selection

Three main criteria contributed to site selection for the case studies. The
institution must have reformed its curriculum at least four years ago so that results from
the reform process were available for at least one cohort of graduates; the reform had to
have been comprehensive, affecting the entire institution or a division within an
institution rather than a single major or program; and the reform should have impacted
undergraduate students.

Two sites were selected: Abenaki University and the Graver School of Liberal
Arts at Epperton University. The selection process took place in several phases. First, the
researcher had to identify sites that had reformed their curricula. The researcher contacted
most of the accrediting agencies across the United States to find out if any of their
member universities had reformed their curricula. Not surprisingly, many of these
inquiries failed to provide viable candidates. Next, the researcher reviewed websites and
publications of higher education organizations such as the Council of Independent
Colleges, Council of Higher Education Accreditation, Chronicle of Higher Education,
Inside Higher Education, The National Center for Public Policy and Higher Education,
The American Association of Colleges and Universities, and President Perspectives
looking for any mention of institutions that had undergone curriculum reforms. In the
Degree Qualifications Profile section of a Council of Independent Colleges publication,
the researcher found nine universities that had reformed their curricula; President
Perspectives mentioned another university. Each of these universities was contacted. Some had conducted partial reforms, while others were still in the process of reform. Four of the institutions that had reformed their curricula agreed to participate, including Abenaki University. The other three later withdrew.

The researcher then searched the internet, which uncovered additional institutions that had reformed their curricula. Some were still implementing reform; others did not respond to the researcher’s invitation to participate in the study. In total, the researcher contacted sixteen colleges and universities who claimed to have reformed their curriculum. Finally, the Graver School of Liberal Arts at Epperton University responded and agreed to participate. In this manner the two participating institutions were selected.

Coincidentally, both were liberal arts institutions of the same approximate size located in towns of similar size, although these were not stated requirements of the selection process. The researcher is aware that small liberal arts institutions in small towns may tend to have faculties with mindsets very different from those at institutions with completely different foci. This may limit the relevance of the findings.

Overview of Chapters

Chapters Two and Three provide the greater part of the research of the two case studies. The chapters provide brief overviews of the institutions and summaries of the process each institution went through in examining and changing its curriculum. The summaries provide overviews of the thinking processes, the decisions made, and the challenges faced as the universities planned and implemented their curriculum reforms. The summaries also describe the specific changes made to each university’s curriculum,
and, to some extent, the difficulties in ascertaining the impact that the reform has had on student learning.

Each chapter ends with a brief discussion of what the institutions learned in their efforts to improve student learning through curriculum reform. Their stories reveal that curriculum reform is a time-consuming, laborious process that requires coordination, negotiation, and patience. They also illustrate that for curriculum reform to be successful, it must focused on students, have trusted leadership, and involve faculty members at every stage. These and other preliminary findings are presented.

Chapter Four provides the researcher’s thoughts on what to expect during a reform. It finds that strong faculty leadership, determination, patience and support are crucial to success. Chapter Five includes a summary of key findings and an analysis. It establishes that the motives for undertaking a reform are varied and, most often, admirable. A curriculum reform can have the intended results; however, opportunities for curriculum reform to have positive, lasting effects on higher education exist and remain largely untried. Concluding remarks and opportunities for further research are also presented.
CHAPTER 2: CURRICULUM REFORM AT THE GRAVER SCHOOL OF LIBERAL ARTS, EPPERTON UNIVERSITY

Brief History and Overview

The Thomas S. and Evelyn C. Graver School of Liberal Arts (the Graver School) is the largest privately-endowed and most diverse school at Epperton University (EU) (“Welcome to the Graver School,” 2014). EU is also home to the Oritz School of Science and Technology, the Jophsen School of Business, and the Cathright School of Education and Professional Studies, which are also privately endowed (“Academics@EU,” 2014).

EU’s history dates to its founding in 1922 by the State legislature as a two-year college. After several name changes and a series of expansions, EU evolved into a comprehensive, four-year, nationally accredited university, offering 54 undergraduate and graduate programs (“History of Epperton University,” 2014). EU has received ample recognition for providing excellent value and education. In 2014–2015, EU was recognized by U.S. News and World Report as one of the “Best Regional Universities in the North” and one of the “Best Colleges for Veterans.” That same year, it was ranked by The Princeton Review as one of the “Nation’s Best Institutions,” and Best Choice Schools named EU as one of the “50 Great Affordable Eco-Friendly Colleges for 2015.” (“Rankings,” 2014)

EU takes pride in being a premier, comprehensive State Public University offering excellent, affordable education in undergraduate liberal arts, sciences, business, nursing, education, social work, and applied master’s and doctoral programs. Its highest purpose is empowering students by providing the knowledge, skills, and core values that
contribute to active citizenship, gainful employment, and lifelong learning in a
democratic society and interdependent world. (“Epperton University Mission,” 2014).

Part of the State University system, EU is accredited by the Middle States Commission on Higher Education. EU receives approximately 25% of its funding from the State. The remainder of its operating funds is obtained from tuition and fees, and from the Epperton University Foundation, Inc., a non-profit organization which raises, invests and contributes funds to advance EU’s mission. (“EU at-a-glance,” 2014)

EU is a teaching university that emphasizes research. It strives to hire faculty members who have a passion for teaching but who also have a love of research inquiry. EU believes that performing inquiry nurtures teaching excellence and enhances content, so that faculty members can have a profound impact on the lives of students. (Faculty member, personal communication, January 27, 2015). (Faculty member, personal communication, January 28, 2015).

The State’s commitment to the liberal arts began with the establishment of the Graver School at EU in the 1960s. The Graver School pursues the same mission and values as EU by offering 42 programs in the visual and performance arts, humanities, and social sciences, as well as majors and minors in interdisciplinary and applied fields, which are housed in 13 departments (“History of Epperton University,” 2014).

**Impetus for Curriculum Reform**

The primary impetus for changing the curriculum stemmed from the desire of the president to make Epperton University an institution of distinction and to acquire the prestige that certain private institutions enjoy. For faculty members, the initial impetus was the opportunity to reduce their teaching load, allowing faculty members more time to
conduct research. (Two faculty member interviews, January 28, 2015). Later, a core
group of faculty members expanded the goal to include enhanced learning environments
and experiences designed to provide students with a more engaging learning experience
and, thus, with a better education. It was also thought that by conducting more research,
faculty members would become better teachers and scholars (Faculty member, personal
communication, January 26, 2015). A further impetus was the desire of faculty members
to respond to the quality of entering students. These students had increasingly higher
GPAs, improved test scores and excellent recommendations. Faculty members felt that
students required a higher quality education than was being offered. Subsequently,
faculty members wanted to make the courses more rigorous and engage or re-engage with
the students. (Faculty member, personal communication, January 28, 2015).

**Reform Journey**

Always mindful of new ways to provide a first-rate education to students, in 2004
the EU president traveled to The College of New Jersey (TCNJ) in Ewing, New Jersey as
chair of a reaccreditation committee representing the Middle States Commission on
Higher Education. The president indicated she was intrigued by the impact that a new
course-based curriculum was having on the TCNJ academic community and the
recognition TCNJ was receiving for providing a topnotch education.

The course-based curriculum implemented at TCNJ resembled the system found
at elite, private, liberal arts institutions. Under a course-based model, the requirements for
graduation are based upon the number of courses completed regardless of the number of
credits the courses represent (if credits are even assigned). A credit-based model
establishes requirements for graduation according to the number of credits completed. At
TCNJ, students completed 32 courses (4 courses each of the 8 semesters). This model differed from that of EU, where students completed 132 credit hours, approximately 37 courses of varying credit hours to graduate. At TCNJ, faculty taught three courses per semester, as opposed to four courses per semester taught by EU faculty.

According to a Graver faculty member and researcher, (personal communication, Graver faculty member and researcher, August 2007), reducing the number of required classes allowed students to be more engaged in their learning, more focused, study in greater depth, and participate in a greater variety of learning activities outside of the classroom. Concurrently, faculty members preparing for and teaching fewer classes could provide additional time to students, give more individualized feedback, spend more time grading student assignments and examinations, and conduct more research. Devoting more time to research helped faculty members make continuing contributions to their areas of study and develop their research skills. Students benefited from contact with faculty members who were up-to-date on content and who could help students learn inquiry methods. Overall, the course-based curriculum implemented at TCJN had a great impact on student success, and TCJN had gained recognition for providing a quality education. (Faculty members and researchers, August 2007)

Inspired, the Graver president returned from TCJN. She was convinced that the curriculum was inherently the prerogative of faculty and that any changes needed be driven by faculty members (Edson 2011). She encouraged EU’s Faculty Senate to investigate whether a course-based, four-credit curriculum had any merit for EU, and whether EU could and should consider adopting a similar system. Throughout the curriculum reform effort, faculty drove the process while the president, provost, and
deans stood by, guiding as faculty members explored the possibilities and ultimately made dramatic changes (Faculty member, personal communication, January 26, 2015). One faculty member in particular stated that if the administration had become involved, faculty members may not have approved the curriculum reform. Faculty members needed to know that the process was driven by their own colleagues and that curriculum reform was a mutual decision.

Initial resistance centered on several arguments, perhaps the most pervasive being: *if we are doing so well already, why change?* EU had already garnered much praise for its quality programs, as evidenced by accreditation agencies and independent rankings and assessments. Many did not want to go to great lengths to fix what did not appear to be broken. Moreover, the private university model was thought to be inappropriate for EU, since EU was *not* an elite, selective university. Others objected to the change in workload that a comprehensive curriculum review would bring about. Some schools and programs within EU had already switched to a four-credit structure, so a full-scale curriculum reform would have little influence on their established curricula. However, some programs had just completed their program accreditation and this would mean that they would have to be re-accredited. Other schools and programs objected for fear of losing hard-won university resources. Conversely, some faculty members saw the curriculum reform as an opportunity to reduce their teaching and work load. (Faculty member, personal communication, January 26, 2015). In the spring of 2005, after much deliberation, the Faculty Senate concluded that the model did indeed have sufficient merit. It called for further investigation to determine if the model should be implemented at EU. The president and the provost endorsed the Faculty Senate’s decision.
The Faculty Senate then commissioned a university-wide committee that included faculty representatives from each of the four schools, appropriate standing committees, and representatives from the provost’s office to further study the idea. Throughout the majority of a year, committee members visited TCNJ, Dickinson, Swarthmore, Franklin and Marshall, and Gettysburg colleges which had similar curricula; met with various reform experts, and held a series of meetings across campus with full faculty, academic departments, administrative officers, and individual faculty members in various venues. The 12-member, university-wide committee voted on recommending to the Faculty Senate that a course-based model be adopted at EU. The motion was passed, 10 for and 2 against. The recommendation would require the university to change from a credit hour model to a course-based model. The recommendation was presented to the Faculty Senate for a vote and was approved (Faculty member, personal communication, January 26, 2015).

However, a motion—the first of its kind—was made that the entire university’s full-time faculty vote on the recommendation. All full-time faculty members were asked to cast their votes in person, at a particular place on campus, and at a specific time. Turnout was almost 100% due to the emotionally-charged nature of the issue. The faculty rejected the recommendation by a vote of 159 to 147, despite the earlier approval by the Faculty Senate. A member of the review committee and professor of European Literature reported that faculty members were vigorously lobbied to reject the proposal. He believed that the proposal would have passed if not for the anti-approval lobbying by some faculty members. According to another senate member, (Senate member, personal
communication, January 28, 2015), ultimately the vote “was largely shaped by calculations regarding their other interests and self-interest, in some respects.”

The champions of the reform were keenly disappointed. The president was discouraged, but commented that it was best for the university that the reform did not pass at that time, given the small margin of approval. The president thought that if the curriculum were to be reformed, it could only be accomplished with the endorsement of a great majority of the faculty membership. In retrospect, the above senate member reported that, although disappointing at the time, this outcome was probably the best thing that could have happened. The stalwart supporters of curriculum reform later reconvened and developed a more detailed plan to undergo reform at a more manageable pace. The year had not been a waste, and the issue was far from dead (Faculty member, personal communication, January 26, 2015).

The Graver School Pursues Reform

Among the ashes of defeat, three members of the original 12-member committee remained convinced that a four-credit course model would be beneficial to the students at EU. They approached the dean of the Graver School and inquired about pursuing the reform at the Graver School alone. After some consideration, both the Dean of Graver School and the President of Epperton University agreed that Graver should pursue the change. In the summer of 2006, the Graver School convened an ad hoc committee, the Select Committee on Comprehensive Reform (SCCR), to further investigate the reform. The SCCR’s task was to prepare a proposal for a course-based model that would improve the education of students, invigorate liberal arts education at the Graver School, and provide all (or most) of the advantages of a course-based model while maintaining
continuity with EU’s credit-based system (Faculty member, Nov. 2007, Transformational Curriculum Reform).

Over the course of that summer, the SCCR worked tirelessly. By August, the committee presented a written proposal based upon a four-credit course structure, allowing several possibilities for the fourth credit. These possibilities would likely entail additional, independent, and engaged/hands-on/experiential work outside of class, rather than additional seat time. The issue of curriculum reform at the Graver School was brought to the full-time Graver faculty for a vote. The faculty voted in favor of the idea of the reform, but requested further study. The real work had only just begun. According to another dean, the allure of a three three-three load over a three four-four teaching load worked in favor of Graver embracing the reform. At this point, a Special Operations (Special Ops) committee was formed to further develop the model. The Special Ops Committee was co-chaired by two faculty members and included faculty members and representatives from the dean’s and provost’s offices (Faculty member, Nov. 2007, Transformational Curriculum Reform).

For approximately a year, this committee conducted intensive research. Since EU is part of the State University system, its curriculum had to comply with the State Code of Regulations (SCOR). SCOR establishes the requirements for students graduating from the State university system. The Special Ops Committee conducted a detailed study of the State’s credit hour requirements. It met with the Graver Curriculum Committee, the entire University Curriculum Committee, department chairs, and, jointly, with the entire faculty at other EU schools. Even though this was a Graver School initiative, the committee had to secure the approval of all of the other schools because the four-credit model was going
to change the General Education requirements (Faculty author of the report, Nov. 2007, Transformational Curriculum Reform). In particular, it would to add two credits to the Graver School’s “slice of the General Education pie” due to a simple mathematical construct requirement—the General Education requirements had to be divisible by four (Faculty member, personal communication, January 26, 2015).

Once again, resistance arose. Some faculty members favored the change and others were adamantly opposed. One faculty member called it “the height of arrogance” to bring back the initiative after it had been voted down campus wide. Skeptics from the other schools maintained that it was merely a way for the Graver School faculty to reduce their course loads, while supporters of the reform insisted that it was really about student learning and not about faculty load at all. Other faculty claimed that if the curriculum was enhanced, it would result in students leaving Graver School, decline in grades, graduation rates and a decline in the retention rates, and more students placed on probation. (Faculty member, personal communication, January 26, 2015); (Faculty author of the report, Nov. 2007, Transformational Curriculum Reform).

A Special Ops Committee member reports that Special Ops Committee members had to become “thick-skinned” to remain unperturbed by some of the impolite conduct and even a few nasty comments. The committee realized that the majority of objections centered on those two additional general education credits being granted to the Graver School. One simple way to alleviate the problem was to back down on the number of General Education requirements, going from 32 to 28. Essentially, one faculty member stated, “We had to eat turf.” Because the committee firmly believed that the reform would serve EU students better, revolutionize the Graver School, and invigorate the
liberal arts at EU, the Graver School was willing to give away two credits. In March of 2007, the final proposal was submitted to the Faculty Senate, passed, and went to the entire university for an open-microphone discussion and a final faculty vote.

The reform supporters steeled themselves for another rigorous debate. Surprisingly, now that the general education credit requirements had been settled to everyone’s satisfaction, very little opposition was presented. In fact, a distinguished professor, from outside of the Graver School, rose in defense of the reform supporters, stating, “They’ve done their homework, they’ve meet with everyone, they’ve listened to all of us. Now let’s vote!” Far fewer faculty members voted than in the previous year, but the outcome was 100 to 25 in favor of adopting the curriculum reform in the Graver School of Liberal Arts.

The proposal called for the Graver School to convert its three-credit course model to a four-credit model. The conversion would require that the Graver School build upon its current three-credit courses by adding alternatives for more in-depth learning. The proposal also included the reconfiguration of the teaching load from four, three-credit courses (i.e., 12 credits) to three, four-credit courses (also 12 credits), and the adjustment of majors, minors, and students’ loads to conform to the new model. (Faculty author of the report, Nov. 2007, Transformational Curriculum Reform). Many faculty members resisted the change because of the amount of effort necessary to rework their courses into the new four credit structure. (Faculty author of the report, Nov. 2007, Transformational Curriculum Reform).

The goal of the reform was to provide “all Epperton University students taking Graver courses with an enhanced, deeper, more focused, more engaged, and more
rigorous learning experience” than the school was able to provide under a three-credit model. The belief also was that the adoption of a four-credit model would “invigorate the liberal arts at EU and revolutionize how students and faculty work independently and together.” The final proposal called for the Graver School to become a four-credit course-based school, at which students were required to take four, four-credit courses each semester (i.e., 16 credits) in accordance with a course-based model. By contrast, the existing model typically required students to take five, three-credit courses (i.e., 15 credits) each semester. The new model could entail additional independent and experiential co-curricular activities and/or additional seat time. EU created a website in order to help inform, track, and facilitate the transition process. The website is still in existence at Frequently Asked Questions on the Epperton/Graver/curriculum web site.

The new curriculum was scheduled to be launched in the fall of 2008. The preparation was intensive and exhausting. During the summer of 2007, faculty representatives from each department attended workshops and other sessions to learn about methods of expanding classes from three to four credit hours and become familiar with SCOR requirements. They attended presentations by school experts, and were invited to share their experiences in developing reform strategies. School wide and departmental workshops were then held to introduce the reform concepts and map strategies. Throughout the process, faculty members were encouraged to completely re-envision their courses and incorporate enhancements not sought before, rather than merely attach extra work as add-ons to existing courses. All the while, they were kept mindful that the reform was not about reducing the faculty teaching load, but about reconfiguring—even refocusing—it to better serve both the students and the overall
Graver and EU academic communities. Departments, too, had to reconfigure their majors, minors and course requirements to meet the new standards. They were likewise encouraged to completely rethink all of their programs in order to build stronger, better enhanced ones. Department heads learned how to modify the majors and minors to be in compliance with SCOR requirements. (Faculty author of the report, Nov. 2011. Transformational Curriculum Reform)

Every course in every minor and major had to be revised and enhanced, officially presented, scrupulously examined and, ultimately, approved. A faculty member referred to the change process as quixotic, involving a tremendous amount of work. “It was kind of like everybody lifting the administration building and moving it.” Roadblocks were encountered at every step of the way, but, “We were stupid enough to continue.” (Faculty member, personal communication, January 26, 2015).

Starting in the latter part of the 2007 fall semester, schedules were established for departments to send the Graver Curriculum Committee the changes to their courses in every major and minor, along with notices of new courses to be offered in 2008. The intent was to finalize every enhanced program and course at least two semesters before it was scheduled to be offered. Between the fall of 2007 and the spring of 2009, the Graver Curriculum Committee reviewed more than 500 course enhancements and all of the minors and majors. Subsequently, all courses and programs approved by the Graver Curriculum Committee were then sent to the University Curriculum Committee for review and approval (Faculty author of the report, 2011; Transformative Curriculum Reform). By this time, nearly the entire campus could claim some input into the new curriculum. One faculty member reports that he literally could not walk across campus...
without someone offering him a comment or opinion. He had to continually drive home that the reform was about the students and not about the faculty. “It’s the students, stupid!” he jokingly refrained, in parody of the infamous phrase coined during the Clinton campaign of 1992. (Faculty member, personal communication, January 26, 2015).

Because of the complexity of the changes, the Graver School decided to implement a pilot program to determine how the changes would impact students and faculty. It was decided to implement the new four-credit program starting with Art, Philosophy, and Political Science in the fall of 2007. Although both the Graver Curriculum Committee and University Curriculum Committee had approved the enhanced programs and courses for the pilot programs earlier in the year, the provost reserved the right to reverse approval of the pilot programs in consideration of the high risk of serious and unforeseen issues. As the pilot programs were underway, plans were also furthered to implement the new program school wide. In the fall of 2008, there being no further restrictions, the switch was finally made (Faculty author of the report, 2011; Transformative Curriculum Reform).

**Reform Changes**

According to the Dean of Graver School, “Curriculum is the means by which we prepare our students for meaningful lives as individuals, as citizens, and as professionals. So it’s what we teach in our classes. It’s what we engage them with at this point in their lives.” In short, curriculum is sum and substance of an EU education. (Dean of Graver School, personal communication, January 28, 2015).
The Graver School was well aware that its reputation and standing were on the line, and was challenged to come up with a course-based system that maximized learning in the Graver School but also conformed to the three-credit based models in use by the other schools within the university. The result was a hybrid model intended to “provide all Epperton University students taking Graver courses—via majors, minors, General Education and electives—with an enhanced, deeper, more focused, more engaged and more rigorous learning experience,” and in so doing, “invigorate the liberal arts at EU and revolutionize how both students and faculty work—and work together—in the Graver School setting.”

The curriculum reform encompassed two basic modifications: 1) enhancing the current three-credit courses to meet the four-credit SCOR regulations, and 2) modifying the Graver School portion of the General Education requirements (Groups I and II) to support the new four-credit courses. (Faculty and researchers, personal communication, August 2007. Graver School Curriculum Reform)

Part I: Enhancing the Three-Credit Courses to Meet the Four-Credit SCOR Regulations

The State provided guidelines regarding what constituted a single credit hour and what enhancement options were available to convert three-credit courses into four-credit courses. Taking into account these requirements, the Graver School designed a seven-point enhancement menu, which was approved by the University Curriculum Committee in January of 2007. Unintentionally, the menu resulted in a set of guidelines that resemble the Association of American Colleges and University’s Liberal Education and America’s Promise (LEAP) ten initiatives for high impact. The Graver School had concentrated on selecting the enhancement options that best coincided with its mission and practices
already in place at the university. (Faculty member, personal communication, January 27, 2015).

The enhancement menu consisted of the following options.

1. Increased course content via enhancement readings—e.g., provide more primary, secondary, and/or supplemental readings.

2. Undergraduate research and information literacy—e.g., provide assignments that fulfill departmental programmatic approaches to undergraduate research and information literacy, systematically building students’ research and writing skills throughout their majors.

3. Technology—e.g., provide instructor-developed content, commercially developed course packs, digital audio/video demonstrations such as podcasting, chat rooms, course blogs, individual online tutoring, teleconferences with students at other campuses or international groups, field research, and student-authored independent research.

4. Higher-level critical thinking exercises—e.g., provide assignments that specifically develop skills in analysis, synthesis, and evaluation, thereby going beyond lower-level critical thinking exercises that target knowledge, comprehension, and application.

5. Service learning/civic engagement—e.g., provide assignments that place students in leadership positions to conceive of and implement programs to benefit others and/or involve students in developing good civic dispositions, as suggested in the 2006 Middle States Report.

6. International education/cultural enrichment—e.g., provide spring break study/experience abroad, museum visits, or cultural experiences within the local area.

7. Additional hour(s) in class, lab, or studio.

Courses could be enhanced by other means, but would require specific approval through the formal curriculum review process.

Table 2.0 shows how the menu guidelines were used in determining the minimum required time necessary to comply with SCOR regulations for the additional credit hour. Faculty members were required to refer to these requirements in determining the
appropriate enhancements. In accordance with SCOR regulations, students would need to have an additional 25% of graded and supervised coursework over all.
Table 2.0

<table>
<thead>
<tr>
<th>Enhancement</th>
<th>SCOR Regulation</th>
<th>Requirements</th>
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</thead>
<tbody>
<tr>
<td>Increased course content and/or collateral readings</td>
<td>(.16.C.1.c.)</td>
<td>Additional 45 hours per semester of supervised, documented learning.</td>
</tr>
<tr>
<td>Undergraduate research and information literacy</td>
<td>(.16.C.1.c. and/or d.)</td>
<td>Additional 45 hours per semester of supervised, documented learning and/or supervised instruction and documented learning through appropriate technology mediums.</td>
</tr>
<tr>
<td>Technology</td>
<td>(.16.C.1.d.)</td>
<td>Supervised instruction and documented learning though appropriate technology mediums.</td>
</tr>
<tr>
<td>Higher-level critical thinking exercises (analysis, synthesis, and evaluation)</td>
<td>(.16.C.1.c. and/or d.)</td>
<td>Additional 45 hours per semester of supervised, documented learning and/or supervised instruction and documented learning through appropriate technology mediums.</td>
</tr>
<tr>
<td>Service learning/civic engagement</td>
<td>(.16.C.1.c.)</td>
<td>Additional 45 hours per semester of supervised, documented learning.</td>
</tr>
<tr>
<td>International educational/cultural enrichment</td>
<td>(.16.C.1.c.)</td>
<td>Additional 45 hours per semester of supervised, documented learning.</td>
</tr>
<tr>
<td>Additional hour(s) in class</td>
<td>(.16.C.1.a.)</td>
<td>Additional 15 hours per semester of supervised, documented learning.</td>
</tr>
<tr>
<td>Additional hour(s) in lab or studio</td>
<td>(.16.C.1.b.)</td>
<td>Additional 30 hours per semester of supervised, documented learning.</td>
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</table>

In redesigning the courses, Graver faculty members were required to compare previous courses syllabi with new course syllabi that included the option/s that would best enhance the courses by one credit hour. Increasing seat time was discouraged, as the goal was to create courses that were more rigorous and engaging. The curriculum reformers urged faculty members to ask themselves what they were teaching and how they were teaching it. Under the new model, virtually all courses were enhanced or
completely redesigned--not only for students to experience *additional* course content, but to experience the course content in a *different way*. (Faculty members and researchers, authors of the report, August 2007. Graver School Curriculum Reform).

Some faculty members expanded course content by assigning additional readings (primary, secondary, and/or supplemental). Others required that a prescribed amount of research be conducted, and still others required more supervised, co-curricular activities. In many cases, the four-credit courses could require the same amount of seat time as the three-credit courses. However, the reform emphasized greater academic rigor and deeper engagement (Faculty member, personal communication, January 27, 2015).

The change to a four-credit model also meant that a typical full-time student who generally took five, three-credit courses (15 credit hours) per semester under the old system would now take four, four-credit courses, or three, four-credit courses and one, three-credit-hour course (16 or 15 credit hours) per semester. The shift from five to four courses would enable students to achieve a greater focus and deeper engagement in each course.

Under the new configuration, faculty would teach fewer courses and fewer students per semester, allowing them to focus more on each student and each course. Faculty members were now required to teach three, four-credit courses instead of four, three-credit courses. Although they still had a twelve credit hour load (4 courses x 3 credit hours vs. 3 courses x 4 credit hours), the number of students per class would remain the same, resulting in each faculty member teaching fewer students (4 courses x 30 students/class = 120 students vs. 3 courses x 30 students/class = 90 students). The new faculty load would enable teachers to deliver the best course “product” and provide
mentoring to students, which was another main goal of the reform (Faculty author of the report, personal communication, Nov. 2011. Transformational Curriculum Reform).

Many would argue that this new configuration effectively reduced the teaching load, and may have been an incentive for Graver faculty to vote for the reform. According to one faculty member, from the outset the reform was not about reducing the teaching load; it was about how to better serve students. The new model benefited students by providing faculty additional time to develop new course content and innovative pedagogy, offer additional mentoring, contribute more productive comments on student papers, and have more time to meet with students. Faculty members were obliged to rethink their courses in terms of content, pedagogy, methodologies pertinent to specific students’ learning styles, and outcomes relevant for the 21st century. Additionally, the enhancements required that faculty members improve their one-on-one interactions with students (in particular through related assignments), maintaining a student-centered focus. (Faculty author of the report, Nov. 2011. Transformational Curriculum Reform).

The faculty response to course enhancement was mixed and varied. A faculty survey conducted by the Graver School in May of 2009 revealed that all seven of the school’s enhancement options had been implemented in the initial course-enhancement process. In particular, faculty used Option 1 (increased course content and/or collateral readings) in combination with other options. Frequently, Option 1 was blended with Option 2 (undergraduate research and information literacy) and Option 4 (higher-level critical thinking exercises). Option 3 (technology) was also often used (Faculty members

Some faculty members enhanced their courses by assigning additional textbooks, scholarly articles, and/or more difficult readings. Others preferred to assign writing tasks such as analytical essays and lengthier assignments. Faculty members also asked students to complete more in-depth projects, documenting their research more fully, and reporting on their progress either in writing or in face-to-face meetings. Some faculty administered more difficult exams and assignments. Other faculty members employed technology to foster online class discussions, deliver reading and research assignments, and enable participation in interactive quizzes and other learning activities. Some faculty members required students to attend on-campus academic and cultural events, provide services or participate in civic engagement activities (as suggested in Option 5), and then follow up these activities with writing assignments. Some courses were enhanced with experiential field trips or international study abroad, in line with Option 6. A few of the art faculty enhanced their courses by adding additional class or studio time, meeting the requirements of Option 7. The flexibility of options allowed for customized enhancements that still met SCOR requirements. (Faculty author of the report, Nov. 2011. Transformational Curriculum Reform).

Part II: Modifying the Graver School Portion of General Education (Groups I and II) to Comply with New Four-Credit-Hour Courses

The adoption of a four-credit model by the Graver School also required the enhancement of the entire EU General Education program. The purpose of general education at both EU and the Graver School is to provide students with a broad
experience in the liberal arts as well as a common ground of understanding and
competence. EU upholds six learning principles that support a general education designed
to foster the personal, intellectual, and social development of EU students such that they
1) communicate effectively in diverse situations; 2) use multiple strategies, resources,
and technologies for inquiry and problem solving; 3) demonstrate qualities related to
personal, social, and professional integrity; 4) integrate knowledge from the humanities,
social, and natural sciences to broaden perspectives; 5) reason quantitatively and
qualitatively; and 6) demonstrate global awareness in order to function responsibly in an
interdependent world (Faculty members and researchers, personal communication,

Students are expected to express the learning principles through the following set
of learning goals: 1) skills: critical thinking, command of language, quantitative literacy,
information literacy, and interpersonal communication; 2) knowledge: breadth of
knowledge and interdependence among disciplines; and 3) dispositions: social
responsibility, humane values, intellectual curiosity, aesthetic values, and wellness.

Prior to 2007, students were required to take a minimum of 30 credit hours of the
Graver School’s General Education courses as follows: Group I (written and oral
expression, and humanities): five courses (15 credit hours); Group II (History and Social
Science): five courses (15 credit hours). Under the new model, the philosophy and
distribution of the General Education requirements did not change, although the course
requirements were enhanced to comply with SCOR requirements and support EU’s
General Education learning principles and goals (Faculty members and researchers,

As a result of the curriculum reform, the required number of classes in Groups I and II was reduced from ten to seven (30 to 26–28 credit hours, depending upon the class). This reduction was made as the aforementioned compromise with other schools to solicit agreement with the curriculum reform (Faculty member, personal communication, January 26, 2015). The Philosophy Department reduced its course requirements by two credits, thereby reducing the number of students who take Philosophy. One of the faculty members wished that the entire faculty had not given in on the two credit hour decrease. She believed that this resulted in a reduction in the number of students majoring in Philosophy.

The reform also resulted in reorganizing the Graver School’s groups of General Education courses to express the requirements in the simplest and clearest way possible. The requirements are now classified into three groups instead of the original two: Group I (English, courses developing competence in writing expressions): two courses (8 credit hours); Group II (History, perspectives of time and culture, and interconnectedness of the world): two courses (8 credit hours); Group III (Humanities and Social Science, affording perspectives and insights into beauty and truth): three courses (10-12 credit hours).

**Curriculum Reform Input Sources and Participants**

Although the curriculum reform was initiated and driven by the Graver School, it involved the entire EU community and many other internal and external constituents. The reform was achieved with input from best practices and research, other institutions which
had similar course models, and reform experts. It also included lengthy consultations and coordination with other members of EU: faculty representatives, chairs, administrators, and committees from each of the other three schools; the University Curriculum Committee; the Education Department; the Social Work department; the Health, Physical Education and Human Performance department; and the Ortiz School curriculum reform group. The major influence, of course, came from the State’s SCOR regulations, since SCOR establishes what constitutes a credit hour and the methods by which an additional credit hour can be added (Faculty author of the report, Nov. 2011. Transformational Curriculum Reform).

Accountability and Assessment

From the outset, the reform goal was to improve student learning and the learning experience. To ensure that its goals were being accomplished, the Graver School established processes to measure how faculty members enhanced their courses and programs, student gains, and what outcomes were achieved. All departments were requested to review the assessment program of each major and minor, and make the appropriate adjustments to capture the new higher-outcome expectations. Faculty members were required to indicate how they enhanced their courses in their annual self-evaluations, which became part of their evaluation criteria for the year. Chairs and subcommittees were asked to document how faculty members enhanced their courses. Students and faculty were surveyed. Graver continued to seek feedback until the point that “reform fatigue” was beginning to set in. Persons were simply tired of talking about it, and the reform was becoming the norm (Faculty author of the report, Nov. 2011. Transformational Curriculum Reform).
Maintaining accountability regarding the quality of courses was not free of challenges. One challenge involved measuring the bases upon which the courses were enhanced. The Graver School established procedures to confirm that the enhancements met all of the established criteria, as demonstrated by the manner in which it meticulously redesigned each course, major and minor to meet both SCOR and Graver requirements. However, procedures were not put in place to insure that at the time of the reform every pre-existing course actually started from the same three-credit level at the time of enhancement. Some courses may have been worth more or less than the base-line of three credit hours, depending upon the actual amount of work involved and other factors that determine the value of a course. For instance, a course that carried three credits but by design only required two credits of work may result in a four credit course after enhancement, but in reality is only a three credit course. Despite the efforts of the Graver Curriculum Committee and University Curriculum Committee, consistency could not be assured (Faculty member, personal communication, January 28, 2015).

The Graver School cannot assure that the new four-credit courses have not “slipped back” to three-credit courses over time. Faculty members reported making numerous adjustments to course enhancements over the first two years of implementation, either adding to or reducing the student work load. One could assert that reform is actually an ongoing process, and that frequent checks need to be put in place to keep the reform on track. Although the Graver School has initiated many internal and self-studies, a consistent, long-term assessment process does not currently exist. Nor did the university have a comprehensive, university-wide assessment program at the time of the reform. EU is now working on instituting such a program. Throughout the last few
years, EU has been collecting information to develop assessment measures. The university is considering implementing the model being used by the James Madison University. The James Madison University performs scheduled assessments at four stages of the academic career of every student: 1) matriculating student assessment during summer orientation for all entering freshmen, 2) mid-undergraduate point assessment in February, 3) graduating senior assessment in the academic major(s), and 4) regular surveys of alumni (JMU, Center for Assessment & Research) (Faculty member, personal communication, January 28, 2015).

**Outcomes**

In general, EU considers the reform a success. The Graver internal self-study reports that the new model is meeting or exceeding expectations, without the negative effects its detractors predicted. To date, some faculty members believe that the reform was a terrible idea, but they are a tiny minority. Even most of the skeptics would say that the reform worked. Actually, other schools and programs are considering changing to the four-credit model, according to an associate provost at Graver.

The additional rigor resulted in more in-depth work for students, more preparation for faculty members, and more grading. Class sizes were kept the same, resulting in each faculty teaching fewer students than before (4 classes x 30 students = 120 students vs. 3 classes x 30 students = 90 students). Faculty generated the same number of credit hours with fewer students (4 classes x 30 students x 3 credit hours per class = 360 vs. 3 classes x 30 students x 4 credit hours per class = 360). The four-credit-hour model provided an opportunity for students to gain deeper understandings of the subjects and to become involved in extracurricular research or other activities. Assessments showed that the
model works according to intentions. (Faculty member, personal communication, January 28, 2015).

Since no common assessment tool for the entire Graver School existed prior to the reform, evaluations varied greatly among departments. No pre-reform benchmarks existed, making it difficult to know if students were performing better. The measurement of improvement was routinely based on impressions from faculty and students. A series of survey/feedback programs was conducted with students and faculty, and department chairs and faculty had further opportunities to comment on the reform’s impact (Faculty author of the report, Nov. 2011. Transformational Curriculum Reform)

**Student Feedback**

Following the first year in which all students took classes under the new curriculum, the committee conducted a survey of the approximately 3000 students who had taken courses under the previous three-credit curriculum and under the four-credit curriculum. Students were asked the following three questions. 1) Does this four-credit course require significantly more work than the three-credit course(s) you have previously taken in this discipline? 2) Have you learned more in this four-credit course than in the three-credit course(s) you have previously taken in this discipline? 3) Have you been more engaged in this four-credit course that in the three-credit course(s) you have taken in this discipline? (Faculty author of the report, Nov. 2011. Curriculum Reform: A Progress Report).

In the fall of 2008, the first semester of school-wide implementation, survey results confirmed that most students agreed that they worked harder, learned more, and were more engaged under the new curriculum. Specifically, 77.4% of the respondents
answered “strongly agree” or “agree” that there was “significantly more work”; 21.9% of the students reported having “learned more” and 62% noted their being “more engaged.” Graph 2.0 provides the results of the survey.

The survey was conducted again in the spring of 2009, which marked the second semester of school-wide implementation. Of the 2,600-plus respondents, 77% of the students answered “strongly agree” or “agree” that they had “significantly more work” than before, whereas 67% said that they “learned more,” and 67.7% reported being “more engaged.” Graph 2.1 provides the results the survey.

Faculty Feedback

At the end of the 2008–2009 and the 2009–2010 academic years—after the first and second years of school-wide implementation—feedback was solicited from faculty members regarding how they enhanced their courses, how they thought their students were doing, whether faculty became better teachers as a result of the reform, and how the
reform could be improved. Over fifty percent of the 140-plus full-time faculty responded to the first survey. The faculty members were asked the following questions:

1. Briefly, what enhancement(s) did you incorporate into your courses in 2008–2009?

The survey revealed that most faculty members used mixed methods in enhancing their courses, but relied heavily on Option 1 (*increase course content and/or collateral reading*). Most faculty members combined Option 1 with other options, such as Option 4 (*include higher-level critical thinking exercises*) and Option 3 (*use additional technology*). Some faculty members reported giving students a larger amount of and greater variety of assignments, which included more rigorous reading, writing assignments, and examinations; more research; exercises in critical thinking and analysis; and more frequent meetings with faculty.

Some of the faculty reported using technology to engage students, while others focused on adding experiential learning, cultural experiences, study abroad, service learning activities, and studio time. Some increased the number of required student presentations.

2. How do you think students responded to the enhancements in question and to the reform in general (i.e., quality of the study work, student engagement)?

Faculty members reported that during the first year of the school-wide implementation students had responded fairly well to the course changes and had risen to the challenge of the more rigorous and intensive courses. Many faculty members reported that students were working harder, were more engaged, and learned more than would have been possible under the previous system.

Not all of the comments were positive. Some faculty members reported that many of the students struggled with the extra reading and writing to the point that they failed the courses. Some students were
slow in adapting to the new culture and did not appreciate the changes. They considered the new curriculum as simply more work and expressed resentment. In response, some faculty members thought that they may have over-enhanced their courses and took steps to make readjustments while still complying with SCOR requirements. Other students asked if they could take a three-credit course instead of the four-credit course, noting that they did not need the additional credit hour.

3. What has your own experience been like teaching enhanced courses and teaching within the reconfigured load? Do you think the reform—and focusing on fewer sections and fewer students—has made you a better teacher?

From the teaching perspective, faculty members overwhelmingly reported that the reform had caused them to become better teachers. The reconfiguration of their work load to fewer courses/sections and students meant that they were able to better focus on each student, spend more time with students, and provide them with increased mentoring. They also had more time to provide thoughtful, written feedback to students, both on assignments and exams.

Faculty members also stated that the enhancement program prompted them to update themselves in the content of their disciplines and pedagogy. Many felt that their teaching was re-energized. They explored new textbooks and experimented with different learning styles. The reform encouraged them to be more innovative and find new ways of conducting classes. Overall, the faculty members agreed that they had become better teachers and researchers as a result of the changes. One faculty member called the reform “one of the best decisions the Graver School had ever made.”

On the other hand, some faculty members felt that the challenge of adding enhancements and the imperative to do more were detrimental. Even the most positive faculty members felt stretched by the new model,
citing that it entailed more work. They also granted that the difficulties
may have been due to the newness of the program, which would
improve with time. A small minority of faculty suggested that the
reconfigured load made them worse teachers than before.

4. Based on what you have observed regarding your students’
experience/performance and on your own experience, where might the reform need
improvement?

Many faculty members thought that the reform could be improved
by using a wider variety of menu items to enhance their courses. They
feared that they were relying too much upon assigning more reading and
writing, and that the new model may lose its effectiveness by “piling on”
the work or assigning “busy work.” In general, though, most faculty
members wrote that the reform was on the right path, although it was a
work in progress.

A follow up survey in May of 2010 revealed similar findings. Once again, the
response rate was 50%, and the overall feedback was still positive. Faculty members
reported a growing comfort and acceptance of the reform among the students. Students
were writing better. For the most part, they still felt that the reform had made them better
teachers, and that they were adjusting to the change in work load. Yet some detractors
remained. One lone curmudgeon wanted to revoke the whole idea. (Faculty author of the

**Department Chairs and Faculty Feedback**

In October of 2011, department chairs were asked to provide their own
feedback/impressions and to solicit feedback from their department faculty. In general,
department chairs stated that the reform was having positive impacts. It had allowed
departments to raise expectations in their courses; as a result students were improving
their performances. A higher level of complexity, analysis and research had been added
to the reading and writing assignments. Prior to the reform, students would not have been able to handle such additional demands (Faculty author of the report, Nov. 2011. Curriculum Reform: A Progress Report).

The EU Writing Center also noted a significant increase in students requesting writing support. Since the inception of the new curriculum, the number of writing sessions among Graver School majors increased by 52% (327 in Fall of 2008 to 497 in Fall of 2011), whereas among non–Graver School majors, the number of writing sessions increased by 21% (886 in Fall of 2008 to 1071 in Fall of 2011). Given that participation in these classes is voluntary, it would appear that a culture of writing was arising among Graver students and that they were becoming more self-directed learners.

A minority still expressed concerns. Some faculty stated that the rigors of the reform left little time for research. Still others felt that it had impacted their teaching negatively. However, three years into the new curriculum the majority of the faculty were very supportive of it and would not have wanted to go back to the old model (Faculty author of the report, Nov. 2011. Transformational Curriculum Reform).

Impact of the Reform

From the outset, the goal of the reform was to improve the education of students and invigorate the liberal arts at the Graver School. The reform designers explored the question of whether it accomplished the intended goals or not. In an effort to measure the impact of the reform, they collected data regarding the number of students with Graver majors, total credit hours, the number of sections, student status, grades, retention, and class minutes per credit hour—both pre-reform and post-reform. Some expressed concerns that the reform would result in greater numbers of students placed on academic
probation. Some feared that the more rigorous programs, increased workload, and greater emphasis on research, writing, and work outside of class would drive students away from the Graver School. The quantitative data did not support these concerns, and the Graver researchers concluded that students were not shying away from challenging programs (Faculty author of the report, Nov. 2011. Transformational Curriculum Reform).

Data showed that the number of students majoring in Graver School programs increased from 1,950 to 2,334, a 19.7% increase from the fall of 2006 (before the reform) to the fall of 2011 (after the reform). During the same period, the number of students in major programs across the university grew by only 16.2%. The significant increase in students majoring at the Graver School may have been due to the additional mentoring and time that the faculty members were able to spend with students. Students might also have been attracted to the Graver School’s majors because of the new curriculum, the depth and quality of its programs, and the nontraditional engagement with the subject matter that it offered. Furthermore, five of EU’s 10 undergraduate programs that experienced the greatest growth in the university from 2008 – 2011 were housed in the Graver School.

The number of Graver undergraduate credit hours remained relatively constant in proportion to the number of university-wide undergraduate credit hours despite the fewer General Education credit hours that students were required to take under the new model. In 2005–2006, Graver students completed 44.3% of the total undergraduate credit hours conducted at EU, compared to 43.7% in 2010-2011 (Faculty author of the report, Nov. 2011. Transformational Curriculum Reform).
Rates for full-time students being placed on academic probation for the first time decreased significantly, from 22.5% in 2005 to 14% in 2010. Similarly, improvements were seen in the percentage of first-time students who were placed on suspension. The rate decreased from 0.87% in 2006 to 0.003% in 2010.

Improvements in grades (ABC vs. DFW) were also evidenced. At the Graver School, the percentage of ABC grades increased from 86% in 2006 to 88% in 2010. The grades across the university increased slightly less for the same period, from 87% in 2006 to 88% in 2010. It was also noted that F and W grades had not shown a noticeable change within the Graver School’s DFW distribution (Faculty member, personal communication, January 27, 2015).

One complication of the reform was that it became easier for students to fall below the full-time student threshold. For instance, a full-time student taking 15 credits who was in a predicament and had to drop one four-credit Graver class would lose full-time status. The number of students who maintained full-time status in a given semester did drop from 92.2% in 2005 to 88.4% in 2010, suggesting a negative impact.

Other evidence shows that the Graver School may have become more efficient in its delivery of instruction as a result of the reform. Graver appeared to be delivering more credit hours in fewer course sections and less class time. For instance, in 2006–2007 Graver generated 3,452 credit hours in 1,173 courses; in 2010–2011, it generated 4,047 credit hours in 1,079 sections. Additionally, in 2006–2007 each class required an average of 54.07 minutes of seat time weekly per credit hour; in 2010–2011, only 46.97 minutes were required. Moreover, an examination of those Graver classes which did not require additional seat time for the conversion to four credits (about 80 classes) showed that the
class minutes per credit hour dropped from 50 minutes to 37.5 minutes—approximately 33% (Faculty author of the report, Nov. 2011. Curriculum Reform: A Progress Report).

Taken as a whole, the data presented by the Graver School showed that many of the fears associated with the reform were not borne out, at least initially. Although most of the university’s key success indicators pointed in the right direction, it is difficult to ascertain what changes, if any, were due to the reformed curriculum. To date the Graver School has not confirmed with employers or graduate programs that have admitted Graver graduates to ascertain if they determine positive differences in the students graduating under the new curriculum. More work is needed in this area.

**Lessons Learned**

State SCOR requirements were both a benefit and a detriment. SCOR served as a benefit during the reform by providing specific guidelines on how courses should be enhanced in order to be counted as four-credit courses. According to the Associate Provost, the SCOR guidelines served as a cover against those that wanted to do something different, it provided more structure and the reformers did not have to reinvent the wheel as to what constituted an additional credit hour. Some faculty members appreciated having a structure to follow to insure that courses were being properly enhanced. SCOR regulations minimized confusion and conflicts, but at the same time limited opportunities to be creative. One faculty member stated that having strict guidelines restricted the imagination to envision each course as if it were new.

Furthermore, the SCOR enhancement options applied only to those courses that were originally thought to be three-credit courses and did not help ascertain if the courses may have been offered at a different credit hour level to begin with. In retrospect, a faculty
member indicated that it would have been helpful for Graver to have included such an examination in the reform process. As an alternative to enhancing the courses by one credit hour, the school could have taken the approach of developing every course from ground zero (Faculty member, personal communication, January 27, 2015).

Faculty members need to be provided with opportunities and incentives to develop their skills in implementing alternative enhancements (other than seat time) in order to achieve a diversity of enhancements. They should take care not to rely too much on any one enhancement option. (Faculty member, personal communication, January 28, 2015).

**Final Observations**

The feedback from chairs, faculty, and students from May 2009 to November 2011 indicated that the new model is delivering on the goal of invigorating the liberal arts at EU. The reform has been a challenging journey for both faculty and students, but one that most would agree is providing a better education to all students, according to surveys and observations by the faculty interviewed.

The Graver School claims that the effects of the reform extend beyond the boundaries of the classroom. For instance, reduced time spent in classrooms has promoted Graver’s effectiveness and efficiency efforts as part of a state-wide university initiative. Courses, syllabi, and teaching methods are constantly being enhanced, which has fostered a culture of continuous improvement. Faculty and students are engaging one another in extracurricular activities related to individual courses. The new curriculum is promoting attendance and participation in the campus’ cultural life, lectures, film screenings, arts exhibitions, plays, dance showcases, and musical performances. A
curriculum reform forces faculty to change their course content and pedagogy, without a formal reform process, faculty who have been teaching the same way for twenty years may continue to do it for the next ten years or until they retire. For most faculty members, if they are not going through tenure, they will not make any changes.

A number of administrators feel that the new model is attracting a more diverse and highly qualified pool of applicants for faculty positions at Graver. The reduced course load has attracted faculty candidates who were not only interested in teaching, but also in advancing their areas of study by conducting academic research. An overall higher quality of applicants allows Graver to build stronger programs, according to Mason. He is convinced that the three classes per semester teaching load enabled the university to hire really great people (Administrator, personal communication, January 28, 2015).

If the reform is to be successful, it must be driven by the entire faculty and have faculty “buy-in” Trust is crucial. The reform leaders must have the trust of the faculty, and it helps to be faculty members themselves. Those in charge of the reform need to work with faculty, engage them, listen, and talk about what is satisfying to them. Assurances should be given that faculty can speak without impunity and that jobs will not be lost as result of the reform. After all, faculty members are at the heart of the reform. Through their conviction, passion, goals, and hard work will the vision be realized (Faculty member, personal communication, January 28, 2015).

The Graver School believes that the reformed curriculum is doing what it set out to do. The new curriculum appears to be engaging students and faculty in courses and programs that foster the development of knowledge, research skills, and analytical and
writing skills. These are critical requirements in a knowledge-based economy for students to be successful and achieve their highest potentials.
Brief History and Overview

Abenaki University is rooted in the vision of one Dutch-American cleric. It was founded in 1858 with a $22,000 pledge. The university was originally an institute that would prepare men for missionary work and was situated in a church on the banks of the Abenaki River. Sixty three years later it became Abenaki University. From its humble beginning, the missionary institute grew to be a thriving university in Townville, Pennsylvania (Housley, 2007). Today Abenaki describes itself as a “national liberal arts college committed to excellence in educating undergraduate students for productive, creative and reflective lives of achievement, leadership and service in a diverse and interconnected world.”

Abenaki is the home of two schools: the School of Arts and Sciences and the Albert Connor School of Business. It takes pride in providing a strong liberal arts undergraduate education, with more than 50 majors and 45 minors in the areas of business, education and communications. These programs, majors, and minors are offered to approximately 2,100 undergraduate men and women from 35 states across the United States and 22 countries. (“About Abenaki”, 2014)

Abenaki has a competitive admissions process. Its graduating class of 2018 has a minimum GPA of 3.38 in a college preparatory curriculum, and the middle 50 percent of the class of 2018 has SAT scores between 1040 - 1190 and ACT scores between 22 - 28. Abenaki focuses on excellence in education and is guided by its mission. The university is accredited by the Middle States Commission on Higher Education (“Abenaki Profile,” 2014).
Impetus for Curriculum Reform

Change is not a novelty at Abenaki University. Since its beginning, Abenaki has adapted to meet the social and economic needs of the time. By 1895, it converted to a university serving both men and women. By 1933, it transformed itself into a liberal arts university. Not only did Abenaki change its scope, it also changed its purpose.

Throughout the time span of 1858-2000, it had four different (albeit related) purposes: to educate poor men for gospel ministry free of charge, to impart Christian character to successive generations of young people, to serve the community, and to educate youth in normative ways, using the standards of higher education as a measure. (Housley, 2007).

Once again, in 2001, Abenaki University was called to the challenge of reform in order to meet modern needs. Its newly hired president engaged the university in preparing an accreditation self-study for the Middle States Commission on Higher Education. Concurrently, the new president also engaged the university in developing a five-year strategic plan, so that the processes and information could be integrated. The strategic plan aimed at securing the university’s standing as a national model for exemplary undergraduate education, which became one of the impetuses for reforming the curriculum. (“Strategic Plan 2003-2008”, 2003)

Several other factors drove the curriculum reform at Abenaki. A major impetus for reform was the request that the university received from the Middle States Commission on Higher Education that Abenaki establish a university-wide assessment program, which was absent at the university at that time. The need to establish an assessment program led to the development of university-wide learning outcomes, which
influence the changes in the core curriculum (Faculty Senate Chair, personal communication, October 1, 2014).

At that time there had also been a generational change in the faculty. Approximately 50% of the faculty members were new, and cynicism and dissatisfaction with the existing core curriculum had set in. The core curriculum had been in place for approximately 20 years and had been allowed to “drift,” becoming a distributed curriculum without any structure. One faculty member commented that anyone could teach any course in any way that they chose. Many of the new faculty members had an appetite to develop their own curriculum. A year earlier, an attempt to reform the curriculum had failed due to a lack of university-wide faculty participation. The reform simply did not gain great acceptance by the faculty and lost momentum. The new generation of faculty was still seeking a curriculum that they could call their own.

Another catalyst for the reform was the results of the recent National Survey of Student Engagement report, which indicated that first-year student coursework lacked engagement and that senior year student coursework lacked rigor. Having enjoyed increased enrollment in prior years, the university was in an excellent financial position to embark upon a reform. The time was right. (Provost, personal communication, October 1, 2014)

**Reform Journey**

The reform journey at Abenaki encompassed four basic steps. 1) Establish a set of university learning goals. 2) Develop a new core Central Curriculum. 3) Modify courses to support the new Central Curriculum learning goals. 4) Establish an assessment program.
In the summer of 2004, the university embarked on a five-year journey that resulted in the redesign and implementation of a new curriculum. In response to the Middle States Commission on Higher Education’s recommendation, The Abenaki Provost invited four faculty members to join her at a workshop on general education and assessment offered by the American Association of Colleges and Universities (AAC&U) in Newport, Rhode Island. The participating faculty members included the Chair of the Faculty Senate, a Professor of Biology, an Associate Professor Political Science, and an Associate Professor of Math and Computer Science. (Faculty member, Personal communication, September 30, 2014)

Inspired by Carol Geary Schneider (the president of AAC&U) and the National Reform Movement on General Education presented at the AAC&U conference, the provost and the four faculty members devised a plan to engage the entire university in developing a curriculum that faculty members could call their own, would raise the standing of the university as a national model of education, and that would also result in the establishing an assessment program. (Faculty Senate chair, personal communication, October 1, 2014).

At the time of inception, the provost did not have a grand vision, a plan for the curriculum, or preconceptions as to what the learning goals or the curriculum should be. Nor was she planning to influence the faculty in creating the final curriculum; she thought that this was the job of the faculty. Although one of the deans insisted that the faculty should be instructed on how to design the curriculum, the provost did not yield. She put her trust in the faculty to develop an effective, traditional, liberal arts curriculum, and she maintained the position that the curriculum was the domain of the faculty. She
declined to show or tell the faculty what was wrong with the curriculum. From the beginning, the provost focused on managing the process, not the product. She stated that an administrator who rises through the ranks of faculty often forgets his or her new role, and when it comes to curriculum reform, the administrator wants to go back to thinking like a faculty member and “place their horse in the race.” She purposely refrained from doing so. The Abenaki president had a similar perspective; he stayed informed about the process, but did not participate in the decision making. He left that to the faculty. (Provost, personal communication, October 1, 2014).

At Abenaki, the reform process was guided by a series of questions. The provost’s approach to reform was to first address the broadest questions and subsequently address the more specific questions, until all of the work was completed. Consensus would first have to be reached on the major ideas that formed the basis for the specific university-wide learning goals. Once the university learning goals were established, those goals would drive the development of the core curriculum and the establishment of the core curriculum courses. McMillan was concerned that starting the entire process with the redesign of existing courses would fail because the faculty could resent the interference, the implication that something was wrong with their existing courses, and refuse to support the reform movement. Her plan was to engage the entire Abenaki University community—faculty, staff, administration, board members, students, alumni, employers, and other stakeholders—in the process. If the process were to be successful, every voice had to be heard. (Provost, personal communication, October 1, 2014).

Enter the “Sticky Grad.” As was typical, the university had its annual all-university workshop at the start of the fall 2004 semester. It was here that the provost and
her faculty allies initiated the curriculum reform. Full-sized cutouts of a male and a female graduate were displayed at the front of the room. The attendees were given sticky notes and asked to write down a key (not necessarily the most important) attribute that every graduate should have when he or she walks across the stage after having obtained an Abenaki University education. One by one, the participants approached the cutouts and affixed their attributes until the cutouts were covered with colorful sticky notes. This populist approach resulted in an actual mosaic of proposed graduate attributes, such as creative art appreciation, scientific thinking, diversity, and ethics. This exercise came to be known as the “Sticky Grad.” (Faculty members, personal communications, September 30, 2014)

The attendees spent the rest of the morning sorting the suggestions into themes and prioritizing them. That afternoon the faculty broke into smaller groups, led by the speaker of the faculty. With the participation of the faculty, the speaker distilled the attributes into statements that were specific enough to define an Abenaki graduate, but broad enough for everyone to agree upon. Similar “Sticky Grad” exercises were held with board members, students, employers, and other stakeholder groups. In this manner, Abenaki was able to generate broad themes that laid the foundation for what eventually became the new university learning goals.

The next step was to refine the broad themes into learning goals. This task was given to the university’s Curriculum Committee, which at the time was chaired by a faculty member with strong credibility with the other faculty members and who was well liked and respected. An attendee of the recent AAC&U workshop on learning assessment, the provost gained high regards for her excellent job of articulating the
reform of the curriculum. She herself stated that all she did was facilitate the process, making sure that every voice was heard and considered. She strove to keep the process moving without telling the faculty what to do. At that time, she was also a professor of Biology, and limited her personal involvement to addressing only those questions regarding the sciences. (Faculty member, personal communication, October 1, 2014)

The Curriculum Committee chair and the rest of the Curriculum Committee organized working groups to focus on specific learning goals. Over a period of nearly a year, the working groups convened a number of open meetings during which members of the university community were invited to provide feedback on the learning goals. After the learning goals were refined, the Curriculum Committee presented its results to the full faculty for further discussion and approval. The learning goals were also brought to the Student Government Association for approval (Faculty member, personal communication, October 1, 2014).

After several rounds of deliberation by the full faculty, all of the university learning goals were approved on the first vote. However, the learning goals were not approved without resistance. Some faculty members were hesitant about changing the curriculum, especially those who were involved in the creation of the prior core curriculum. Others were adamantly against the reform. They thought that the core curriculum was great and did not need to be reformed, questioning whether the curriculum was being changed merely for the sake of change. At one meeting a senior faculty professor of Biology spoke very passionately about how Abenaki should not allow its vision, goals, and curriculum to “drift with the times.”
For the most part, the learning goals were developed from internal ideas on what a graduate should know. To a lesser extent, other resources were used. Information from the AAC&U, the National Survey of Student Engagement, research such as *College Learning for the New Global Century* (the report from the National Leadership Council guiding the LEAP initiative), and samples of curricula from other schools were also considered. In addition, information was obtained from employers on what they required of graduates. Through this process, it was possible to articulate the hallmarks of a liberal arts education, examine principles of excellence, review learning outcomes identified by employers and other colleges, and confirm the general education proficiencies and essential skills. (Provost, personal communication, October 1, 2014)

It is worth noting that the use of technology, new developments in pedagogy, and the manner in which students learn were not of major concern. The primary goal was not to use a compilation of external ideas on what others thought were good learning goals or curricula, but to develop learning goals and a curriculum that were organic and representative of the Abenaki faculty and tradition.

Once the university learning goals were adopted, the next question became: *does the existing core curriculum support the new university learning goals?* In keeping with her plan of not questioning the integrity or quality of the existing curriculum, the provost merely posed the question. The Curriculum Committee spent almost a year assessing the core curriculum to determine how it was or was not impacting the students, and how it was supporting the new university learning goals. After much scrutiny, the Curriculum Committee determined that the university learning goals and the core curriculum were not aligned. The committee identified major gaps where the core curriculum did not
support the learning objectives. The next question posed by the provost then was: *is there a better core curriculum that can best meet the university learning goals?* (Provost, personal communication, October 1, 2014)

Seeking to answer that question, the provost convened the Curriculum Committee and ten faculty members in a summer summit in 2005. The purpose was to discern and develop a new core curriculum that would better support the new university learning goals. The approach again was to start very broad, and “drill down” to develop the core curriculum. The appointees spent the summer meticulously assembling a new core curriculum, paying attention to every word. By the end of the summer, the new core curriculum had taken shape. The faculty voted and approved the new core curriculum, which became known as the Central Curriculum. (Provost, personal communication, October 1, 2014)

The following summer, the provost invited the faculty to develop learning goals for the Central Curriculum. By this time faculty had raised concerns about having to work through the summer without pay. The provost incentivized the faculty by providing them with a modest stipend and a lunch, resulting in an attendance rate of approximately 80 per cent. The participants took part in one or more small groups, writing the learning goals for the Central Curriculum. By the end of the summer, all of the learning goals for the Central Curriculum were compiled and approved.

Following the approval of the learning goals of the Central Curriculum, the provost once again posed a question: *do any of the core courses meet the learning goals of the Central Curriculum?* She also declared that every course that was intended to count as a Central Curriculum course had to be re-approved by the Curriculum
Committee. Basically, all of the Central Curriculum courses had to pass muster—nothing was “grandfathered.” This meant that every course had to be re-submitted with a new syllabus that had course learning goals that met the learning goals of the Central Curriculum. Courses not submitted for approved would not be permitted to be taught as part of the requirements of the Central Curriculum.

The faculty realized the amount of effort entailed in re-submitting their courses. Many felt hoodwinked, but there was no going back at that point—they had already approved the new Central Curriculum. Departments were also requested to re-examine their major/minor requirements in light of the Central Curriculum. A department had the option to not submit any of its courses for Central Curriculum approval, but as a result it may not attract students for its majors, which meant that the department may eventually lose faculty salary lines. An extensive amount of work loomed ahead.

Understandably, many departmental faculty members were unhappy about having to redesign their courses and majors. The Sociology and Anthropology Department did not think that the learning objectives were robust or diverse enough, but after learning that it might lose faculty lines, it soon re-designed its Central Curriculum courses and re-submitted them for approval. Eventually all departments acquiesced. (Provost, personal communication, October 1, 2014)

The next phase of the journey was the widespread effort to adapt every general education course to fulfill the learning goals of the Central Curriculum. At the same time, recognizing the volume of work involved in reviewing every course syllabi, the Committee on Central Curriculum was established and charged with this task. Faculty members labored to modify their courses in support of the Central Curriculum and
resubmit them for approval. Concurrently, each of the departments worked to modify the courses in their majors and minors so that they would comply with the university learning goals, meet the Central Curriculum learning goals, and count as part of the Central Curriculum. This phase took almost three years to complete. By the fall of 2009, over 400 courses had been approved, and the new curriculum was ready to be launched. (Faculty members, personal communications, September 30, 2014),

The final phase of Abenaki’s reform journey entailed developing an assessment system. The university drew up a multi-dimensional appraisal system whereby all curricular and co-curricular activities are assessed on a systematic basis. Abenaki also followed up the reform with surveys. The provost believes that, in essence, reform never ends. The university learning objectives and the Central Curriculum courses are constantly being “tweaked.” In fact, a culture of assessment has been instilled at Abenaki University.

Reform Changes

Prior to the reform, an Abenaki education consisted of three major elements: the Core Curriculum, major/minor programs, and electives. The Core Curriculum required students to take 44 semester credit hours in three major areas: 1) Personal Development, 2) Intellectual Skills, and 3) Perspectives of the World. The number of credit hours required to graduate were 130.

As a result of the reform, Abenaki established university learning objectives, created a new core curriculum (now called the Central Curriculum), modified the Central Curriculum courses, and established an assessment program. Each of these components
were developed and implemented at different levels. Accordingly, changes were made at each level.

The university learning goals were first established in order to guide all learning activities on campus. According to these goals, a Abenaki graduate would possess: 1) an awareness of creative, natural, societal and cultural forces that shape the world around them; 2) an integrated set of intellectual skills; 3) a mature understanding of self—mind, body and spirit; and 4) an integrated sense of personal ethical responsibility. (Faculty members, personal communications, September 30, 2014)

The new Central Curriculum was then developed to serve as a road map for achieving the university learning goals. Under the new structure, an Abenaki education consisted of the Central Curriculum courses, major/minor courses and electives. The new Central Curriculum consisted of three main components. 1) A traditional liberal arts component (which included the distribution requirements that provided an expected breadth of education typical of a liberal arts college) required that every student take history, science, social science and other such liberal arts courses. 2) A skill-based component required that every student take a series of writing intensive, team intensive and oral intensive courses. This component would to allow students to further develop valuable skills for both college and employment. 3) A study-away component--The GO Program--required every student to participate in an off-campus, cross cultural experience, followed up by an on-campus reflective course.

Each of these three components was further divided into individual areas. The first component (i.e., Strong Liberal Arts Foundation) included: Human Interactions, Natural World, and Richness of Thought. The second component (i.e., Skills Intensive)
included Intellectual Skills. The third component (i.e., GO Cross Cultural) encompassed the Connections area. Each of the areas served to address specific university learning goals. Students were required to take a prescribed amount of credits within each area, which are depicted in Graph 3.0.

Each of the Central Curriculum requirements may be fulfilled by a variety of courses. A single course, whether an elective or major course, may fulfill up to three Central Curriculum requirements. For instance, *Biology 020* fulfills the Diversity

![Graph 3.0: Abenaki University Central Curriculum Components and Areas](image)

- **INTELLECTUAL SKILLS** (12 C.H.)
  - Perspectives
  - Writing and Thinking
  - Writing Intensive Courses
  - Oral Intensive Courses
  - Team Intensive Courses

- **HUMAN INTERACTIONS** (16-28 C.H.)
  - Social Interactions
  - Historical Perspectives
  - Ethics
  - Foreign Languages
  - Ethics Intensive

- **NATURAL WORLD** (4 C.H.)
  - Scientific Explanations

- **RICHNESS OF THOUGHT** (12 C.H.)
  - Analytical Thought
  - Literacy Expression
  - Artistic Expression

- **CONNECTIONS** (10 C.H.)
  - Diversity
  - Cross Cultural Reflection
  - Diversity Intensive Courses
Intensive, Interdisciplinary and Scientific Explanations requirements of the Central Curriculum; *Art History 211* fulfills the Artistic Expression and Diversity requirements of the Central Curriculum. An array of options exists when planning courses. This flexibility has resulted in students being able to take many of their Central Curriculum requirements within their majors. However, one could argue that doing so also poses a disadvantage in that students may not obtain the intended benefit of a wide-breadth liberal arts education.

To date, over 475 courses can be used to fulfill the Central Curriculum requirements (2014-2015 University Catalog).

The flexibility of students being able to fulfill the Central Curriculum requirements in multiple ways complicated the planning and tracking of student’s progress towards graduation. In response, the university developed an online audit function for students, faculty, and advisors to track students’ progress at a glance and manage the complexities of the curriculum. (Faculty member, personal communication, October 1, 2014). The Central Curriculum is more extensive and requires more credit hours than the previous core curriculum, but it is not more rigorous or structured. The Central Curriculum now encompasses 68 to 80 credit hours, instead of the prior 44, of the 130 credit hours required to graduate. The total number of credit hours required to graduate did not change, only the distribution of the credit hours. There are now more credit hours that are part of the Central Curriculum requirement, but these hours can be fulfilled within one’s major. The Central Curriculum in general does not have pre-requisites or sequence requirements (except for foreign languages). It is flexible. There are multiple means of fulfilling the requirements, which can be completed in almost any progression and with different types of courses. For instance, students can take *History*
During the establishment of the new curriculum, discussion took place regarding whether disciplinary courses should be taken before or after interdisciplinary courses. Some faculty thought that students should be required to take disciplinary courses first, since interdisciplinary courses were thought to require more sophisticated intellectual analysis skills. The final outcome was that interdisciplinary courses would be reserved for sophomores, juniors, and seniors.

The new Central Curriculum also included a requirement that all students participate in a cross-cultural Global Opportunities (GO) Program experience. This unique program won the 2013 Andrew Heiskell Award for Internationalizing the Campus. The purpose of the GO Program was to expose students to cultures different from their own so they might learn firsthand about diversity. At inception, the program consisted of two phases. The first phase involved students traveling off-campus for two or more weeks, with or without credit, to be immersed in a culture other than their own. The second phase of the program required students to complete a two-credit hour reflection course. (Central Curriculum Handbook, 2014, August)

Students have three options for meeting the off-campus portion of the GO requirement: GO Long, GO Short, or GO Your Own Way. The GO Long option is a semester-long or year-long study-away program. Students receive diverse curricular foci, world language instruction, involvement in extracurricular activities, familiarization with different academic settings, and accommodations. This may include studying in Gambia,
Cyprus, Macau, Japan, the United Kingdom, or other locations around the globe. The GO Short programs are two to six weeks in duration and take place either over summer or winter break. These are led by faculty and staff. GO Short students may study in New Orleans, Italy, Austria, the United Kingdom, and other locations. Students may also design their own study away experience under the GO Your Own Way Program. In this program, students are required to immerse themselves for a minimum of two weeks in a cultural setting different from their own. The setting can be in the U.S. or a foreign country. Regardless of which option students choose, they are required to complete the two-credit hour reflection course upon return.

Students at Abenaki University are not required to pay any additional tuition in order to participate in the GO Program, and all financial aid is applicable with the exception of work study. For reasons not clarified, the GO Program was designed without consideration of its impact on the finances of the university. The Dean of the School of Arts and Sciences and Associate Professor of Music at the time of the reform, recalled, “When the time came to figure out how to pay for GO, it was some struggle…I just remember the C.F.O. going, ‘Why didn’t anybody come talk to us about the financial impact of this part of the curriculum?’” She credits the administration with finding solutions while still giving the curriculum planners the freedom to think creatively. “There were no kinds of parameters, financial or otherwise, laid out at the beginning that we had to adhere to. We could go where we wanted to go and where we needed to go.” (Faculty member, personal communication, September 30, 2014)

Many would argue that the redesign of the curriculum did not result in significant course changes. After all, one introductory Spanish language class differs little from
another introductory Spanish language class in terms of content. Students still take history, science, math, social science, and other courses as they would at any liberal arts school. According to the provost, the real gain came because the faculty had to think about the course learning objectives and how their courses were going to meet them. The new learning objectives opened up conversations between faculty on how to best meet the course learning objectives and if students were actually accomplishing those objectives. The conversations did not necessarily center on course content. (Provost, personal communication, October 1, 2014)

Assessment

The initial intent of Abenaki University and the Middle States Commission on Higher Education was to establish a learning assessment system in which all of the faculty would participate. As part of the curriculum reform, Abenaki developed an assessment program for its learning goals-driven Central Curriculum, which is overseen by the Committee on the Central Curriculum. Although participation in this assessment program is voluntary, the majority of the faculty members do participate. (Abenaki internal, unpublished Self Study, 2014)

In an effort to encourage this participation, the university separated the evaluation of the faculty from the curriculum assessment program. There are no personal disadvantages to faculty if the curriculum assessments are not favorable. Furthermore, the individual course assessments are not directly associated with specific faculty. Instead, results are reported in general terms. The provost believes that this is a healthy separation and is helpful in implementing an assessment program. (Provost, personal communication, October 1, 2014)
According to the Faculty Senate Chair, one of the most important outcomes for the establishment of the assessment program was that the assessment created another venue for faculty to come together to discuss the learning goals and have continued conversations about teaching and learning. Not everyone enjoys participating in assessment. Because participation is voluntary, these discussions offered a positive incentive for cooperating with the assessment. (Faculty Senate Chair, personal communication, October 1, 2014).

An initial Central Curriculum assessment program was instituted in 2009 to evaluate the university learning goals and determine if these goals were being met. It called for each of the areas in the Central Curriculum to be assessed every five years. In 2012, as part of Abenaki’s continuous improvement efforts, a different assessment model was adopted. This model required that each of the Central Curriculum areas be assessed on a rotating basis biennially. As a result, all of the Central Curriculum areas will be assessed within a two-year cycle. This is the assessment practice in place today. (Abenaki internal, unpublished Self Study, 2014)

At the beginning of each academic year, the Committee on the Central Curriculum hosts workshops in which the faculty members who teach Central Curriculum courses from each area being assessed plan their assessment efforts for the year. At the end of the year, the Central Curriculum Committee convenes a group of volunteer faculty who teach in the areas being assessed. These faculty members submit approximately 20% of the student work from the areas being assessed that year, develop a common rubric, and independently assess the students’ work to determine if the applicable learning goal has been met. The faculty members provide feedback on the
students’ work to the Committee on the Central Curriculum, and make suggestions for improving the assessment process. Findings are not reported to the individual teachers, but to *all* the faculty teaching in those areas. (Abenaki internal, unpublished Self Study, 2014).

Course syllabi are also reviewed in the same cycle as the Central Curriculum areas by the Committee on the Central Curriculum. The university requires that all of the course syllabi include learning goals in support of the university learning goals, and that measurement of student learning outcomes are embedded in assignments and testing.

According to the most recent assessment results available, Abenaki University reports that overall it is meeting its General Curriculum learning goals. Table 3.0 and Table 3.1 provide summaries of the results for the areas of the Central Curriculum that were assessed in Academic Years 2011-12 and 2012-13. (Note that in some areas the information was inconclusive or still being processed.)
Table 3.0
Central Curriculum Assessment Summary
Academic Year 2011-12

<table>
<thead>
<tr>
<th>Central Curriculum Area Assessed</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical Thought</td>
<td>81% of student samples received a mark at or above the &quot;acceptable&quot; mark (Learning Goal 1).</td>
</tr>
<tr>
<td>Diversity</td>
<td>Assessment results were inconclusive.</td>
</tr>
<tr>
<td>Diversity Intensive</td>
<td>Average achievement of students for Learning Goal 2 was 3.8 out of 5.</td>
</tr>
<tr>
<td>Social Interactions</td>
<td>Over 75% of students sampled achieved Learning Goal 2 at the basic level or better, and over 80% achieved Learning Goal 3 at the basic level or better.</td>
</tr>
</tbody>
</table>

Table 3.1
Central Curriculum Assessment Summary
Academic Year 2012-13

<table>
<thead>
<tr>
<th>Central Curriculum Area Assessed</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural World</td>
<td>Sampled students achieved an average score of 6.1 on a 9-point scale (Learning Goal 6).</td>
</tr>
<tr>
<td>Perspectives</td>
<td>67% of students effectively listed and described factors linked to academic success (Learning Goal 2).</td>
</tr>
<tr>
<td>Team Intensive</td>
<td>Students’ assessment of teammates showed positive working relationships with team members (Learning Goal 1).</td>
</tr>
<tr>
<td>Oral Intensive</td>
<td>Low participation; unable to draw any conclusions.</td>
</tr>
<tr>
<td>Literary Expression</td>
<td>Students achieved a 75% pass rate, with an average score of 3.3 on a 5.0-point scale for Learning Goal 5.</td>
</tr>
<tr>
<td>Historical Perspective</td>
<td>Student performance on Learning Goal 1 was in the &quot;optimal&quot; range, with average scores above the target score.</td>
</tr>
<tr>
<td>Artistic Expression</td>
<td>Collected samples are currently being evaluated.</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>Over 90% of students sampled successfully met Learning Goal 2.</td>
</tr>
</tbody>
</table>

Abenaki University followed up this appraisal with a faculty survey in 2013 as part of a self-study for re-accreditation by the Middle States Commission on Higher
Education. Results showed that 83.5% of the faculty agreed that the current assessment methods provide evidence that the students are achieving departmental goals, and over 50% of the faculty agreed that the current assessment methods provide evidence that students are achieving the Central Curriculum and university learning goals. The Middle States Commission on Higher Education commended Abenaki for having developed an exemplary assessment program during its most recent accreditation visit in 2015. (Abenaki internal, unpublished Self Study, 2014).

In an additional effort to assess student outcomes, the provost assembled a Taskforce on Assessment. Throughout 2005 and 2006, the taskforce designed a matrix intended to assess the planning of academic programs. The matrix took root, and by 2009 it was expanded to include planning and reporting. Now nearly all of the faculty members are using this matrix in their annual reporting to the provost. (Abenaki internal, unpublished Self Study, 2014).

**Outcomes**

According to the provost, the reform was of major value to the faculty because they were able to create their own curriculum. The provost believed that every generation of faculty needs to own its curriculum and understand why they are teaching what they are teaching. The discussions that took place as to why it was necessary that students take the classes that they were taking were particularly helpful.

Although there were no significant changes in the number, type or rigor of courses that students take, the university has noted changes in its students’ perspectives on diversity and maturity, the alignment of its courses with learning objectives, and the alignment of the Central Curriculum with the skills that employers need. The university
also experienced changes in its instructional expenses, retention, and the effectiveness of assessment

**Impact on Students**

As noted above, in many ways the curriculum changes did not impact the students a great deal. According to the Faculty Senate Chair, students were “taking a smattering of courses” before and they are “taking a smattering of courses” afterwards. Students were required to complete 130 credit hours to graduate previously and they are required to take 130 credit hours to graduate now. Previously students had a menu of courses from which to choose, and today they have a menu of courses from which to choose. What is different is that the exploration of new subject areas is somewhat more defined. “I believe that we’ve (the faculty) changed perhaps more than they (the students) have,” said Faculty Senate Chair. The biggest gain is probably that the new generation of faculty now owns its curriculum. (Provost, personal communication, October 1, 2014).

What the new curriculum did appear to have accomplished is to align the Central Curriculum learning objectives with the skills required by employers. As part of a 2014 self-study report submitted to the Middle States Commission on Higher Education for re-accreditation, the university administered a survey to both students and faculty to determine if they believed that the Central Curriculum was providing the skills needed in the employment marketplace, as framed by the AAC&U’s 2007 report, *College Learning for the New Global Century*. The AAC&U published those skills that employers seek in college graduates, namely: the ability to work well in teams, especially with people different from them; the ability to write and speak well; the ability to think clearly about and solve complex problems; an understating of the global context in which work is now
done; and a strong sense of ethics and integrity. (Faculty Member, personal communication, September 30, 2014). (Abenaki internal, unpublished Self Study, 2014).

The survey results showed that 69% to 79.3% (depending on the particular skill being measured) of the students agreed or strongly agreed that the Central Curriculum helps them to develop those skills needed by employers. Faculty members were not as optimistic. Only 55.9% to 68.5% (depending on the particular skill being measured) of the faculty agreed or strongly agreed that the Central Curriculum helps students develop those skills needed by employers. Graph 3.1 provides a summary of the results.
A major effect that the Central Curriculum is having on students occurred as a result of the GO Program. Faculty members reported that students are more mature and have different perspectives upon returning from participation in the Go Programs. This program is also changing the relationship between faculty and students. Faculty members state that the program has enhanced their engagement with students, making them more mindful of students’ progress in their personal, academic, and professional development. Faculty members have more personal relationships with students in academic matters. They reported modifying their teaching styles as they seek to adapt to the various learning styles of their students. According to many faculty members, the diversity perspective of students has clearly improved. Students are far more aware of diversity issues on many levels, are more accepting of differences, and engage more in conversations about differences in culture and ethics. Moreover, this awareness is enhanced because students take other courses in which they are introduced to diversity as part of the Central Curriculum requirements. The Go Program, according to everyone consulted, has been a success. There is a buzz from students upon the return for their GO experience. (Faculty member, Personal Communication, September 30, 2014)

Another noticeable change in the students is their retention, as Graph 3.2 shows. Retention declined from 86.5% in 2008 (the year prior to the implementation of the new curriculum) to 83.3% in 2009. From 2009 to 2012, retention has averaged approximately 83.5%. This is still high in comparison to approximately 78%, the national average for institutions granting Baccalaureate degrees in Art and Science. However, at this time it is unknown what may have been contributing to the decline in retention at Abenaki.
Impact on Faculty

As a result of the assessment, faculty members have had to make well-thought-out adjustments to their courses. Moreover, the reform transformed how faculty members think about their classes. One faculty member reported changing the manner in which she teaches her classes in terms of which items, issues, and ideas she emphasizes because of her awareness of the learning goals. The learning goals have given faculty members a common language to use in teaching and talking about what transpires in the classroom. Now they talk in terms of what students learned vs. what was covered in class. (Faculty member, Personal Communication, September 30, 2104)

Impact on the University

The new curriculum appeared to have impacted the university negatively by one measure: the ratio of instructional expenses per student to institutional costs per student. In the year prior to implementing the new curriculum, Abenaki University’s ratio was
1.95. Thereafter the ratio has been steadily increasing, a total of 18.5% between 2008 and 2013. This might be due to the expenses associated with the GO Program, which is required of all Abenaki students and an additional 13 faculty hired as part of the new curriculum. Graph 3.3 provides a summary of the ratios between the years 2005 and 2013.

Lessons Learned

The reform at Abenaki University was long, complex, and laborious. It required patience, determination, and the proper balance of administration and faculty leadership. The faculty and administration at Abenaki reported learning the following lessons.

It is essential for all faculty members to be involved in the process; every voice must be heard and considered. Not involving the entire faculty in the decision making process may result in an unsuccessful reform.
The university learning objectives must be applicable to curricular, co-curricular and support activities. During the development of the assessment program, it was realized that even support functions and other activities outside of the classroom impacted the development of the attributes desired in an Abenaki graduate. Those other factors (e.g., the business office services, student activities, and the health center) do affect student outcomes, although not necessarily in a direct learning or instructional mode. This has prompted a review of how support functions and other activities can be assessed.

Financial modeling should be performed on the new curriculum as it is being developed. Failure to do proper modeling may result in a curriculum that is cost prohibitive.

A potential downside of allowing major courses to count towards General Curriculum credits is that students may fulfill too many of their core requirements with major courses. This could result in students graduating without broad educations.

Trust is paramount between faculty and faculty, and between faculty and administration. A faculty leader(s) who is credible and trusted by faculty is required.

Separating the assessment of the learning objectives from the evaluation of faculty helped in implementing an assessment program. Some faculty like assessment and participate, whereas others believe that it is a waste of time. Incentives to participate need to be built into an assessment program in order to be successful. The assessment process provided an opportunity for faculty to engage in conversations about what is working and what is not working.
Final Observations

The reformers at Abenaki appear to have achieved a couple of the goals that they set out to achieve. In accordance with the recommendation of the Middle States Commission on Higher Education, a university-wide assessment program has now been established as part of the curriculum reform effort. Faculty members have a curriculum they can embrace as their own. Has Abenaki become a national model for exemplary undergraduate education? This remains to be seen. If the innovative GO Program is any indication, the university may be well on its way towards fulfilling this very ambitious goal.
Anyone thinking about reforming a curriculum should carefully consider what to expect. The work embarked upon by the faculties at Graver and Abenaki provides a gestalt of how these two universities went about reforming their curricula and the outcomes they achieved. An analysis of the two case studies suggests that reforming the curriculum could be effective in improving undergraduate education, if performed with the students in mind and improving the performance of higher education. The actual outcomes are dependent upon numerous variables: the ideologies and preferences of the faculty members (to a large extent), the leadership, the process used, the ability to innovate and entrepreneurship of faculty members, and the goals and history of the university—to name only a few. Presidents, faculties, administrators, students, and other interested stakeholders could benefit from the experiences of universities that have traveled the journey of reform.

A university president intending to improve undergraduate education through curriculum reform could find much in these case studies to consider. A visionary leader appears to have been most effective in fostering and promoting reform. Because faculties are the main drivers of curriculum reform, the role of the president and administrators should be one of setting a vision and providing support. Basically, they stand on the sidelines, facilitate the process, and provide the resources for the faculty to do their jobs. Perhaps the most useful concepts a president could take away from this research center on how to light the fire of reform, insure that every voice is heard, and keep the momentum going to see a reform through from start to finish. The case studies suggest that by imparting a vision, establishing an environment of trust, collaborating, and
engaging faculty and faculty leaders, a president can successfully motivate the faculty to reform the curriculum.

To ignite the reform fire, a president needs to inspire and engage the faculty by offering something that faculty find desirable and want to attain. The road to reform is laborious, complicated, often contentious, and, at times, may result in personal losses for faculty. Much is at stake—a course that a faculty member enjoys teaching; jobs (one’s own or a friend’s); department majors, and funding; even the reputation and status of the entire organization, not to mention increased accountability, responsibility, work and perhaps having to be more productive. Any of these consequences can be a basis for faculty to refuse to support a reform. One of the reasons that the full faculty of AU voted down the original reform proposal was that the School of Education recently underwent reaccreditation and would have had to undergo the same process all over again under the four credit model. For these faculties, there was no incentive for reform, only more work. To be successful, the reform must be centered on students and improving the performance of higher education, and not on fulfilling the personal goals of the actors in higher education: faculty, or administrators.

A logical impetus for reform would be the creation of a learning and student-centric environment that would improve the efficiency, effectiveness and productivity of higher education. Another impetus would be creating an environment that will improve the effectiveness of higher education in meeting its social responsibilities, e.g., making higher education more affordable, improving student completion time, graduation rates, student’s competencies, and making students better and more productive citizens. This goal is often cited by researchers and certainly worthy of consideration. But the actual
aims of the reforms at Graver and Abenaki varied and did not necessarily focus on solving the social issues so often referred to in the literature. Since no university exists in a vacuum, a president may want to ask how reform at his or her university could contribute to improving higher education and alleviating societal ills. The president should consider focusing on solving the issues in higher education instead of fulfilling personal interests. In addition, a president would need to encourage faculty members to expand their identities and view themselves as part of the solution to the many issues impacting higher education.

The faculties interviewed at both Graver and Abenaki claimed to be earnestly devoted to student success. In practice, however, it appears that student success alone may not be sufficient to entice faculties to embark on the reform process. In truth, there will always be those faculty members resistant to change, or that simply will only join in the reform if their own best interests are served, e.g., to protect their courses, their programs, their research, their ideology, or the courses and programs of their friends—or who are simply unwilling to change and just wait for retirement. A president and the reform leaders should be well prepared to address the reform critics.

A president would want to consider providing faculty with the proper resources to make a comprehensive review of all aspects impacting student learning before embarking upon a reform. The development of a plan or a process for developing the curriculum was not something that was pre-developed by any of the universities study, nor did any university studied conduct a comprehensive review of the literature on improving learning or established specific goals to be accomplished. A wealth of information exists in subjects such as best practices, integrating technology into the teaching and learning
process, learning theory, curriculum design, learning competencies, and new pedagogy, to name a few. A president also needs to provide the resources necessary to carry out appropriate modeling (financial, improving of time to completion, facilities and other resources utilization, graduation rates and assessment) to avoid the typical pitfalls that institutions encounter as they are reforming their curricula.

The research shows that faculty members are motivated to reform their curriculum for various reasons. At Graver, the faculties’ primary motivator may have been the possibility of reducing their teaching load and giving themselves time to do research. This, coupled with the promise that no jobs would be lost, provided the environment for change. At Abenaki, the opportunity to design courses according to personal preferences, i.e., to own the curriculum, appeared to be a strong motivator. The entire faculty at Abenaki agreed to implement an assessment program provided that it was not tied to their performance evaluation. An outsider could say that faculties do not want to be accountable for student learning. Some of the faculty motivators may not serve the reform or the students well so the president may consider alternative means of motivating faculty. At Abenaki, monetary reimbursement in recognition of the additional efforts made by the faculty appeared to have helped. Faculty commented that time off to do the reform work would help in their efforts to reform the curriculum.

A university president would also do well to identify an innovative faculty leader(s) with a passion for reforming the curriculum—either a faculty member or “faculty-like” person, one who has the respect of and high credibility with the faculty. In the cases studies, such leaders were continually present to work through issues with the faculty in keeping the reform on track.
In addition to having effective faculty leader(s), a core group of faculty who fiercely believed in the cause was also essential to the reforms. Reform was not an easy task, especially when some faculty did not believe that the curriculum needed to change. This took much communication, deliberation, motivation, and negotiation. The research examples suggest that inspirational faculty leaders, working together with all faculty members, can successfully develop a curriculum that serves the students and the institution well. Accordingly, a president needs to choose these inspirational leaders wisely.

Faculty can benefit from this research perhaps by realizing the value of undergoing a curriculum reform. Clearly a lot of work is involved—work in addition to regular duties for which participants may not receive pay or time off. The end result, though, can be a much better product—a curriculum that allows faculty to be better teachers and researchers, a curriculum that better meets the needs of the students, the institution, higher education, and perhaps even society. A reformed curriculum may energize and refocus faculty, perhaps reminding them why they went into teaching in the first place. Faculty can also benefit from realizing the value of compromise. Compromise was necessary in bringing about reform at both Graver and Abenaki. In the end, no single faculty or department attained everything they desired in the reforms, but they did attain improved curricula they could all work with. Taking into consideration the personal gains discussed previously, faculty members have much to gain from a curriculum reform.

Perhaps one of the most important concepts that can be taken away from this research in terms of the effects of curriculum reform on students is *the importance of determining if student learning has been improved*. Designing and implementing the
curriculum does not end a reform. Both a Graver faculty member (Faculty member, personal communication, January 26, 2015) and the Provost at Abenaki University (Provost, personal communication, October 1, 2015) indicated that, in reality, reform never ends. An assessment program must be developed and implemented to determine if students are achieving the learning objectives. Graver has not implemented a university-wide assessment program, although the university is contemplating doing so. Abenaki has worked hard to instill a culture of assessment, and has developed a permanent, formal assessment procedure to determine if its learning objectives are being met. However, participation in the assessment procedure is voluntary and there are no personal repercussions if results show that the learning objectives were not met. One could argue that if it is unknown if the learning objectives were being met, perhaps the faculty should be required to participate in assessment and should be held accountable. After all, faculties are an integral part of higher education, and are mainly responsible for assuring student learning! Moreover, true assessment of student outcomes cannot be determined solely by course assessments. A university would need to confirm with employers and graduate schools that enroll their alumni through competency-based methods that the curriculum is having its intended purpose. Assessment needs to be intensive, comprehensive, and thorough in order to know if the reform was worth the effort. In this way, the true effects of a curriculum reform on students can be known. Additionally, assessments and benchmarking should be made prior to the implementation of the curriculum reform, so that the university can assess the impact that the curriculum had on students learning.
The question of reform being worth the effort becomes even more difficult to answer from a societal perspective. The survey of literature indicates that higher education in the United States could indeed benefit from curriculum reform. However, these two case studies would indicate that their reforms did little to address the issues cited in the literature, and were of minimal benefit to higher education and society as a whole. Granted, benefiting higher education and society as a whole was not the stated intentions of either Graver’s or Abenaki’s reforms. But once again, one could argue that these goals should be taken into account when designing any curriculum. Civilization does benefit from better educated citizens, but in reality very little practical information can be taken away from these case studies in attempting to address this thorny issue.

Much information does exist regarding how to structure a curriculum and how to create an environment of learning. The two institutions used external research to different degrees and in different ways in designing their curricula. At Abenaki, the faculty members developed their curriculum based on their personal experience, knowledge, mission, and, to a lesser extent, on what the research suggested or what other institutions were doing. At Graver, faculty members used external sources in determining if they should adopt the new four-course system and which methods to use to enhance the courses. But again, the Graver faculty, although not the intent of the reform, did not significantly use external research to comprehensively reform all aspects of the student experience. Over all, it does not appear that faculty placed significant emphasis on new theories in pedagogy, the use of technology to enhance teaching and learning, learning theory, and new models of learning and curriculum development. Ironically, faculty members are trained to carry out research. By overlooking the importance of such
research, it could be argued that faculty are “reinventing the wheel” every time that they reform their curricula.

It could further be derived that settling on a curriculum is in part a result of faculty member’s perceptions and personal interests. In these two cases, evidence showed that, despite the noble goals of the reform, personal interests continued to affect the ultimate product. Reform can effectively become a battle to defend the importance of the faculties’ own fields and interests. In both case studies, no unifying plan that would guard against fragmentation or irrelevancy in the curricula was noted. At Abenaki, the registrar stated that very often when a faculty member leaves the university or retires from teaching, his or her courses are no longer offered and the faculty replacement introduces his or her own courses of interest. One would have to wonder if the courses eliminated really mattered or made a difference in a student’s development. Determining a curriculum may involve making tough decisions on what courses actually need to be taught, and then focusing on those courses even at the expense of other ones.

Other factors were also largely disregarded in designing the curricula at Graver and Abenaki, such as how long it should really take students to graduate, the costs of a college education to students, serving the under prepared, and the expenses that the universities incur in graduating students. These issues are of great importance to students and higher education as a whole, and can often make the difference between success and failure. Modeling (financial or otherwise) was not carried out to any considerable extent in the two cases studied, although Graver did administer a pilot program to test the impact of the reform. Universities could benefit by conducting modeling on how a new curriculum would to impact both students and the universities.
In addition, no attempt was made to examine each organization’s definition of curriculum in order to determine what curriculum should encompass. Literature tells us that four types of curricula are at work in most educational settings: explicit, implicit, null, and extra. Sometimes what universities decide not to teach can be as important as what universities do teach. Many factors outside of the classroom can affect learning. However, these considerations do not appear to have been taken into account when designing the curricula at both Graver and Abenaki.

Overall, from the standpoint of the benefits to society, the reforms at Graver and Abenaki do come up lacking. The majority of the issues impacting higher education and thus our society were not even considered. The true benefits of the reforms to every stakeholder involved remains to be seen. Reform is risky, complicated, and political. Perhaps what can be taken away from this research is not so much what should be taught at colleges and universities, but how to best determine what should be taught and what students should learn. A reform effort should be comprehensive, student centered and mission driven. It should be conducted in collaboration with all faculty members under strong, empathetic leadership, and it should be assessed properly. Only then will students, faculty, and teaching institutions (and perhaps the academy, employers, and society) experience the benefits of curriculum reform. Does reforming the curriculum improve undergraduate higher education? Much depends on the willingness to make tough decisions and focus on the students rather than the faculty, leaders or the university.
CHAPTER 5: KEY FINDINGS, ANALYSIS, AND CONCLUSION

Although this study does not quantify the extent to which the curriculum reform at either Graver School at Epperton University or Abenaki University improved undergraduate education, much can be learned about the process of curriculum reform through examining their efforts. The research provides insight into what motivates faculty members and administrators to reform the curriculum, the approach taken in reforming the curriculum, the nature of the changes made to the curriculum, and the outcomes they achieved and continue to realize. It is not a static environment. Furthermore, the research provides a unique vision into the academy and how its people can do a better job to improve undergraduate education in the United States.

The study demonstrates anew that there are professionals in higher education who are committed and dedicated to the students and the purpose of higher education. All subjects interviewed in this research had a passion for their work, were very motivated and excited about the new curriculum and the process used in developing the new curriculum. It must be noted, however, that participating faculty members and staff members were selected by the respective universities and were probably already champions and believers in the curriculum reform. This selection method may have generated a somewhat skewed view of the reform. Furthermore, the number of interviewees was limited. Nonetheless, participants were professional, experienced, and dedicated educators seeking to define and describe their thinking as to how their university approached the task of reforming the curriculum. It is somewhat akin to asking the brain to think about itself.
All of the faculty members interviewed were seasoned PhDs with various areas of specialization, as well as having served in one of the universities for numerous years and in the academy for decades. Each agreed that teaching was tiring but very rewarding. They stated that legislators, wanting faculty members to be more productive, do not understand the work of the faculty members. As educators, their jobs are not like those of factory workers and their productivity is not easily defined or measured. Experienced faculty members understand that what students learn is sometimes not converted into new skills until years later when an event or circumstance causes them to draw upon earlier learning that can facilitate the acquisition of a new skill, or when students have sufficient maturity and experience to put the learning into practice. Educators do not often see the results of their efforts. When asked why they do it, their response was – “it is a calling.”

While acknowledging the hard work, dedication, and commitment of some faculty members, this study of two universities indicates that there is an opportunity for faculty members to change their long-standing practices, ideologies, and preferences and improve the undergraduate higher education. Like most people, faculty members tend to make decisions that serve their own best interests. Faculty members in most disciplines teach what they want to teach, how and when they want to teach it and, at times, such preferences do not correspond with what students need to learn. It could be construed that higher education exists for the gratification and fulfillment of the faculty members and not for the education of the students.

The study of Graver School at Epperton University and Abenaki University provided valuable examples as to what transpires as faculty members do the work of crafting a new curriculum, as well as an awareness of the opportunities that exist for
faculty members and all who work in higher education to improve the academy. The curriculum development process itself brings into clear focus many of the reasons for reforming the curriculum to the benefit of all. According to the Associate Provost at Epperton University, some faculty members had not changed their course content or pedagogy in over twenty years. If not for the curriculum reform, they might continue using familiar content and methods until they retire. The research provides conjectures, observations, and opportunities that those involved in higher education may consider as they contemplate reforming their own curriculum. Curriculum reform takes place within the context of the entire institution, but the majority of the discussion of this study is focused on faculty members’ contributions and activities because the curriculum is the responsibility of the faculty members.

*Impetus for reform* - Faculty members become involved in reforming their curriculum for many reasons including owning their particular curriculum, addressing external mandates, promoting their ideology, specialization, or personal views and interests, and enhancing student learning, but not necessarily to address the myriad issues facing higher education such as the length of time students need to complete a degree program, the cost of educating a student, improving graduation rates, affordability, or assistance for the underprepared.

At Graver, the impetus for reform was mixed. A core group of faculty members advocated establishing a more engaging, deeper, more focused and rigorous learning experience for students. The core group believed such reform would invigorate the liberal arts and revolutionize how both students and faculty members work by reducing the number of courses that students took and the number of courses faculty members taught.
Seen as an alternative motive, and a source of conflict among the faculty members, was to reduce the teaching load. By reforming the curriculum, faculty members were able to reduce their teaching load from four courses to three courses per semester, allowing faculty members to pursue personal interests. Although faculty members could use the free time for activities that could benefit the students, the change resulted in faculty members reducing their teaching load by 25%.

Another area of conflict regarding the motive for change at Graver School was the president’s desire that the university increase its distinction by adopting a course-based curriculum similar to the model used by prestigious private universities. The goal of becoming more prestigious was a source of contention and much debate among the faculty members and perhaps a reason why the reform was not carried through for the entire university. Some faculty members claimed that becoming prestigious was not part of their mission and that there was no need to change; that the university was already doing well. Once again, even faculty members within the university claimed that the curriculum was not been changed for the right reasons, but rather to pursue motives that did not coincide with the mission of the university or in the best interest of the students.

At Epperton, the impetus for reform was not as contentious as at Graver School. The impetus was an external request that the university establish an assessment program. An additional motive was that the new generation of faculty members would introduce its own curriculum. Hence, the reform at Epperton was not born from a desire to improve student success or improve their performance, but rather from an external request and a desire on the part of new faculty members to own an identifiable curriculum. One could ask about the importance of faculty members owning a curriculum, and whether a
The lack of focus on addressing the issues facing higher education does not rest solely with the faculty members. It could be said that it extends to the top of the administration. The reason for curriculum reform, as stated by the president at Epperton University, was to seek heightened distinction for the university. Such elevation in prestige could make the university more successful by attracting more and “better” students. Abenaki, as part of its strategic plan, aims to secure a role as a national model for exemplary undergraduate education. These additional goals of each university, although noble and which may result in heightened recognition for each university, do not reach the heart of the problems in higher education.

Although the motives for embarking on curriculum reform were mixed and noble, neither of the universities was focused primarily on addressing the issues impacting higher education. One could conclude that the main impetus for reform is not to improve the success of students or improve higher education, but rather to promote individual personal goals.

*Reform process and changes* - The manner in which universities approach curriculum reform and define curricula differ. There do not appear to be common working definitions being used when reforming the curriculum. As a result, universities end up with different outcomes and curriculums. Graver refers to its curriculum as the courses that are offered by the school. The Graver School concentrated its efforts in enhancing the courses in seven areas: 1) Course Content and/or Collateral Readings; 2) Undergraduate Research and Information Literacy; 3) Technology; 4) Higher Level
Thinking Exercises; 5) Services Learning/Civic Engagement; 6) International Education/Cultural Enrichment and 7) Additional hour(s) in Class, lab or Studio. Graver did not perform an inquiry into other areas of the curriculum as defined by the literature. The changes were limited to the enhancements of the courses.

Epperton University is now considering updating its General Education requirements. Furthermore, the number of courses, the sequence in which courses must be completed, and which courses would be required were not considered in the reform. Nor were extracurricular activities viewed as part of the educational experience. If the entire learning experience is not considered, the resulting curriculum will be short-sighted and may not address all of the students’ higher education needs.

Abenaki University refers to its curriculum as the Central Curriculum, which defines the nature and scope of skills and knowledge that students should obtain though the core curriculum. Hence, Abenaki concentrated its efforts in modifying its courses and programs in support of the university learning objectives and the learning objectives of the core curriculum now called Central Curriculum. The changes made to the curriculum and the consequences of the changes reflect how each university views its curriculum. Neither of the universities included in its curriculum reform efforts all of the factors that the literature states that are part of the student’s learning experience and should be incorporated in the curriculum. As a result, the curriculum reform may fall short of maximizing student success.

Although experts claim that the curriculum influences all areas of the student experience and the university as a whole, many of the broad issues faced currently by higher education were also not specific drivers in the reform. Experts claim that the
curriculum should be structured and coordinated or students should receive consistent advising so that a sense of structure is achieved. Faculty members do not consider all the curriculum factors known to impact student’s success as germane to the reform process. At Abenaki, the curriculum is so flexible and complicated that trained academic advisors use a mapping software and frequent conferences to map and monitor students process. At Graver, the question of structure was not a consideration during its reform, since its reform was limited to the enhancement of the courses.

Completion time for various courses of study, or assisting underprepared students through the use of the curriculum were not considerations at either university. At each university, the number of credits hours, sequence, structure, or classes to graduate were not reviewed or changed.

The rigor of the curriculum, another issue cited in the literature, was not addressed equally at both universities. It is typically thought that the curriculum is not sufficiently rigorous. In its accreditation self-study, Abenaki presents one of the results as having designed a rigorous Central Curriculum. When faculty members were asked how they infused rigor into their courses or how they measure rigor, they were not able to define how they build rigor into their curriculum or how to define rigor. Graver also stated that “increased rigor” was one of its aims in reforming its course. A post reform survey of faculty members and students indicated that the enhanced courses were more rigorous. However, faculty members have not developed the means to assess rigor. According to the Associate Provost at Epperton, a means to assess rigor is to ask students who had taken courses under each system.
Higher education is being asked to be more productive and innovative. Many suggest that technology can assist higher education to do a better job. Each university implemented technology and innovation to various degrees in the curriculum. Graver School promoted innovation in the pedagogy in the enhancement of its courses, but it is uncertain if any innovative practices were adapted in the new curriculum. According to faculty members, SCOR requirements may actually inhibit creativity in the new curriculum. At Abenaki, innovation or implementation of new pedagogy were not concepts considered to be part of the curriculum. As determined through interviews with faculty members, pedagogy is left to the individual faculty member, but it was not one of their goals to explore or implement new pedagogy or the use of technology. Although innovation was not a focus in the reform at Abenaki, it implemented a leading-edge study abroad program, the GO Program, for which it has received national recognition. As related to the implementation of new technology, it was noted that the universities are trying, to various degrees, to incorporate technology in the classroom with differing degrees of success. At Graver, approximately 58% of the courses were enhanced through technology. Abenaki provides workshops on the use of technology and technology was not a main focus in the reform or incorporated to a great extent into the curriculum. Technology does not appear to be of major importance to the faculty members at Abenaki. Faculty members are divided on the use on online courses. As such, online courses are not offered during the regular school year.

“Productivity” is probably the main broad economic and socio-cultural issue universities are being asked to address. However, productivity was not a concept under consideration when reforming the curriculum. For academics, the term “productivity”
brings to mind clerks holding stop watches on faltering factory workers. It is anathema to scholars. However, this issue has plagued the halls of academia ever since the industrial revolution. Faculties, in fact, argue that it is difficult to measure the productivity of their work and that it should not be measured against some sort of industrial paradigm. Instead, the focus should be on the quality of the education provided. Productivity could be measured in relation to the utilization of resources (e.g., classrooms, labs, personnel and financial resources) and student’s success (e.g. student’s time to completion, the number of students who graduate, what students learn to do and their success to pursue their goal after college). If productivity is not defined and evaluated, how can higher education know if it is meeting its societal purpose? Adding to higher education’s lack of productivity is its inability to adapt best business practices. Neither of the two universities performed financial modeling of its new curriculum to determine the impact that the new curriculum was going to have on the finances of the universities or how it was going to impact other parts of the university’s business model. At one of the universities, the CFO expressed concern about being able to meet the expenses associated with new programs, facilities, and the new faculty members hired to implement the new curriculum, all of which contributed to the first deficit ever experienced by the university. At the other university, they also hired new faculty members as a result of the new curriculum. Once again, modeling was not conducted.

Disparities between the faculty members and the public - There appears to be a divide between how faculties view their role and the role society believes faculty members should have. A common concern among faculty members is that they are expected to prepare students for a job and not for life. This appears to be a major source
of contention between the public and the faculty members. Faculty members spoke about their disciplines, their students, their programs, their curriculum, but not about their place in higher education – in other words, the problems of higher education do not belong to them, the faculty members. Throughout the research process, faculty members did not express concerns about the issues in higher education or their intent to solve them through their work or their curriculum. Faculties do not appear to see the problems facing higher education as being their own problems. The issues of affordability, or completion time, or the cost to graduate a student, are problems for someone else, not academics.

What is also interesting is that those faculty members are researchers at heart. However, when it comes to establishing their own curriculum, they believe in developing their new curriculum organically, i.e., based on their own internal expertise, beliefs, and idiosyncrasies. Faculty members at each university used external sources and research to different extents. At Graver, reform taskforces visited peer and aspirant institutions that had similar curricula to ascertain the impact of the course-based curriculum model. The faculty members further researched the Maryland State University system requirements and invited curriculum experts to present to the faculty members. Graver relied heavily upon SCOR to provide structure for its course enhancements. But the resultant learning enhancements used to convert the three credit courses into four credit courses were ultimately the product of the faculties own views and ideas. Abenaki consulted several sources, including the AAC&U, the National Survey of Student Engagement, and employer surveys. But the learning objectives and General Curriculum that Abenaki settled upon were entirely its own. In the end, the final products at both institutions were very much outcomes of the views of the faculty members, their leaders, and their
institutions’ missions. The final curricula were ones that were thought to be best for their institutions and did not necessarily take into consideration best practices used at other institutions, what had been recommended in the literature, or what the experts thought. Faculty members did not necessarily incorporate new models on curriculum, learning theory, new pedagogy, or technology, but rather developed the curriculum based on their own views and experiences. Faculties, to some extent, are re-inventing the wheel by not incorporating the research of their peers when reforming their curriculum.

It was also noted that the specialization of faculty members and their interest in teaching influences what is included in the curriculum and ultimately what is taught and students learn. What was uncertain was the existence of an observable correlation between what faculty members enjoy teaching and direct benefits to students. It was noted that when faculty members retire or leave a university, the courses that they taught are often discontinued. The courses are replaced by courses that new faculty members want to teach. A serious consideration is to determine if course content taught by the previous faculty members was adding any value to the student preparedness. It is incumbent on the academy that curriculum be developed that is focused on the student needs and not on the faculty members specialty.

Reform length - Noting that reforming a curriculum involves many stakeholders and that many voices must be heard, negotiations conducted so that everybody’s interests are protected, courses and programs saved; considering the rate of change of technology, the work place, and the economy, curriculum reform takes too long. At the two universities researched, the design and implementation of the new curriculum took between 3-5 years. Considering the rate at which technology and the market place in
which students are going to be required to work, the curriculum may be obsolete before
the first cohort of graduates enters the workforce. Improving the time to implementation
is another opportunity for improvement. Perhaps, a continuous examination and
adaptation of the curriculum that is refined based on research and in accordance with
social needs may be more appropriate.

Assessment – Is the new curriculum making a difference in student learning?
Neither of the universities researched could confirm if students are actually learning
more. In fact, one university to this date does not have a university-wide assessment
program and the other has a volunteer system of assessment. At the university that did
implement an assessment program, the program is voluntary and the results are not tied to
the teacher evaluation. Some faculty members do not believe that learning can be
measured and that attempts at such measurement are too time consuming, so they are
electing not to do it. Where others, according to the Special Assistant to the President and
Institutional Effectiveness and Assessment at Epperton, faculty members have not been
interested in collecting assessment data and, to even a lesser extent, in comparing their
performance with faculties at other institutions. According to one faculty member, even if
faculty members do not like the word “assessment,” assessment must exist to show
whether faculty members are effective teachers and if students are achieving the learning
objectives and are not just pleased and happy, and think that the class was wonderful.

Participation in assessment appears to be a challenge faced by both universities.
At one university, the reformer had to call upon the faculty members’ deep-seated
devotion to student learning to get their support of the reform at Graver. At the other
university, the assessment was made voluntary and had to be separated from the
evaluation of faculty member’s performance to obtain buy-in from the faculty members. Faculty members could participate in the General Education assessment with impunity. This helped increase participation. Without an effective assessment program, it becomes nearly impossible to determine if students are actually achieving the desired learning outcomes.

Outcomes

Despite the various motives for reforming the curriculum, it appears that the changes made to the curriculum are having some positive impact on the students and faculty members. Some of the initial goals for reforming the curriculum were achieved while others remain to be evaluated. To date, the universities have not presented conclusive evidence to confirm that their reforms resulted in students increasing their skills and knowledge or that the universities improved their reputations for quality education, although surveys and anecdotal evidence would indicate so.

At Graver, the initial indications from faculty members showed that the new course structure resulted in students being more engaged, reading more, and studying more. After some initial resistance, students appeared to have embraced the changes, rising to meet the higher expectations. The faculty members claimed that students had become more self-directed learners and better writers. Surveys also indicated that students were participating in more co-curricular activities. All of this would corroborate that the curriculum reformers had accomplished their goal of enhancing the student learning experience. A Graver faculty member (Faculty member, personal communication, January 26, 2015) also speculated that the reform may have expanded
Graver’s appeal, and that Graver might be attracting students who would otherwise go to other colleges.

Most faculty members at Graver were energized by the changes, and felt that they had become better teachers and researchers because of the reform. Others thought that the reform was the greatest mistake ever made and that it should be reversed. Some faculty members claim that the reform enhanced the faculty members/student relationship because faculty members had more time to provide feedback, engage with, and mentor students. Because the faculty member’s workload was effectively reduced, faculty members were able to conduct a greater amount of research and incorporate their research into their teaching. According to a Graver faculty member (Faculty member, personal communication, January 26, 2015) and the Associate Provost, the lower teaching load has resulted in the school being able to attract more qualified faculty members, the prior heavier teaching load discouraged qualified faculty members. The post reform analysis showed that none of the dire consequences predicted by detractors of the reforms occurred. Students were not dropping out, retention and GPAs did not decline; faculty members were not miserable. The change had been worthwhile.

At Abenaki, the students were not affected a great deal by the reform, according to the provost and the chair of the Faculty members Senate. Students continued to take requirements similar to those at other liberal arts colleges. One notable exception was the Go Program, in which students were required to have an off-campus, cross cultural experience, followed up by an on-campus reflective course. Faculty members reported that the Go Program had pronounced effects on the students’ maturity and sensitivity to diversity.
Abenaki also reported that the new learning outcomes and assessment program provided a common language for faculty members to speak about what students were learning in the classroom and not about what was been taught. The Provost reported that the reform energized the faculty members. They now owned the curriculum that they taught. Faculty members became far more involved in and concerned with assessment. The provost also stated that the reform served as a catalyst for the growth of a culture of assessment which is still increasing today. At the most recent Middle States visit, the accrediting agency complimented Abenaki for having an exemplary assessment program. It appears that Abenaki is moving in the right direction.

Despite the optimistic, positive changes, each university is also experiencing some fallout after the reform. At Graver, the university had to hire twenty new faculty members to implement the new curriculum at a time when higher education is being asked to reduce expenses. Abenaki had to hire thirteen new faculty members to implement its new curriculum. At Abenaki, the Ratio of Instructional to Institutional Cost per Student increased from 1.95 in 2008 to 2.31 in 2013 and its cohort retention rate declined from 86.5% in 2008 to 83.8% in 2012.

Conclusions

The study confirmed that the academy attracts a very special group of professionals, who have very special views, and who refer to their jobs as a calling, but who, at times, pursue their own personal interests. What also became clear is that despite the many efforts being made by the academy, those working in higher education can do a better job in serving the students, the universities, higher education, and society. At both universities, the faculties appear to make decisions that were in their own best interest
and not in the best interest of the students. Similarly, administrators make decisions based on their personal interest or in pursuit of revenue and prestige for the university, and not in the best interest of students and higher education. The research further shows that the curriculum impacts all parts of an institution, and undergraduate higher education can be improved by having an effective curriculum. The study further confirms that the student’s success and to some extent the success of the university and higher education is in the hands of the faculty members. Therefore, the comments in this conclusion are focused on the faculty members.

*From the impetus for reform perspective:* it was found that improving student success or addressing the issues impacting higher education are not the main or only consideration of faculty members and administrators when reforming the curriculum. Nor, does it appear to be a unify goal between faculty members and administration for the purpose of changing the curriculum. The university leadership appears to be interested in increasing the vitality of the university by enhancing the prestige, the position of the university within higher education, or the desirability of the university by students. Faculty members appear to be interested in promoting their interest in scholarship, ideology, views and own interest. But a unified impetus focused on students’ success or improving the productivity of higher education was not noted.

It was also noted that there is some disparity between the expectations of society and what faculty members see their identity and role in higher education. Faculty members see themselves first as subject specialists, researchers, and educators, and it is uncertain if they see themselves as the solution to the many problems facing higher education. Faculties do not speak about the issues impacting higher education as their
own: e.g., affordability, containing cost, improving time to completion, or assisting the underprepared students through their curriculum.

Another item noted is the existence of significant differences in defining the curriculum and the approach taken to improve it by each university. Universities define the curriculum differently, which impacts the scope of the reform, the areas reviewed, and what is included in the reform. This leads to curricula that are reviewed and reformed to different levels. Faculties are not incorporating the latest research on pedagogy, technology, learning theory, or performing financial modeling. This came as a surprise given that all of the Ph.D. faculty members are knowledgeable about research. Instead, faculty members use their own experience and develop their curriculum organically based on personal experience.

In closing, undergraduate education in the United States can be improved by reforming its curriculum. What is imperative is that faculty members and administration work towards a common goal - solving the many social needs facing higher education - by focusing on improving the productivity and efficiency of higher education. In the words of Robert Zemsky (Zemsky, 2013) the best place to start is with the curriculum, it is the curriculum that matter most.

Faculties are the heart of higher education and at the heart of improving higher education.

**Implications for Future Research**

The two universities studied are reporting positive student and university outcomes after the reforms. In addition, faculty members at both universities report better student performance and engagement. However, neither of the two universities confirmed
with external sources (e.g., employers and graduate schools) whether the students graduating under their new curricula are performing better. This creates an opportunity for future research to discover whether employers are seeing a difference in the students graduating under the new curriculum. Further examinations could be conducted to determine if students who graduated under the revised curricula exhibit the learning outcomes that the reforms intended, and how they compare to previous students and to students from other universities. The results could provide insight on the effectiveness of the curriculum reform efforts and potentially identify areas of improvement.

Other phenomena that became apparent through the research were the importance of leadership, trust, the engagement of the faculty members as leaders and contributors for the reform to take place and the relationship between faculty members and the administration. As a follow-up to this research, studies could be performed to document the relationships that must exist between faculty members and administration and the attributes that leaders must have to promote an effective curriculum reform.

At the Graver School, one of the goals of the curriculum reform was to enhance the classes from three credit hours to four credit hours using the seven menu options. It would be interesting to know if the rigor of the new four-credit courses has changed since the curriculum was initially implemented. Have the courses become more or less rigorous? Are courses “slipping back” to their former three-credit workload? Have the course enhancements become more diverse? These questions could be answered by surveying faculty members to determine if they have adjusted the assignments or other learning experiences required in their classes. A related opportunity is to assess the
courses in relation to SCOR requirements to determine if they are being taught at a four-credit level.

Abenaki University may want to explore further the potential of changing the time required to graduate. Under its new, flexible curriculum, students at Abenaki University are sometimes able to fulfill the Central Curriculum requirements by taking a variety of courses within in their majors. It would be interesting to research whether Abenaki could design a curriculum that would enable students to meet all of the requirements for graduation by taking courses offered in their majors, effectively allowing students to graduate in three years instead of four. Would this even be desirable? Would it provide an adequate liberal arts education? Is it consistent with Abenaki’s mission? More research is needed.

Research is also needed to investigate how faculty members view their roles in higher education and how that perception impacts the success of higher education in meeting the social needs.

The academy could benefit from having more information about the effects of faculty members training in curriculum design. Perhaps the time to accomplish a reform could be shortened if faculty members were trained prior to the start of a reform, for instance. Some faculty members did not consult existing research when designing curricula, even though faculty members are trained as researchers. This could be an area for future study.

More research is also needed to determine if some of the findings of this research can be applied to a wider association of higher learning institutions. According to Yin (2012), findings from case studies such as this cannot be generalized to entire populations
or universes unless more studies are performed. A follow up to this research study could be to expand the number and scope of additional case studies in order to be able to make valid generalizations.
APPENDIX A: LITERATURE REVIEW

Opening Statement

Prior to discussing the role of curricular reform in improving undergraduate higher education, it is important to understand the challenges and opportunities confronting higher education in the United States. This literature review will provide a brief overview of those challenges and opportunities and include what researchers and scholars agree should be done. It will show that experts attest that curriculum reform is at the heart of improving higher education in general, and that, in most cases, a pressing need exists to change curriculum. The bulk of existing research regarding curricular reform centers on student learning content and does not address financial concerns. This research attempts to verify if curricular reform is indeed increasing student success while keeping expenses under control.

Introduction

According to analysts, the world has become a knowledge-based economy (Organization for Economic Co-Operation and Development [OECD], 1996; Alliance for Excellent Education, 2011). Estimates indicate that by the year 2018, 63% of jobs worldwide will require a post-secondary education (Carnevale, Smith & Strohl, 2010). The ability of a country to compete globally will depend on its ability to educate its populace (Arum and Roksa, 2011; OECD, 2013a). The United States was once the world leader in having the largest number of educated citizens (Arum and Roksa, 2011; McKinsey and Company, 2009). In the United States, the percentage of adults with bachelor’s degrees is declining compared with other countries (Arum and Roksa, 2011; Aud et al., 2013). The cost of college attendance is increasing at a greater rate than that of
income, especially for the lower economic sector of the population (Baum and Ma, 2013; Bok, 2006; Bowen, Chingos and McPherson, 2009). At the same time, the number of U.S. students categorized as living in poverty is increasing (Aud et al., 2013). In addition, the demographics of students attending colleges and universities are also changing; students with fewer resources are entering the educational system (Bowen, Chingos and McPherson, 2009).

Overall, only 37.9% of college students complete bachelor’s degrees after four years, and 58.3% complete bachelor’s degrees after six years (Velez, 2014). The Organization for Economic Co-Operation and Development (OECD) estimates that each student who drops out of college will cost the nation approximately $365,000 over the life of the student (OECD, 2013a). Noting this social and economic challenge to the United States, President Obama, in his address to a joint session of Congress on February 24, 2009, established a new goal for the nation. He declared that by 2020, America will once again have the highest proportion of college graduates in the world (The White House, 2014).

**Background and Success of United States Higher Education**

From its beginning, the United States has invested in the higher education of its populace. As a result, the nation has maintained one of the best-educated and most productive workforces in the world. Higher education in the U.S. has not only been one of the main facilitators of social mobility and economic progress in the country, it has also provided education and opportunities for students from other countries.

The United States continues to attract scholars from around the globe (Carey, 2004). In the last decade, the number of international students in the United States has
increased by 40%, with a 7% increase in a single year (from 2011-2012 to 2012-2013).
The nation now posts a record enrollment of 819,644 international students, compared to 283,332 U.S. students who study abroad. Higher education is a great contributor to the U.S. economy, with international students contributing approximately $24 billion (Institute of International Education, 2013). According to the 2013-2014 World University Rankings, 15 of the top 20 world’s universities are in the United States (The Times Higher Education, 2014). The Nobel Prize has been awarded to more citizens of the United States than to citizens of any other country in the world (Nobelprize.org, 2014). However, all institutions are not attaining high achievement; the Nobel Prize is limited to selective research institutions (Arum and Roksa, 2011; Bound, Lovenheim and Turner, 2009). Despite its noteworthy successes, the United States is falling behind the progress made by other countries in educating their populations (McKinsey and Company, 2009; OECD 2013b; United States Department of Education, 2006).

Although the number of adults between the ages of 23-33 attaining bachelor’s degrees is increasing in the United States (Carey, 2004; OECD, 2013b), in 2011, the United States ranked 12th in the number of adults between 25-34 years of age who have attained tertiary education among the 34 member countries of the OECD (OECD, 2013b). Between 2001 and 2010, the number of adults between the ages of 25-64 who attained bachelor’s or higher degrees increased seven percentage points on average for the OECD country members (from 15% to 22%). In the United States, the number increased four percentage points (from 28% to 32%). Despite this, the United States spent more on education than corresponding OECD countries. In 2010, the United States spent 7.3% of
its GDP for all education combined, compared to 6.3% for other OECD countries (Aud et al., 2013).

McKinsey and Company (2009) reports that the U.S. educational performance has fallen behind other advanced nations. In a 2006 comparison of international student assessments, the United States ranked 25th of 30 nations in math and 24th of 30 nations in science. This has significant consequences for the United States. McKinsey and Company (2009) states that:

If the United States had closed the international achievement gap between 1983 and 1998 and raised its performance to the level of such nations as Finland and Korea, US GDP in 2008 would have been between $1.3 trillion and $2.3 trillion higher, representing 9 to 16 percent of GDP. (para 4)

Challenges Facing United States Higher Education

The world is changing rapidly, becoming more complex and increasingly global (Arum and Roksa, 2011; OECD, 1996; Ray et al., 2012). The United States Department of Education (2006) reports that a new set of skills is necessary for successful employment and continuous career development. A survey of 302 employers at private sector and non-profit organizations found that in general, employers would like workers to have broader knowledge and skills (Hart Research Associates, 2010). Similarly, a survey of 400 employers across the United States identified the most important skills needed for college graduates to succeed in the workplace: oral communications, teamwork/collaboration, professionalism/work ethic, written communications, and critical thinking/problem solving. Only approximately 23.9% of college graduates were
perceived to have excellent skills in these crucial areas of proficiency (Casner-Lotto and Benner, 2006).

**Changing Demographics**

The number of students in higher education programs in the United States is rising. From 2002 to 2012, total college enrollment grew from approximately 16.61 million to 20.64 million (24.3%). The student population is also changing. In particular, the enrollment of minority students is increasing. Between 2000 and 2012, the number of Black college students increased from 1.73 million to 2.96 million (71.2%); Hispanic college students increased from 1.46 million to 2.987 million (104%); and Native American college students increased from 151,200 to 172,900 (14.4%) (National Center for Education Statistics, n.d.).

Furthermore, the number of students living in poverty in the United States has increased. From 2000 to 2011, the percentage of children under the age of 17 living in poverty grew from 15% to 21% (Aud et al., 2013). These children are now or soon will be entering the higher education sphere. The socio-economic status of students has been strongly associated with performance in school (Arum and Roksa, 2011; Bok, 2006; Bowen, Chingos & McPherson, 2009; Carnevale, Smith & Strohl, 2013). Educators will be increasingly challenged to meet the needs of this new population of learners.

Arum and Roksa (2011) report that the learning gap between the advantaged (i.e., wealthy, upper class) and the disadvantaged (i.e., poor, minority groups) is widening, since the advantaged have the skills and cultural competencies most rewarded in school. McKinsey and Company (2009) identified achievement gaps between students of different income levels, races and school systems/regions. Together with the achievement
gap between U.S. students and those of other countries, they estimate that the cost to the nation is the economic equivalent of a permanent national recession.

**Tuition and Expenses**

The cost of college attendance continues to increase. Between 2003-2004 and 2013-2014, the net tuition and fees at public institutions increased from $1,920 to $3,120 (up 62.5%). Moreover, tuition and fees are increasing at a higher rate than that of inflation (U.S. Department of Education, 2006). From 2000-2001 to 2010-2011, public and not-for-profit colleges and universities increased their annual expenditures for education and related expenses 3%-5% beyond the rate of inflation. Disadvantaged students are affected the most. At the same time that the net cost of attendance increased, family incomes from 2002 to 2012 declined by 13% for the bottom quintile and declined by only 0.5% for the top quintile (Baum and Ma, 2013).

**Areas Needing Improvement in United States Higher Education**

Higher education is being asked to increase access, improve the quality of student learning, raise graduation rates, and reduce or contain rising costs, all at the same time that they serve a changing student community (Twigg, 2003). Higher education has improved its performance in some areas, such as moral reasoning (Wabash National Study of Liberal Arts Education, 2009), qualitative literacy, teamwork, and problem solving (Finley, 2012). However, opportunities for improvement remain – particularly in the area of curriculum. The National Academy of Leadership (n.d.) claims that the current U.S. curriculum is not meeting the societal needs.

A survey conducted by Hart Research Associates (2010) revealed that employers perceived the need for educators to increase their focus on communication skills, critical
thinking, complex problem solving, ethical decision-making, science, and real-world application of knowledge and skills. Sixty-eight percent of employers surveyed concurred that improvements need to be made to the four-year college program. Eighty-nine percent of employers stated that colleges should place more emphasis on effective oral and written communication. Eighty one percent stated that colleges should place more emphasis on critical thinking and analytical reasoning skills, and 79% stated that colleges should place more emphasis on the ability to apply knowledge and skills to real-world settings (Hart Research Associates, 2010).

**Lack of Preparedness**

Results from employers’ surveys indicate that college students are not graduating with the desired knowledge and skills. The majority of employers believe that two- and four-year colleges need to make at least some improvements in preparing students for the global economy. Forty percent believed that significant improvements are needed in two-year colleges and universities, and 49% believed that significant improvements are needed in four-year colleges and universities (Hart Research Associates, 2010). A study of the liberal arts education of 2,200 students at 17 colleges and universities found little or no increase in critical thinking between the first and fourth years of college (Wabash National Study of Liberal Arts Education, n.d.).

**Lack of Rigor in the Classroom**

Other problems with undergraduate education include a lack of rigor and ineffective pedagogy (Bok, 2006; Zemsky, 2013). Higher education reformers have increasingly called for “academic press” – setting high expectations, assigning rigorous coursework accordingly, and increasing faculty involvement in student learning (Arum
and Roksa, 2011). In an analysis of over 2300 undergraduates at 24 institutions by Richard Arum and Josipa Roksa, 45% of undergraduates demonstrated no significant improvement in learning during their first two years of college in areas such as critical thinking, complex reasoning, and writing. Over the entire four years of college, 36% demonstrated no significant improvement in learning in the same areas. Arum and Roska claim that this lack of academic progress is partly due to lack of rigor in the classroom. Thirty-two percent of the students surveyed responded that they do not take any classes with more than 40 pages of reading per week. In addition, 50% do not take any classes that require more than 20 pages of writing. Arum and Roksa also noted that students learn more in courses with high expectations (Arum and Roska, 2011). Similar findings regarding lack of rigor were identified in the 2013 National Survey of Student Engagement (National Survey of Student Engagement, 2013).

The National Survey of Student Engagement has shown that the average full-time college student studies about one hour per week for every hour of class, whereas the generally accepted rule of thumb holds that students should devote two hours to study for every hour of class time (McCormick, 2011). In 1961, a full-time college student studied an average of 24 hours per week. By 2003, a full-time college student studied an average of 14 hours per week (Babcock and Marks, 2010). According to Babcock and Marks, this decline in study time does not appear to be due to better use of technology or other factors. They hold that it is due to a decline in the standards of postsecondary institutions. Research conducted at Berea College suggested that an increase of one hour a day of studying can result in a 5.21-point increase in an ACT score (Stinebrickner and Stinebrickner, 2007).
A report of the commission appointed by Margaret Spellings, U.S. Secretary of Education from 2005-2009, claims that as other nations are rapidly improving their higher education systems, evidence shows that student learning in the United States is declining (United States Department of Education, 2006). According to the OECD, one in six adults in the United States had weak literacy skills. By contrast, only one in 20 adults in Japan had weak literacy skills. Similarly, one in three adults in the United States had weak numeracy skills. Unfortunately, these results are not getting better in relation to the rest of the world (OECD, 2013a).

**Remedial Education**

The problems that trouble undergraduate students often start early in their educational lives. Insufficient study time, for instance, was first cited in the seminal study *A Nation at Risk*, which noted that the amount of homework for high school students had decreased. When compared to other nations, U.S. high school students spend less time studying than high school students of other countries (National Commission on Excellence in Education, 1983).

According to the Alliance for Excellent Education (2007), too many high school graduates are underprepared for postsecondary work. Approximately 20% of all first-year college students in 2007-2008 were enrolled in remedial coursework. This is one percent higher than the percentage of college students enrolled in remedial coursework in 2003-2004, according to data from the National Postsecondary Student Aid Study (Sparks and Malkus, 2013). Remedial education causes taxpayers to pay twice for the education of students – once in high school and again in postsecondary studies – and that price is high. In 2007-2008, the nation spent approximately $3.6 billion providing remedial education.
In addition, the nation lost approximately $2.0 billion in lost lifetime wages, since remedial students are less likely to graduate from college with degrees (Alliance for Excellent Education, 2011). Assessment and placement policies regarding remediation vary, do not consistently promote student success, and may send misleading messages regarding what it means to be college ready (Jaggars, Hodara and Stacey, 2013).

**Academic Structure**

No clear-cut, unified consensus exists on the true purpose of a college education and what students should be taught (Bok, 2006). Chan, Brown, and Ludlow (2014) conducted a survey of literature on the views of students and other stakeholders about the purpose of higher education. They identified nine themes that reflect the aims and goals of obtaining a bachelor’s degree. These are:

1. social democratic values, action, and civic engagement
2. advanced intellectual skills
3. advanced communication skills
4. interpersonal skills
5. vocational and employment preparedness
6. personal life quality enhancement
7. personal integrity
8. graduate school education preparedness
9. family expectations/reasons.

A survey conducted by Hart Research Associates of AAC&U member institutions found that 80% employ a distribution model in their general education program, but only 15% rely on this model alone. Many institutions also incorporate common intellectual development models into their curricula design (Hart Research Associates, 2009). All too
often, though, institutions end up offering a list of courses that focus on the faculty member’s personal interests rather than what students need (Bok, 2006). The survey concluded that many institutions recognize that they can be more effective in linking general education to areas of concentration and communication (Hart Research Associates, 2009).

Studies have found that many colleges and universities do not pay sufficient attention to which courses students take. Majors at many colleges consist of mere collections of courses lacking structure and depth (Zemsky, 2013). A study conducted in 1982 by the Association of American Colleges (now the AAC&U), *Integrity in the College Curriculum: A Report to the Academic Community*, argued that curricula at many institutions have evolved into a type of marketplace in which students are shoppers, selecting which courses they want to take, and professors are merchants of learning. The report also states that undergraduate curricula lack focus and cohesiveness. The bachelor’s degree is declining in value due to a lack of coherence, intellectual rigor, and humanistic strength (Association of American Colleges, 1990).

**Improving United States Higher Education**

Researchers, foundations, institutions, faculty, as well as state and federal governments continue to conduct research on the means and efforts to improve higher education. Some institutions use technology to augment the traditional curriculum. The National Center for Academic Transformation, an independent, non-profit organization, developed a four-step process to revamp curricula that employs teams of faculty to redesign large-enrollment courses using technology. The initial results show significant
gains in overall student understanding, content knowledge and drop/failure/withdrawal rates (National Center for Academic Transformation, 2014).

Another technology-related initiative designed to promote curriculum change is the Open Learning Initiative (OLI), which was established with the support of four leading foundations. This web-based learning program was developed to provide immediate feedback to students, faculty, course designers, and learning science researchers, with the intent of building a continuous interactive learning cycle. Preliminary results show that students achieved comparable learning outcomes at a cost savings over time (Bowen, Chingos, Lack and Nygren, 2012).

Other models have been proposed. The AAC&U has developed the Liberal Education and America's Promise (LEAP) initiative to provide a guiding vision for high-quality education. LEAP sets rigorous student learning goals, provides evidence about achievement of those goals, and tests and reports the value of practices intended to improve achievement. Asserting the importance of a liberal arts education, LEAP establishes four essential learning outcomes:

1. knowledge of human cultures and the physical and natural world
2. intellectual and practical skills
3. personal and social responsibility
4. applied learning.

According to the AAC&U, hundreds of campuses and several state systems are currently making changes through LEAP (Association of American Colleges and Universities, n.d.).

The Lumina Foundation has sponsored the development of the Degree Qualifications Profile (DQP) to establish a curriculum based on what graduates should be
able to know and do. The DQP provides specialized knowledge; broad, integrated knowledge; intellectual skills; and applied learning proficiencies; and civic (global) learning proficiencies. It sets competency standards for graduates of associate, bachelor’s and master’s degree programs regardless of the field of study. The DQP is under continuous review and development. A preliminary study concludes that the DQP has the potential to powerfully impact U.S. higher education (Adelman, Ewell, Gaston, and Schneider, 2014).

Another approach to curriculum reform is the Theory of Disruptive Innovation, developed by Clayton Christensen. Disruptive innovation occurs when a new, usually lower-cost product or service is introduced into a marketplace, displacing an existing product or service. Christensen and Eyring (2011) maintain that the theory can also be applied to higher education. The key to sustainability for either a new or a well-established university is focusing on what it does well and can claim as unique, rather than striving to become like the rare elite universities. The authors provide examples of how several universities have focused on teaching less expensive online programs with successful results, warning that the traditional campus experience may not be sustainable due to its high cost.

Arum and Roksa (2011) propose a reform plan for higher education that entails improving the elementary and secondary schools, the leadership of higher education, curriculum and instruction, and institutional transparency and accountability. The emphasis is placed upon facilitating learning, rather than merely strengthening persistence.
Derek Bok (2006) also presents a plan to improve higher education. Bok proposes a collective effort that requires colleges and universities to undertake ongoing processes of evaluation, innovation, experimentation, and reform. He recommends paying closer attention to the quality of instruction, becoming more learner-centered, and teaching in accordance with more complex understandings of human learning.

Robert Zemsky (2013) proposes a checklist of initiatives that must be enacted to transform higher education. The initiatives center on three major objectives:

1. ensure a stronger faculty voice,
2. develop more competent curricula,
3. guarantee that federal policies support a national process of purposeful change.

Zemsky’s proposal requires calculated, wide-scale efforts on the part of nearly all participants in higher education today.

Another approach to higher education reform attempts to empower its consumers – students and their parents – assuming that better consumer choices can be made that will, in theory, result in better student outcomes. The U.S. Department of Education, according to the 2008 Higher Education Opportunity Act, has established the College Affordability and Transparency Center. This center serves as an electronic clearinghouse that allows users to compare colleges, tuitions and fees, net prices, and other characteristics. Among its offerings is a “College Scorecard” that parents and students can use to assess information about colleges and universities. Each scorecard includes five measures: cost, graduation rate, loan default rate, average amount borrowed, and employment (United States Department of Education, n.d.).
In 2010, the ACTA established a program entitled “What Will They Learn?” that measures the content of curriculum and ranks institutions accordingly. The council’s website provides information on whether colleges make sure their students learn the things they need to know. It measures institutions according to their accomplishments in teaching composition, literature, foreign language, U.S. History, economics, mathematics and the sciences (American Council of Trustees and Alumni, 2014).

The federal government has developed its own recommendations to improve higher education. In A Test of Leadership: Charting the Future of U.S. Higher Education, a commission, appointed by Secretary of Education Margaret Spellings, made suggestions to improve higher education that focused on improving access and affordability; strengthening quality, transparency, and accountability; and encouraging innovation (U.S. Department of Education, 2006).

States have also joined in the reform effort. To date, 30 states have either implemented or are in the process of implementing performance-based funding systems. Performance-based funding provides incentives for colleges and universities based on state-determined goals rather than on the number of full-time equivalent students. Goals may consist of targeted objectives in the areas of course completion, time to degree, transfer rates, the number of degrees awarded, or the number of low-income and minority graduates. All stakeholders – policymakers, higher education leaders and faculty members – are engaged in the design of the funding system. The National Conference of State Legislators (2014) considers performance-based funding a promising approach to reform.
Individual institutions are also making efforts to better their performance. For many, the curriculum is under almost constant scrutiny. The Hart Research Associates survey found that approximately 89% of AAC&U member institutions are in the process of assessing or modifying their general education programs (19% were formally reviewing their programs; 22% were discussing proposals for change; 18% were implementing changes adopted in the past five years; and 30% were in the process assessing learning outcomes in general education). Only 11% were not making any revisions to their general education programs (Hart Research Associates, 2009).

Recognizing that universities need to take action, many higher education institutions are already reforming their curricula. For example, in 2009-2010, Abenaki University created the “Central Curriculum” in an attempt to develop a stronger framework that intertwines all dimensions of student learning during a time of financial challenge (Lemons, 2011). The University of Wisconsin, Oshkosh, has launched a revamped general education curriculum according to LEAP Wisconsin, a growth initiative that uses higher education as the impetus for educational, social, civic, and economic transformation. The state of Wisconsin plans to institute similar curricular change across the entire University of Wisconsin system (University of Wisconsin System, n.d.). Westminster College, Chatham University and Saint Augustine’s University have all undergone full-scale curricular reform utilizing the DQP. As part of the reform, St. Augustine’s University changed its two-year general education curriculum to a four-year competency-based curriculum (Council of Independent Colleges, 2014). These are but a sample of the many types of curricular reform in process.
Proposed Solutions for Improving Higher Education in the United States

Although disagreements may exist about the statistics or the proper means to measure outcomes that indicate reform is needed (Attewell and Lavin, 2007), little disagreement exists about the overall need to improve the performance of higher education (Alliance for Excellent Education, 2011; National Academy for Academic Leadership, (n.d.); National Center for Academic Transformation, 2014; National Commission on Excellence in Education, 1983; OECD, 1996; United States Department of Education, 2006). The focus of reform, however, remains highly contested (Harvard, 2012). Among the many proposed solutions, Zemsky (2013) maintains that the best place to start is at the core of higher education – the curriculum: “It really is the curriculum that matters most – it is what is taught, what is required, and what it is expected of students to learn and faculty to teach” (p. 101). Similarly, Muscatine (2009) claims that a new curriculum for the 21st century is needed to improve higher education. The National Education Association has long advocated curriculum reform as a means of improving the nation’s schools at every level, stating that curriculum reform must reflect generally acknowledged academic standards of excellence, skills, knowledge, and understanding to help students prepare for the future (National Educational Association, 2014). Likewise, the National Academy for Academic Leadership, an organization devoted to educating academic decision makers to be leaders for institutional change that improves student learning, recommends curriculum reform as the primary means of serving the changing needs of students and society in general (National Academy for Academic Leadership, n.d.). The Spellings Commission also underscored the importance of curriculum, recommending that “America’s colleges and universities embrace a culture of continuous
innovation and quality improvement by developing new pedagogies, curriculums, and technologies to improve learning, particularly in the areas of science and mathematical literacy” (A TEST OF LEADERSHIP: Charting the Future of U.S. Higher Education U.S. Department of education, 2006, p. 5) Arum and Roksa (2011) recommend that curriculum and instruction be changed to improve student success. They state that their findings provide clear empirical evidence that academically rigorous instruction improves student performance (p. 129).

Many views exist about the exact definition and purpose curriculum. Lattuca and Stark (2009) define curriculum as an academic plan that at minimum, involves decisions about:

1. **Purposes**: knowledge, skills, and attitudes to be learned
2. **Content**: subject matter selected to convey specific knowledge, skills, and attitudes
3. **Sequence**: An arrangement of the subject matter and experiences intended to lead to specific outcomes for learners
4. **Learners**: How the plan will address a specific group of learners
5. **Instructional Processes**: The instructional activities by which learning may be achieved
6. **Instructional Resources**: The materials and settings to be used in the learning process
7. **Evaluation**: The strategies used to determine whether decisions about the elements of the academic plan are optimal
8. **Adjustment**: Enhancements to the plan based on experience and evaluation. (pp. 4-5)

Ebert, Ebert and Bentley (2013) describe four types of curricula at work in most educational settings: explicit, implicit, null and extra. *Explicit curriculum* consists of
subjects that will be taught, the identified "mission" of the school, and the knowledge and skills that the school expects successful students to acquire. *Implicit curriculum* consists of lessons that arise from the culture of the school and the behaviors, attitudes, and expectations that characterize that culture. *Null curriculum* consists of topics or perspectives that are specifically excluded from the curriculum. *Extra curriculum* consists of school-sponsored programs that are intended to supplement the academic aspect of the school experience. The authors point out that the choice of what *not* to teach also affects the curriculum.

Bok (2006) proposed that intellectual development should prepare students to:

1. communicate
2. think critically
3. practice moral reasoning
4. be a citizen
5. live with diversity
6. live in a more global society
7. cultivate a breadth of interests
8. prepare for work.

In addition to intellectual development, Bok (2006) believes that an undergraduate education should foster generally accepted values, honesty, and racial tolerance.

According to Toombs and Tierney, if curriculum is used to improve learning, its meaning must be distinctly defined and terms must be clearly understood (Toombs and Tierney, 1993). One basic view is that curriculum is “what is taught.” According to
Toombs and Tierney, though, a wide range of meanings exist. The definition of curriculum may be constructed around five different concepts. These concepts view curriculum as:

1. a plan for learning
2. an instructional system
3. a major subsystem of the university (i.e. a systematic curricular planning approach)
4. a medium of student development
5. an analog to the structure of knowledge.

Toombs and Tierney (1993) developed a definition of curriculum as the entire educational program of an institution, the “locus of corporate responsibility for learning that engages faculty, trustees, administration, and students. The curriculum encompasses all the sectors of the institution involved with the process of teaching and learning” (p. 2).

The role of curriculum in higher education reform cannot be underestimated; the curricula and pedagogy are essential contributors to an intentional learning community (Harvard, 2012). The Association of American Colleges (1990) cites an ineffectively designed curriculum as the major cause of the erosion of learning in the United States. Zemsky (2013) states that the solution to improving higher education is to establish an integrated and focused curriculum. This curriculum should be competency-based, one that explicitly substitutes demonstrable competencies for recorded seat time and a passing grade (p. 189). Arum and Roksa (2011) recommend a curriculum that is focused on what students are expected to do and that provides a broad, foundational knowledge of the arts and sciences. They maintain that such knowledge will be the backbone for lifelong learning and informed citizenship.
A large number of colleges and universities claim to have integrated, traditional curricula, but instead they offer a mixture of narrow-ranging, trendy courses. They require students to take coursework in multiple subjects that do not contribute to any structured major requirements. Such a course distribution system does not provide a true general education (Hart Research Associates, 2009).

The reasons for higher education curriculum losing its intended purpose and structure are many and diverse. Economic and employment trends encourage institutions to develop career-based curricula. Higher education has become a “shopper’s market,” in which students select institutions based upon factors often unrelated to learning. Administrators are interested in meeting enrollment goals and balancing budgets. One could argue that politicians, and indeed society in general, do not value education or learning sufficiently (Arum and Roksa, 2011). In addition, professors are underpaid, particularly in terms of their education and the value of their work, according to the American Association of University Professors (Thornton and Curtis, 2012).

When the curriculum is unstructured and students are permitted to select their own courses, students graduate with an incoherent, random list of courses that do not complement their high school education or what they need to learn to be informed citizens, effective workers and lifelong learners (ACTA, 2009; ACTA, 2014). In essence, students are developing their own curricula, and this is not productive.

**Conclusion**

It is commonly accepted by the Academy that curriculum establishes what students should learn and what faculty should teach. To a lesser extent, it has been asserted that curriculum affects the cost of providing and obtaining an education.
Ongoing curricular reform efforts are being implemented, but evidence of their success has yet to be researched. Although many efforts are being made to improve higher education’s performance through curriculum reform, specific measures of the curricular changes being made, the reasons they are made, the theories or models being used, and the anticipated or achieved student outcomes have not been confirmed. Moreover, while a few reform models claim to reduce costs, no current research studies examine the effectiveness of curricular reform on financial outcomes exist. This research will initiate research into these issues.
APPENDIX B: RESEARCH PLAN - DATA GATHERING AND ANALYSIS PROCESS

Improving Undergraduate Higher Education through Curriculum Reform


SQ 1 - What was the impetus for reforming the curriculum?
- What was wrong with the previous curriculum?
- Was the change driven by market forces?
- Were there changes motivated by external forces?
- Were the changes influenced by internal factors?

SQ 2 - What process was used in changing the curriculum?
- Who were the stakeholders involved?
- How were decisions made?
- What external sources of information were used?
- What were the sources of evidence that led to the decision?
- Were learning, pedagogy, or curricular theories considered?

SQ 3 - What changes were made to the curriculum?
- How is the curriculum designed?
- Were the learning objectives changed?
- What was changed?
- Were the course structures redefined? If so, how?
- Is the curriculum balanced, since it was unbalanced?

SQ 4 - What student outcomes were achieved?
- Are students better prepared when they graduate?
- How do we know?
- Have the graduation and retention rates improved?
- Are students more successful? If yes, in what areas?

SQ 5 and 6 - How have the changes impacted the University and what lessons were learned?
- What institutional changes have been made? (Financial, enrolment, faculty)
- What would you advise others?

Data Sources:
- External: PEDS, accrediting agencies, AAC&U, institutional websites, literature reviews, and other sources.
- Internal: Meeting minutes, syllabi, published curricula, student learning management systems, accounting systems, interviews with faculty, academic administrators, and students.

Data to be collected:
- Student LO: Processes and current published LO & syllabi, and meeting minutes
- Practical LO: Interviews with faculty, academic administrators, and students on understanding of LO
- Prior and current list of courses
- Evidence of pedagogy changes made
- List of models and theories used
- Evidence of using the theories & models
- List of assessment methods
- Evidence of achieving LO
- Instructional costs per semester per credit hour
- Cohort of full-time, first time students who started and graduated before and after change
- Amount changed to each student in cohort who started & finished before and after change

Data Analysis:
- Data will be coded and analyzed with Hyper Research software
- Information will be triangulated with information from multiple sources

Data Analysis:
- Financial Analysis

Finding Validation:
- Finding will be tabulated and institution asked to confirm
APPENDIX C: RESEARCH METHODOLOGY

It is commonly accepted by the academy that the curriculum establishes what students should learn and what faculty should teach. To a lesser extent, some experts assert that the curriculum affects graduation rates, student achievement, and the cost of providing and obtaining an education. Educators implement ongoing curricular reform, but evidence of success has yet to be researched. Such experts work to improve higher education’s performance by reforming curricula, examining the specific measures regarding curricular changes, evaluating why changes are made, the use of theories or models, and reviewing anticipated student outcomes. Moreover, while a few reform models claim to reduce costs, no research studies examining the effectiveness of curricular reform on financial outcomes currently exist. The primary objective of the research conducted as part of this dissertation is to identify the changes two institutions made to their curricula and the outcomes achieved as a result of those changes. As a secondary objective, the research seeks to explore the processes used in reforming the curricula and the lessons learned in doing so.

Research Design

According to Yin (2012), a case study method is appropriate when examining contemporary events and relevant behaviors that cannot be manipulated, and when the research includes direct observations of and interviews with the persons involved in the event. Yin further states that “How” and “Why” questions favor a case study approach; “What” questions are also suitable for a case study. According to Yin’s determination, this research was appropriate for a case study approach, since the questions explored in
this study were of a “How”, “Why”, and “What” type. In addition, Yin further suggests that one of the strengths of a case study is its ability to deal with a variety of evidence, such as observations, interviews, and documents.

Schramm (1971) asserts that the central tendency of all types of case studies is the attempt to illuminate a decision or set of decisions: why a decision was made, how it was implemented, and with what result. Given the strengths of the case study and the definitions cited, the case study is the best method for the exploration of the curricula reforms at the selected universities. The purpose of the study is not to determine the effectiveness of the curriculum reforms, but rather to examine and document the reforms so that higher education institutions may use this research as a reference on what other institutions have done and what their outcomes have been, and, if possible, make some comparisons.

The study used qualitative and quantitative data for examining the research questions, which were exploratory in nature. Data about each participating institution was gathered according to six basic questions, as indicated below. Information that was publicly available on the institution’s website or from other sources was acquired, as well as internal information provided directly from the institution. The information was then confirmed by other sources, such as websites, the Integrated Postsecondary Educational Data System (IPEDS), and self-studies. The data was analyzed and organized into groups representative of each research question. A preliminary report of findings for each institution was prepared and used to identify information gaps or information that needed to be confirmed.
The researcher then made site visits to each institution and met with individuals who participated in the reform, were knowledgeable about the changes made, or could report on the outcomes achieved. Meetings were held jointly or individually, depending on the role of the person/s involved. Alternately, a small number of interviews took place over the telephone or through correspondence if the individual being interviewed was no longer employed at the institution under study.

A secondary report of findings for each institution was prepared and sent to the institution for further verification and clarification. After taking into account all of the abovementioned input, the final study was composed.

**Site Selection**

Three primary criteria were used in selecting the research sites. First, the institution must have reformed its curriculum at least four years ago so that an examination could be made to determine if the curriculum was having an impact on students for at least one cohort. Second, the reform must have been comprehensive and implemented within a self-contained unit, e.g., an entire university, a complete school, or an independent department. Third, the reform must have impacted undergraduate students, since stakeholders place much emphasis on the lack of student learning at the undergraduate level. A detailed brochure explaining the study was sent to each of the universities when soliciting their participation.

The sites were selected in several phases. The first phase was to identify universities and colleges that had changed their curricula. Accrediting agencies across the United States, including the Middle States Commission on Higher Education, the Higher Learning Commission, the Northwest Commission on Colleges and Universities, the New
England Association of Schools and Colleges, and the Commission on Institutions of Higher Education, were contacted by email to inquire if any of their member universities had reformed their curricula. However, none of the accrediting agencies provided any such information. Next, higher education organizations, foundations, websites and publications, e.g., the Council of Independent Colleges, the Association of American Colleges and Universities, Presidential Perspectives, the Bill and Melinda Gates Foundation, the MacArthur Foundation, and the Council for Aid to Education, were reviewed or contacted to inquire about institutions that had reformed their curricula. From these sources, nine institutions were identified. All nine of these universities were contacted by email. Some had conducted partial reforms, others were just in the process of doing the reform, and still others did not respond. Four of the institutions that met the qualifications did respond and agreed to participate in the research. However, three of them later discontinued their participation. Of the four, only Abenaki University actually participated in the research.

Since the initial goal was to research at least two institutions, the researcher continued looking for others, this time by searching the internet. Through this process, four other institutions were identified and contacted, of which the Graver School of Liberal Arts at Epperton University agreed to participate.

Both of the participating groups have strong liberal arts-based curricula. They are relatively small, with estimated total enrollments between 1,100 and 2,400 for the academic year 2011-12. Although Abenaki University is religious based and the Graver School of Liberal Arts is public, both of the organizations are teaching institutions that
focus mainly on undergraduate education, and are accredited by the Middle States Commission on Higher Education.

This set of institutions is appropriate for the study for several reasons. Their relatively small sizes minimize the complexities of analyzing a large amount of data and dealing with a large number of programs and personnel. Both of the institutions recently performed comprehensive reviews and reforms of their curricula, effectively providing “fresh starts” for examining the effects of their reforms. At least one cohort of students has graduated under the new curricula at both institutions. Both institutions participated in self- and other studies, which facilitated the gathering of data and improved the reliability of the outcomes.

Research Questions

The phenomena examined varied between the two institutions based on each institution’s mission, goals, reform context, culture, and assumptions. As such, different research results were anticipated for each case study. The research questions considered in this study were therefore intended to be exploratory, typical of an ethnographic case study research. Despite this, a considerable amount of quantitative data was obtained to document the processes and outcomes achieved. Qualitative data was also obtained to gain insight into what the reformers were thinking as the curriculum was being reformed and as a means to confirm the quantitative data.

The following six questions guided this study:

1. What was the impetus for changing the curriculum?
2. What was the process used in changing the curriculum?
3. What changes were made to the curriculum?
4. What student outcomes were achieved?
5. How did the curriculum reform impact the institution?
6. What lessons were learned through the reform process?

Data Collection

Data was collected from various sources, including documents from each university under study, its website, IPEDS, and interviews. Using multiple sources of evidence allowed the researcher to obtain a comprehensive account of the reforms and confirm the data through triangulation. It also allowed him to gain insight on the experiences of the faculty and the leaders of the curriculum reform.

The researcher collected information first from IPEDS, then from each university’s website, and, finally, directly from the university, which were used to build a database of information for each institution and prepare a site-findings report. The site-findings report that was prepared for each of the institutions prior to visiting served as a guide to identify the additional information needed and as a means of triangulating the information obtained through the documents received from the university, other sources, and interviews.

The following list of documents and information were reviewed in advance of the interviews.

- The university’s history, mission, vision, and values
- Strategic plans
- Previous curriculum and course offerings
- History of the university
- New curriculum and course offerings
- IPEDS data
  - Graduation trends
  - Entrance examination trends
  - Admission selectivity trends
  - Instructional cost trends
  - Enrollment trends
- Documents regarding the reform provided by the university
- Self-studies

**Interview Participants**

The researcher worked with each institution to identify which participants to interview. Participants were required to have been involved in the curriculum reform or to have personal knowledge about the reform or outcomes.

At the Graver School of Liberal Arts at Epperton University, the following persons were interviewed:

- Associate Provost of Academic Affairs, Professor of History at the time of the reform
- Special Assistant to the President, Institutional Effectiveness and Assessment, former student
- Chair and Associate Professor of Philosophy, member of the committee that implemented the reform
- Dean of the Graver School of Liberal Arts, member of the committee that developed and implemented the new curriculum
- Professor of Philosophy, member of the leadership team that developed and implemented the new curriculum
- Assistant Vice President for Enrollment Management
- Former Associate Dean, one of the leaders who guided the development and implementation of the new curriculum
At Abenaki University, the following persons were interviewed:

- Associate Provost and Dean of the School of Arts and Sciences, Professor of Music at the time of the reform, one of the faculty that let the curriculum reform

- Associate Dean of the School of Arts and Sciences, developer of the assessment results recording system

- Dean of Global Programs, Professor of Modern Languages, involved in the development and implementation of the GO Program

- Professor of Philosophy

- Associate Professor of Biology

- Associate Professor of Math and Computer Science

- Associate Professor of Information Systems

- Associate Professor of Religious Studies

- Provost and Professor of History, provost who led the reform

- Vice President of Finance and Administration

- Chair of Biology, Professor of Biology, a faculty member leading the reform

- Special Assistant to the Registrar

- Director of Institutional Research and Assistant Provost, Assistant Professor of Philosophy

Although a set of interview questions was developed in advance of each site visit (see Appendix C: Interview Protocol and Documents Needed), the protocol was changed or modified based on the interviewees’ responses or other information that become known during the interviews. All of the interviews were approximately 60 minutes in length and were held at the research sites. All of the interviews were recorded and transcribed. The information was then consolidated into groups relevant to each research question and entered into the data base developed for each university.
Data Analysis

The data received was analyzed depending on its classification. For example, IPEDS data, which was quantitative, was analyzed for trends and changes. Graduation rate trends were analyzed to determine if there were any major changes in the graduation rates after the curriculum reforms. The percent of instructional and academic support expenses as a function of total expenses was analyzed to determine if there were any obvious changes after the reforms. The entrance test scores and the selectivity of entering students were reviewed to identify any major changes in students applying and enrolling.

Qualitative data obtained though documents from the university, websites, and interviews, was entered into a data base and organized into categories based upon each research question. Each of the groups of data was compared and triangulated for accuracy. Conclusions could then be drawn in formulating answers to the research questions.

Afterwards, the secondary findings report was completed and sent to the contact person at each institution to be reviewed for accuracy. At the Graver School the contact person was the dean of the school. At Abenaki the contact person was the provost. Each reviewed the data in consultation with the other participants, and, if required, requested that corrections be made. These requests were few and the researcher complied with all of them.

Research Quality Assurance

According to Kidder and Judd (1986, pp. 26-29), the quality of an empirical social research (in this instance, a case study research) can be measured by its construct validity,
internal validity, external validity and reliability. This research meets the qualifications appropriately, with the limitations noted below.

The construct validity of this case study research was accomplished by using multiple sources of information (IPEDS, self-studies, university websites, documents provided by the universities, and interviews), establishing a sequence of events (a chronological sequence compiled with the information provided by each university and obtained from third party sources), and asking each of the participating universities to review the final reports for accuracy.

Internal validity was not a main component of this research. According to Yin (2009), internal validity is predominantly applicable when the researcher is trying to explain how and why one event led to another event. The primary focus of this research was not to identify causality, but rather to document the reforms and reported outcomes at each institution. As such, this criterion was not as critical as other criteria.

Likewise, external validity was not a critical component. The main criterion of external validity is the process of generalization (determining if results obtained from a small sample group can be used to make predictions about a larger population). The purpose of this study was not to test a theory or generalize an outcome, but rather to document outcomes and determine if the findings coincide with established postulates. An additional purpose was to document the outcomes in order to perform a comparative analysis, noting similarities and differences between each institution’s outcomes. On a limited basis, the study aimed to confirm existing theories of the impact of curriculum reform.
Reliability requires consistent, repeatable measurement. To assure reliability, a research plan and pre-interview protocols were developed for each question posed during the interviews. In addition, a data base of all of the information collected from IPEDS, the universities, websites, interviews, and other sources was developed and used in the preparation of the findings reports.

**Limitations**

The findings are limited to the accuracy of the self-reported information provided by the university and the interviewees. The researcher did not verify the data obtained from the university except to confirm the data with what others were saying and with the information in IPEDS—which, again, is self-reported. The goal of this research was not to confirm the *accuracy* of what universities are reporting about their curriculum reforms, but rather to *document* what universities are reporting about what they did to achieve their curriculum reforms and their outcomes.

An additional limitation is that only two institutions were investigated, which restricts the ability to reach comprehensive conclusions regarding the impact of curriculum reform. Moreover, what may be effective for a relatively small teaching institution may not be as effective for a large, public, research institution.


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