DEVELOPING A COLLEGE-READY CULTURE:
A CASE STUDY IN LEADERSHIP AND CHANGE AT A SMALL URBAN HIGH SCHOOL

A thesis presented

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Abstract

Developing a comprehensive high school curriculum is a difficult task; doing so in a school of almost 1,800 students representing a broadly diverse community can be a substantial challenge. The site of this study is the single high school of a historically industrial small urban city (population 42,000+) in New England.

Several years ago, after re-writing its mission and vision statements, the high school faculty took substantial steps toward creating and implementing a comprehensive college-ready curriculum. In addition, they determined to nurture a culture grounded in the concept that all students will go on to some form of post-secondary training or education.

This study will examine the process behind the development and implementation of a curriculum and lesson protocol designed to provide every student with the skills and the intellectual foundation necessary to enroll and matriculate into a degree-granting post-secondary higher education institution with no remedial course work required. Thus, the primary research question this study must answer is: What specific steps did one particular school take to develop needed college-ready skills, assess its progress toward improvement, and ultimately, change the culture from one of relative complacency to one of determined improvement?

A case study approach will be applied. An examination of the efforts made will provide the context throughout the study. For the purpose of this study, the term “college-ready” will be applied to all post-secondary higher education, training, or instruction.
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Dedication

I dedicate this effort to my family. Without their unwavering support I would never have seen this day.

To my dad, Dennis Janicki; the best educator in my life, thank you. I hope I can be equal to the foundation you have set.

To the best editor anyone could have ever asked for - my mom, Mary Janicki. I pulled you out of retirement for this one.

You two should take some time off. Maybe go to Ireland or something.

To Patrick, Molly, and Thomas; you are everything to me. Of course now I am going to help with your homework more often. But first we are going to make time to play catch and run around the backyard.

Most importantly, none of this would ever have been possible without the love and support of my wife Jenn. I wish I was a poet, for I cannot begin to express how much I love you. Thank you for letting me pursue this effort. I have missed far too many bedtime stories and have escaped emptying the dishwasher for too long. Neither “acknowledgement” nor “dedication” is enough to equal the support you have given me.

LUM.
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Chapter 1

“In a global economy where the most valuable skill you can sell is your knowledge, a good education is no longer just a pathway to opportunity – it is a prerequisite...And so tonight I ask every American to commit to at least one year or more to higher education or career training.” (Obama, 2009)

In order to ensure that students are effectively prepared for post-secondary education, secondary schools must first adopt a set of principles and goals that identify a series of comprehensive experiences that will facilitate the development of the knowledge and the skills that all students require. In today’s global market, a college education is increasingly seen as a basic credential for job acquisition. A case study approach to the topic of student preparation for post-secondary education will reveal how one small urban high school strengthened its college preparatory program and increased the number of high school graduates who can successfully make the transition to college. This case study will identify successful practices and provide a model for similar schools and districts, an effort that has not been undertaken in previous studies. The research will center on the role of a school’s practices that impacted and altered the cultural environment, resulting in an environment focused on developing students with the academic knowledge and skills needed to be successful in post-secondary education.

The name “Edgewood High School” and the municipality of the “City of Edgewood” are both used as pseudonyms for the actual site of this study.

Purpose of Study
A fairly large (1700+ students) high school will serve as the center of this investigation. The research investigates two specific areas. The first will identify the skills and knowledge that pertain to college-readiness. The second will assess how curriculum design enables the development of both the identified skills and content knowledge needed to support college readiness. Looking at the cultural change undergone by Edgewood High School through these lenses will contribute to a comprehensive understanding of the curricular and instructional qualities needed to successfully turn a school around in terms of college-readiness.

Research and practice have clearly demonstrated that demands on current students who will be seeking employment include critical and analytical thinking skills, leadership skills, and an awareness of social responsibility. All citizens in an innovative society must contribute to the communal goal of local and national progress. The best way individuals can achieve this is through productive application of their talents and abilities developed in an education system designed to prepare students to meet any challenge they may face. During the time of this study, the goal of every decision regarding teaching and learning made by both teachers and administration was to develop graduates with these skills and abilities.

Statement of Problem

The City of Edgewood can be described as an eclectic community. There is a wide range of diversity in terms of socio-economic status, nationality and ethnicity, educational background, values, and other social measures. Consequently, the diverse
student population presents a challenge for educators who are charged with ensuring that all students meet their full potential and are fully prepared for all post-secondary options.

As the single public high school in a city of 42,000+ citizens, Edgewood High School enrolls approximately 1,700+ students from a broad demographic range. Historically, the local community has been critical of its schools for a variety of reasons including low Massachusetts Comprehensive Assessment System (MCAS) scores and a low rate of college success. In the most recent years, as a result of the improvements to be described here, there has been a more positive sentiment and pride in Edgewood High School. This finding is derived from comments of those interviewed.

At Edgewood High School before 2005, there was little emphasis on developing college-readiness in all students. Students in the top 10% of the class had access to challenging courses aspiring to higher education, but few other students received the access to the level of challenging curriculum. Most students’ post-secondary goals prior to 2005 did not include an awareness of college-readiness. There is little evidence to verify that all students were encouraged to pursue post-secondary education. The concept of 21st Century Skills was still a few years off on the horizon. Teachers’ educational resources were limited to textbook materials and supplies. Developing critical or creative thinking skills was not an emphasis. Certainly students were not encouraged to take a more rigorous course load. Indeed, in some cases students were discouraged from enrolling in honors or Advanced Placement courses, course work that would have helped build college-ready skills.
In 2005, an internal focus group of faculty, administrators, municipal government officials, and parents met to address common concerns and, in the process, collected empirical data on the state of the school district for the incoming superintendent. The resulting report mentioned challenges to the school community including low public opinion, yet it recognized the high potential for student success derived from the strength and quality of the faculty and staff and their desire to make improvements (Focus Group Report, 2005). While the faculty was generally praised for its dedication, the results of their efforts were still a concern. The data collected showed that of the Class of 2009, only forty-two percent of the students reported they would continue their education at a four-year college or university, twenty-five percent reported planning to attend a two-year school, and seven percent reported planning to attend a technical program. In total, only seventy-four percent of the 413 students reported they intended to continue their education beyond high school (School Profile, 2010). Data that were not collected as part of the senior exit survey include information about the level of college course work, matriculation into a degree program, and eventual completion. This was the beginning of the focused effort to change the culture of Edgewood High School, to expect more of all students, to motivate higher levels of learning and to raise the level of college-readiness.

Much of the subsequent work between 2006 and 2011 was designed specifically to respond the Focus Group Report by altering Edgewood High School’s academic culture. While academic rigor has always been the implicit primary thrust of Edgewood High School’s educational program, the explicit expectation that a cultural shift prioritizing productive post-secondary plans has had a major impact.
Intellectual goals. As national, state, and local accountability increases, the expectation to develop more effective classroom environments also increases. The Internet supplies limitless volumes of ideas and concepts that detail how to improve education systems, individual teachers are moved to develop more effective classroom environments. In this process, the translation of federal regulations to state frameworks, to school committee interpretation, to principal leadership, and to classroom application in instruction is often varied, resulting in diverse modes of instruction, each believed to be the ‘best’. Given the history of American education, there will always be different interpretations of how schools should implement these divergent ideas. Through study, experimentation and practice, leaders in education develop and implement instructional strategies and expectations believed to result in producing thoughtful and productive adults who can contribute to the greater society. The current Edgewood High School effort focused on “college-readiness” is one manifestation of this effort that reflects higher expectations on the national, state, and local level. Edgewood High School reflects the belief that all citizen-students should be prepared with the knowledge and skills to participate successfully in post-secondary education.

As such, an intellectual goal of this study is to understand those practices that result in school-wide awareness of the importance of preparation for post-secondary education and the expectations required to be fully prepared. By studying Edgewood High School’s implementation and the action steps taken, this research will articulate clearly the essential elements needed to change the culture of an under-achieving high school.
Practical goals. Edgewood High School has witnessed numerous transitions over the past ten years. These transitions included changes in administration and teaching staff as well as changes to organizational structure, lesson development, and teaching itself. Over this time my role throughout the school evolved as well. I grew from “going to work,” to coaching athletics, to developing new initiatives, to membership on the Edgewood High School steering committee. Through my involvement with the students, parents, and their joint college search processes, I have had many opportunities to discuss higher education goals and plans and to participate in the decision-making process to change Edgewood’s culture.

Planning for college requires a long-term commitment to a goal. A practical objective of this project was to develop a roadmap for students in pursuit of that goal, a tangible outcome that could be looked at as a model for others. This goal became a core value for the student body and the entire staff of the school. Other schools may use the material presented throughout this study as a guide to creating a school in which every student’s college-readiness is increased. The research also provides information to improve both student and parent understanding of the steps needed to become increasingly more prepared for post-secondary education.

Testing. Where the traditional college entrance exam SAT or the Advanced Placement exam are not taken by all students nor are the test results used by all colleges, the Massachusetts Comprehensive Assessment System (MCAS) can be looked at to provide a broader picture. The Massachusetts Department of Education (DOE) (now called Department of Elementary and Secondary Education, DESE) published results for the MCAS show an increase in performance over the course of this study. Over the
course of this study it is documented that the number of passing scores have increased and the number of failing scores have decreased (DOE, 2011). The aggregate measure of Adequate Yearly Progress (AYP) shows that Edgewood High School has met established goals. Over the same time, SAT and AP results increased as well. Not only have scores increased, but as the push for increased post-graduation plans, the number of test takers increased as well; which itself is an indicator of student interest in attending college. Data from student participation and results of these tests will be used as an indicator of the decisions and efforts focused on developing college-readiness.

_{No Child Left Behind.} The “No Child Left Behind Act of 2001” (NCLB) was enacted by the 107th Congress and signed into law by President George W. Bush. The primary goal of this national effort was to improve the academic achievement of students, as well as the training and accountability of teachers (US Public Law 107-110, 2002). The law established deadlines for meeting student proficiency in math, English, and science. As will be explained in chapter five of this study, the Edgewood High School administration firmly believes that a high level of expectation for meeting NCLB proficiency standards has been established and has become more deeply integrated with each passing year as evidenced by the district’s AYP, a statistic established by NCLB as a measure of a school’s performance. AYP is derived from the results of annual testing. In Massachusetts, the MCAS serves this purpose and Edgewood High School has seen annual progress.

The annual superintendent reports and school profiles developed in the years 2005 - 2011 show that Edgewood High School has made substantial progress toward strengthening its leadership, instructional practices, and opportunities for students.
Moreover, the school is now recognized as a potential leader among secondary schools for the level of its commitment to developing college-ready students and for successfully addressing President Obama’s proposal that all citizens gain some form of higher education (Obama, 2009). Upon visiting Edgewood High School in the spring of 2011, the commissioner of the Massachusetts Department of Secondary and Elementary Education praised the school for making substantial strides in developing successful students and graduates in numerous post-secondary pursuits as reflected in rising scores and post graduate plans.

**NEASC accreditation.** Schools in New England are regularly evaluated and accredited by the New England Association of Schools and Colleges. The guidelines and standards of this organization set high standards for all schools. Two of their key standards that were influential in the goals that Edgewood High School adopted are stated below:


The quality of instruction in a school is the single most important factor affecting the quality of student learning, the achievement of expectations for student learning, the delivery of the curriculum, and the assessment of student progress. Instructional practices must be grounded in the school’s mission and expectations for student learning, supported by research in best practice, and refined and improved based on identified student needs. Teachers are expected to be reflective
about their instructional strategies and to collaborate with their colleagues about instruction and student learning.

Standard Five focuses on leadership and organization:

The way in which a school organizes learning for students, fosters leadership, and engages its members have a profound effect on teaching and learning. The professional culture of the school must be characterized by thoughtful, reflective, and constructive discourse about decision-making and practices which supports student learning and well-being.

In response to the standards set by this accrediting institution, faculty and administrators at Edgewood High School invested time and effort focused on increasing the effectiveness of the curriculum and implementing research-based teaching strategies. The drive to meet NEASC accreditation standards was an important factor in Edgewood High School’s success in its effort to change the level of achievement by changing the culture.

**Significance of the Problem**

As stated earlier, all students who expect to enter college, the workforce, military service, or technical training must be fully prepared with the appropriate knowledge and complementary skills. It is the role of the K-12 school system and all of its stakeholders to provide students with the opportunity to develop these skills so that students’ goals and aspirations can be attained. All too often, students graduate from high school only to find that their next educational step, college, demands a skill set they lack (Conley, 2005). They are not prepared for the demands of a college curriculum and are consequently
placed in remedial classes. College professors across the country indicate that incoming freshmen students do not possess the most basic skills needed to be successful (Conley, 2005). Too frequently, such has been the case in Edgewood exposing a problem that demanded a solution.

For a school to develop a highly successful approach to education, the faculty and the school’s leadership team need to address curriculum from a broad perspective. The very environment of the school should be considered part of the implicit curriculum. We know from research and from experience that students enrolled at schools that have proven to be high powered, high functioning schools understand they must work hard to thrive in that environment. Developing such an environment takes time. It is cultivated over years as seasoned teachers pass along their experiences and approach to newer teachers. Such an environment comes from strong leadership and clear, high expectations - expectations that permeate the daily infrastructure of the students’ lives. Prior to 2005, neither the overall culture nor the academic expectations for student achievement at Edgewood High School were sufficient to meet the needs of students in today’s world. This was the problem and goal that challenged the leadership at Edgewood High School.

In 2009, a steering committee was formed to discuss and eventually propose program and organizational changes. Chaired by an assistant principal with membership sought from faculty, this committee has taken the opportunity to discuss, propose, and implement changes focused on improvements to the educational environment and student outcomes. As of the 2011-2012 academic year, this committee is still actively working.
Research Questions

There is one overarching question this case study attempted to answer: What specific steps did one particular school take to develop needed college-ready skills, assess its progress toward improvement and ultimately, change the culture from one of relative complacency to one of determined improvement? To address this question, it was important to recognize how the emphasis on the balance between content knowledge and skill development in instruction support the development of college-ready students. This study also addressed a second related question: What organizational structures and programs did Edgewood High School use to address the need to enhance college-ready skills and awareness in all students? These questions get at the heart of secondary school goals, ensuring that the curriculum, instruction, culture, and environment work together to produce strong graduates who are both motivated and able to function in a global economy through successful admission into post-secondary education programs. Information derived from the primary research questions will provide insight into Edgewood High School’s efforts to balance teaching content knowledge and skill development in the formal curriculum. In addition, it will demonstrate how a more balanced and challenging approach acquired the faculty’s commitment to change and willingness to follow agreed upon practices. Finally, the research will reveal how the critical curriculum design changes were accomplished.

This research aspired to uncover information that other institutions might be able to use to develop their own college-ready curriculum. Specifically, they should be able to trace the smaller steps secondary schools have taken to implement an organizational framework that produced a higher level of college-readiness. For example, at Edgewood
High School, the redesign of mission statements, house models, class schedules, and student expectations for learning are believed to have contributed much to the overall change.

**Theoretical Framework**

Since the primary goal of this case study was to investigate the narrative framework of a school’s approach to improving achievement, it was critical to investigate the development and history of specific applicable theories. It appears that the pedagogy in place at Edgewood High School will best be understood through careful analysis of classical and progressive theory. Two of the most compelling theorists in the development of high school theory and college-readiness in recent years are E.D. Hirsch, representative of classical theory, and David Conley, representative of progressive theory. These educators’ thinking derives in whole or in part from early 20th century theorists William Bagley and John Dewey and thus reflects a long tradition of both classical and progressive approaches. Their writings and those of others influenced by them will be discussed at length throughout the literature review.

A comparison of classical and progressive approaches forms the basis for the debate over the very foundation of the education system: what and how should teachers teach? It seems clear that knowledge without understanding is as deficient as higher order thinking skills without basic information. Edgewood High School adopted the belief that an appropriate balance must be reached and shared with students who will need to use both approaches and that each would contribute to raising achievement through balanced curriculum and improved instruction.
Achieving this balance became a driving force at Edgewood High School and, as stated earlier, one of the factors that would contribute much to a school culture committed to preparing students to succeed in post-secondary education. In the process of designing balanced curriculum, it is critical to first begin with the goal to identify what students need to understand at the end of a lesson, a unit, a year. This notion is considered fundamental to curriculum design by many school districts and is fully support by ASCD. It is called “Understanding by Design” (Wiggins & McTighe, 2005) or more familiarly, “backward design.” Central to the concept of backward design is the simple idea that if you know what your goal is you will plan in a way that will get you to that goal effectively and efficiently. So understanding first what the most important outcome is streamlines the planning process. This concept has been a key motivating factor in the efforts at Edgewood High School. To develop a student who is fully prepared for the demands of college, it is critical to first understand those demands. If the desired outcome is a school culture that supports college-readiness, then everything, i.e. mission, professional development, curriculum and instruction, need to be explicitly designed to achieve that goal.

Developing a curriculum that balances skills and content knowledge will, by necessity, draw on multiple education theories. The curriculum design presented in this case study was created by faculty between 2001 and 2011 from a combination of both classical and progressive theories. The final products were organized using the structure provided by Wiggins model. Classical education theory was used to underscore the importance and influence of content knowledge; while progressive theories were utilized in the investigation of the development of skill application.
Divergent theories. William Bagley and John Dewey are considered the fathers of American classical and progressive education theory respectively (Null, 2003, Bertrand, 2003, and Tyack, Anderson, Cuban, Kaestle, & Ravitch, 2001). Both educators developed their approaches in the early 20th century during times of great economic prosperity and the subsequent Great Depression. In the early part of the 20th century, economic, cultural, and societal factors were all brought to the forefront of the discussion as the demographic landscape of the country was in the midst of a great shift. Both Bagley and Dewey contended that education must play an essential role in the propagation of American culture (Dewey, 1916, Bagley, 1912 and Null, 2003). However, these theories quickly diverge in their central focus. The discussion and application of theory will begin with a review of classical thought.

Classical theory. Classical education theory is solidly based in the belief that a curriculum should focus on content. Compartmentalizing additional subject areas is not the key to education reform. A renewed spotlight on the “corpus of general instruction” is also basic (Bertrand, 2003). The traditional understanding is that skills are acquired successfully only through prior possession of contextual knowledge; that comprehension is the ability to construct a situational model based on a framework (Hirsch, 1996).

In a classical education approach, teachers present less complex materials at an early age with the goal of building towards more complex lessons. Students learn traditional subjects (mathematics, language, sciences) within a traditional framework (Bertrand, 2003). While it may not take the form of rote memorization, there is a clear distinction between classical and more creative learning forms. Students can build on knowledge only after mastering pre-requisite material. Knowledge is valued for its own
sake and not as an instrument for systemic study. Students are to be taught what is necessary and what will be expected of them outside of the school environment. There is no need “to sugar coat it” (Bagley, 1912). These concepts are later expanded and incorporated into Hirsch’s Core Knowledge approach. Classical theory emphasizes that students learn content rather than understand a process; the goal of all class projects and activities should be acquiring content knowledge (Null, 2003).

Using Hirsch as a point of reference, classical education theory will be one of the key components of this discussion. Hirsch has written extensively about the need for a common, American curriculum so that the American culture can meet the challenges articulated in *A Nation at Risk*. His challenge for education reform is to renew the commitment to traditional values and materials that connect the American public.

Communal education promotes the communal good. In the 1990s, Hirsch developed a description of specific content that children in each grade should know. Hirsch contends that without this foundation it becomes increasingly difficult for a student to incorporate facts and information presented in the future. In addition, he strongly asserted that without a common core of knowledge the American population and culture suffer. In developing the “Core Knowledge Foundation”, Hirsch has brought these constructs of education to an organized framework. Stating that “the more you know, the more you are able to learn,” (coreknowledge.org, 2011) Hirsch is a leader in content driven, classical education.

**Progressive theory.** Somewhat contrary to the classical approach is the concept that school is not always about academic proficiency but rather, that education builds understanding and collaboration across academic disciplines. John Dewey led the
development of the progressive educational theory. Where the content material is essential in the first place, the process and development of applicable thought is the central tenet. John Dewey also recognized the pragmatic relationship between democratic society and education. He viewed society as a common people with common aims who should first be educated in a common system (Dewey, 1915). American culture is reinforced through a common American education. Dewey also said that “knowledge is no longer an immobile solid; it has been liquefied” (Dewey, 1916). This, in turn, is one of the points of the so-called 21st Century Skills.

As a reaction to the classical design, progressive theories developed out of a perceived need to include a sense of liberal knowledge and methodology. This includes developing intellectual skills and establishing interdisciplinary studies. Critical thinking skills are a foundational component of progressive theories because they provide the ability to understand or arrive at the logical conclusion of a problem. The ability to engage in such activity is a teachable proficiency.

As a leader in the field of developing college and career readiness, Dr. David Conley founded the Educational Policy Improvement Center (EPIC) to be a resource for educators who wish to understand how they can improve the post-graduation prospects of students. Recognizing the ever-changing demands of higher education, Dr. Conley’s research and resources provide insight into how students develop the skills and knowledge that will be required of them upon enrolling in college.

21st Century skills. More recently, a project called 21st Century Skills that promotes the development of skill-based knowledge harkens back to John Dewey. The
theory behind this project contends that without the ability to think analytically or to deduce a well-developed opinion on an issue, facts and figures learned in the classroom are never given the opportunity to come to life. More to the point, proponents contend that critical skills such as collaboration and media literacy are not learned in the way that facts and figures are and are rarely addressed in secondary school curriculum and instruction. The central idea of embracing the strategies defined by 21st Century Skills is more than teaching the use of technology. It is teaching anticipation and management of resources, information, and material.

Where classical theory has a strong emphasis on the past, progressive theory brings the focus to the present (Bertrand, 2003). Modern education reform considers the progressive state of the global community and the extent to which our education system prepares and meets the needs of tomorrow’s leaders. Just as in the publication of A Nation at Risk, Thomas Friedman’s The World is Flat (2006) demonstrates clearly how America has lost ground as a global leader. Our approach to education is cited as one of the causes. One of the main principles behind teaching “21st century skills” is to develop students’ critical thinking skills. When students learn how to formulate the appropriate question, they gain a broader, more focused understanding. They can then ask the next series of probing questions. When content, skills and critical thinking come together, the foundation is present for the future success of our students.

Through the work of Hirsch, Conley, and others, these two approaches to American education have been influential in the more recent past. Both classical and progressive theories offer some insight into what schools like Edgewood High School need to consider as they begin the journey to richer curriculum instruction, and more
challenging expectations. The first approach requires students to learn established and specific facts that, according to E.D. Hirsch’s *Cultural Literacy* (1987), comprise basic and essential information. Lack of this foundation is, according to Hirsch, the greatest shortfall of modern American education (Hirsch, 2009). The second approach, developed as a progressive theory, involves the development and application of thinking and learning skills to the content learned. This concept is promoted by the national organization *Partnership for 21st Century Skills* (www.p21.org). The understanding is that without the ability to apply content, that material may not find a relevant application. Edgewood High School faculty and administration are working under the assumption that a combination of these two approaches provides the most effective environment for developing college-ready graduates.

Within the framework of this paper, progressive education theory begins where the classical approach leaves off. By adding the component of teaching ‘skills,’ the progressive theory attempts to support the application of material knowledge. How the classical and progressive theories are integrated will be the subject of this project’s review of instructional design theory. As stated, one of this project’s goals is to identify how schools can develop students’ college-readiness skills in the secondary school. Therefore, we must understand how various forces affect the delivery of the secondary school curriculum. The efficacy of the delivered lesson can be measured, but its design must first be examined for content and purpose.

This doctoral project addresses the issues laid out in the opposing education theories referenced above. Because education is a “dynamic” endeavor requiring give and take among (1) students, (2) the society, (3) content, and (4) the learning environment
(Bertrand, 2003), it is important to anticipate how college-readiness evolves. There must be an appropriate balance between content knowledge and skill building. Therefore, this study will account for the dynamic nature of how these four elements interact within the education system that evolves within the global 21st century environment.

Finally, in the context of how the introduction of higher learning expectations that achieve the balance discussed above actually get realized, this study will look at the entire process and product through the lens of the Edgar H. Schein’s theories, whose scholarship focuses on the role of culture in organizations. He defines culture as a set of assumptions shared by a group, such that, after integration and adaption, these beliefs are considered valid, and then introduced to new members of the group as the implicit and explicit function of purpose (Schein, 2010). Using this concept of culture as a guide, this study will identify both how the leaders at Edgewood High School developed and implemented a college-ready culture that resulted in profound change in the school’s ability to graduate students with far greater chances of succeeding in college.

**Research Design**

A case study design serves as the platform for this study. The questions asked throughout this study focus on the “how” and “why” of college-readiness at Edgewood High School. These questions are most appropriately answered using the case study approach (Yin, 2003 and Maxwell, 2005). Recognizing that a supporting focus is that of the development of curriculum within the school culture, a case study provides greater opportunity to investigate phenomena and personal interactions (Creswell, 2009).
However, this paper does not propose to determine the level of college-readiness of Edgewood High School students. No prior baseline measure of college readiness in former students at Edgewood High School has been established. The only accounting for post-secondary activity involves the direction in which students go (i.e., college, work, military). Therefore, there is no way to assert that current students are any more or less college-ready than former students. Rather, this case study uses empirical evidence to show how one school recognized a need to improve the level of college-readiness and describe the process by which it was achieved.

As an embedded researcher, it will be important for me to recognize my own proximity to the subject and identify and eliminate any bias. This study must also avoid the assumption that all students are in fact successful in their post-secondary plans, in the case where there is limited quantitative data regarding the post-secondary success of Edgewood High School graduates. Rather, this study will investigate the development of education practices focused on college-readiness.

Lincoln and Guba (1985) provide a framework for establishing trustworthiness and validity throughout the study. Concerns for “internal validity,” “external validity,” “reliability,” and “objectivity” are addressed.

A variety of data sources provide empirical evidence. These resources include meeting agendas, professional development outlines, NEASC reports, and internal communications. Explicit resources will also include taped interviews of students, teachers, and administrators. Coding of data will follow established protocol as well. As data has been collected from a variety of sources, it serves a variety of purposes.
Maintaining consistent notes of data and its application is a critical step. Memos will be kept as a form of record keeping and interviews will be charted within a spreadsheet referencing questions and topics.

All university established protocol and expectations have been followed. Proper documentation has been submitted and approved.
Chapter 2

Literature Review

This project is designed to identify effective processes that improve the development of college-ready skills. The literature selected provides both foundational understanding and insight into college-readiness. Material used includes research articles on trends in contemporary education systems, comprehensive seminal works focused on college and career expectations, and corporate, foundation, or government funded research and reports.

This review is based on research on curriculum development, leadership, and culture and change. A number of educational studies address the particular issue of how a school can teach core content knowledge in ways that enhance the development of certain critical skills. The combination requires leadership, effective ways to implement change, curriculum development, and instructional design. The works of research for this study were reviewed in the context of the efforts at Edgewood High School.

Brief Description of Major Works

Much has been published in recent years about the concept of college-readiness. Two scholars in particular have proposed differing approaches: E.D. Hirsch Jr. and David Conley. In the 1980’s, Hirsch began his push toward education reform through American cultural literacy. With the publication of Cultural Literacy: What Every American Needs to Know and his founding of the Core Knowledge Foundation, Hirsch rekindled interest in the works of Thomas Dewey and Thomas Jefferson. Hirsch’s efforts have generated a school of thought and pedagogical design. His promotion of standardized benchmarks
through his book series, *What Every First (Second…) Grader Should Know*, and his strict adherence to grade level standards will be subjects of this study.

David Conley is another leader in the study of college-readiness. Conley emphasizes skill development. Through his studies, funded by the Gates Foundation and the University of Oregon, he argues for the need to develop critical and analytical thinking skills. Bernie Trilling and Charles Fadel also support the movement towards teaching thinking skills and have written *21st Century Skills: Learning for Life in our Times*, that describes how and why these skills should be taught. Trilling and Fadel’s work is more helpful when read along with Tom Friedman’s *The World is Flat*. In this important look into how technology has led to the globalization of society, he discusses the roles that education and technology play in the development of society. An education system that incorporates a clear appreciation of modern workplace needs should be designed to provide an appropriately prepared workforce.

Government agencies and private corporations have sponsored studies and reports on this topic that have also been reviewed for this study. One such effort is the national effort by the National Governors Association and the Council of Chief State School Officers. Their work has led to the 2010 release of the *Common Core State Standards Initiative*. This initiative provides a significant opportunity for states to collectively reform education through rigorous content and skill development. While they are not national standards, criteria intended for state-by-state adoption can have national implications. One of the central roles of the initiative is to align K-12 education with college and work expectations, development of higher-order skills, and international benchmarks.
Prior to the development of the common core initiative in 2010, the U.S. Department of Education together with the Institute of Education Sciences released a guide in 2009, *Helping Students Navigate the Path to College: What High Schools Can Do*. This guide provides proposals for high schools to implement a curriculum designed to increase access to post-secondary education. The guide provides data sets and specific recommendations to support a college-educated culture. This government report, used in conjunction with other research, can be a valuable resource to support findings and develop college access strategies.

**Organization of Literature**

To investigate the comprehensive nature of college-readiness effectively, the literature review takes a comprehensive approach. There are five essential fields of focus. The first provides a clear understanding of college expectations and the high school curriculum needed to meet those expectations. The second and third fields identify the specific intellectual knowledge and academic skills needed. Fourth, the review examines the high school classroom and the delivery of curriculum. A fifth and final section reviews what the literature says about how a student combines these elements to achieve success in the post-secondary world. Using this framework, the discussion comes full circle with a look at what colleges expect from its students and how a student demonstrates those required skills and abilities.

Within this structure, it will be important to document Edgewood High School’s organization. The school’s leadership has introduced a focused decision-making process that encourages curriculum improvements and post-graduate goal setting for students.
The literature’s discussion of the concepts of leadership, organizational structure, and curriculum design will frame the process in which Edgewood High School developed its college-ready environment.

**College Expectations**

Greene and Foster studied measures of college-readiness rates across the country. In their review of (1) graduation rates from numerous high schools across the country and (2) students’ transcripts along with four-year college entrance requirements, they calculated the percentage of students who graduated from high school and took the necessary college entrance course requirements. They found that only 32% of students in the study met all three criteria (required course work, graduation, and entrance requirements) to be considered college-ready (Greene & Forster, 2003). There are slightly over a million students each year who could graduate from high school but do not. Those who do not complete high school are likely to be less productive in the global economy.

High school programs across the country have been developed to provide the opportunity for students to graduate and become successful contributors to their communities. Some have addressed the issue of success from a socio-economic standpoint. Studies have shown that the relationship between success and development of performance skills is often based upon a student’s family income. The higher a family’s income, the more likely their child is to attend a better quality school with higher quality teachers and more resources, all of which combine to better prepare them with the skills to meet their goals (Kazis, 2006 and Kuh, 2007). With this understanding, some states
have begun to develop educational systems with a K-16 emphasis (Kuh, 2007). This concept, referred to as a “pipeline,” is a substantial shift that could aid in the smooth transition of students to college from a high school with a curriculum that meets goals and develops a productive skill set in all its students.

Some in higher education have criticized incoming students who are not prepared. They fault the K-12 system. However, that criticism is not always warranted. Colleges have been unwilling or unavailable to assist in the preparation process or even in the development of the college-ready concept in the first place (Reed & Conklin, 2005). State college systems should be playing a vital role in the development of articulations between high school curriculum frameworks and college expectations beyond their entrance requirements.

A high school curriculum must challenge and raise expectations beyond simple task completion. When college professors ask students to read conflicting articles and provide an analytical review, unprepared students may understand the conflict but are not able to articulate which is the correct viewpoint (Conley, 2007). Students must learn critical thinking and analytical skills early in their high school career so that they can develop higher level skills prior to enrolling in college.

According to Dewey (1916), the school should provide a fostering, nurturing environment. Children begin to learn even before they go to school; education begins at birth (Rousseau, 1762). While Dewey may have been the father of American progressive theory, Jean-Jacques Rousseau discussed many of these components of the earlier stages of life.
If this concept is to be considered in the development of pedagogy, then the school must be where the child is a central actor in his or her own education. From Rousseau’s 18th century philosophy to the development of “21st Century Skills,” progressive theory has consistently held that there is more to education than learning facts and figures.

Understanding is lost if learned material is not put into practice. Education of the individual benefits the common good. Rousseau maintained that the purpose of educating a child is to develop a reasoning man (Rousseau, 1762). Alexis deTocqueville argued that a successful democratic governing body comes from an informed, educated electorate who are “invested with the supreme authority” (Tocqueville, 1851).

The converse to this approach is Core Knowledge’s belief that “you can’t teach a student to think unless you have something to think about,” so says Georgann Reaves (Tyack, Anderson, Cuban, Kaestle, & Ravitch, 2001).

**Intellectual Knowledge**

E.D. Hirsch’s concept of Core Knowledge as a teaching strategy is based on the idea that knowledge builds upon knowledge (Core Knowledge Foundation, 2010). Ultimately, a common framework of academic material unites a culture. The number 1,776 is just a number to billions around the world. However, “1776” resonates in the heart of the Americans because of a common understanding, a common knowledge. But what does that mean? There is much more to teaching material than the building of community. The way it is put into context and used in a practical application is a vital component to this learning process.
Skill without foundational knowledge is ill-placed, and knowledge without applicability is lost. “Once students have gathered information and begun the analysis process, the most important skill for them to employ is critical reflection” (Conley, College Knowledge: what it really takes for students to succeed and what we do to get them ready, 2005). Any sort of skill application can only take place after the comprehension of intellectual knowledge.

**Skill Development**

“When men study words and not matter,” material knowledge is without context, “for words are but the images of matter” (Bacon, 1893). To apply an environment or context to the fabric that is learned in school is a critical component of education.

Educators have provided comprehensive lists of content knowledge and essential cognitive strategies that college-ready students should have. Conley (2007) presents key findings of “general characteristics” and “example performances” as a compilation of his and previous researchers’ conclusions. In general, Conley identifies twelve distinguishing traits that can be found in a student who (1) has developed a mastery of foundational knowledge and skills; (2) demonstrates an ability to objectively engage, interpret, and analyze new concepts and information; and (3) can present findings through the mastery of interpersonal skills and take constructive criticism. His list clearly shows the two central themes of the theories that are the basis of this study: foundational knowledge and skills.

In 1991, the U.S. Department of Labor commissioned a study referred to as SCANS (Secretary’s Commission on Achieving Necessary Skills). Employers and
managers understand that employees must assume more responsibility throughout the
economic market if they are to maintain a high level of competition in a changing global
market. Management constantly looks for highly qualified entry level workers who can
assume responsibility and meet expectations (O'Neil, 1997). The Labor Department
report has been a cornerstone in the development of current and future workforce
expectations and educational frameworks, and high schools rely on it as they develop
students who can meet these requirements.

One of the fundamental skills any individual must master is the ability to ask
pertinent questions. Not only students, but potential employees are being asked to
demonstrate that they can decipher information and learn the material which leads to the
next steps. Essentially, it is easier to teach content knowledge or technical matter than
information and the ability to understand and solve problems (Wagner, 2008). To do so
requires the school community’s implicit (i.e., lesson plan design) and explicit (i.e.,
culture) commitment to develop such an approach. Employers look for individuals who
can engage in dialogue, work in teams, and assume or follow leadership roles, as
appropriate.

Since Bloom’s “Taxonomy for Learning” outlined a process of six specifically
ordered steps – knowledge, comprehension, application, analysis, synthesis, and
evaluation, enhanced technology and societal changes have created a new model (Trilling
and Fadel, 2009). The terms have been updated but a bigger change is the concept that
these skills can be combined. There is not necessarily an established process underlying
this 21st century taxonomy – remember, understand, apply, analyze, evaluate, and create.
Rich learning environments provide the opportunity to present material and engage in prolific discourse.

**Classroom Environment**

Education seems to be in a constant state of reform. Seventy years ago, Thomas Edison believed that his motion picture machine was “destined to revolutionize our education system” to the extent that it could replace textbooks and teachers (Tyack and Cuban, 1995). While the film strip allowed teachers to present visual lessons, it was only the first step in integrating technology into the classroom environment.

Jon Saphier, through the consulting firm Research for Better Teaching (RBT), has laid out intriguing propositions for the development of leadership and classroom instruction. As with both the theory of Core Knowledge and 21st Century Skills, Saphier proposes that before students can significantly benefit from their classroom efforts, there must first be momentous changes in teaching practices (Saphier, 2010). Teaching is no longer limited to each individual classroom or specified lesson. Rather, the teaching and learning experience is universal. All children can be expected to reach an appropriate level of proficiency and all teachers must be held accountable for teaching. Appropriate strategies are malleable and shift to meet the unique needs of the individual student. Schools are judged to be “underperforming” not because students fail to meet expectations, but because teachers lack adequate expertise or training (Research for Better Teaching, 2005).

The model of efficient education begins with curriculum design. In order to produce a successful design, teachers must clearly understand the purpose of the lesson.
This practice is called “backward design.” There are three steps in backward design: (1) identify desired results, (2) determine acceptable evidence, and (3) plan learning experiences and instruction (Wiggins & McTighe, 2005). A successful school leader knows the importance of how and why material is being taught, not just what is being taught.

A student’s approach to academics is a better predictor of his or her potential for success than who they are or where they attend school. That is to say, what the student puts into “educationally purposeful activities” is the most effective predictor of achievement in school and life (Kuh, Kinzie, Schuh, & Whitt, 2005). If a student’s success can be measured by both the student’s time and effort on studies and the supportive resources the institution provides, then programs can be designed to encourage and develop such efforts.

Teachers who serve as mentors improve opportunities for student success. In a high school, the classroom is the center of the community. Where the roles of teacher and student are clearly defined, an advisory or mentoring relationship can develop outside of the academic forum (Kuh G. D., How to help students achieve, 2007). This principle has been added to the New England Association of Schools and Colleges’ indicators or standards for student success (New England Association of Schools and Colleges, 2010).

**How Students Demonstrate College Readiness**

One of the challenges facing students, parents, advisers, and college enrollment personnel is distinguishing between what makes a student “eligible” for college, as opposed to “ready” for college. Secondary schools need to change their focus from
developing a curriculum that meets entrance requirements to preparing students who can succeed in college (Conley, College Knowledge: what it really takes for students to succeed and what we do to get them ready, 2005). The achievements of a successful applicant may not be the same as those of a successful college student. This shift in approach from a focus on admission to success is becoming more common.

Any discussion of college-readiness should also include admission testing. Daniel Koretz’s *Measuring Up: What Education Testing Really Tells Us* (2008) is a valuable resource for defining and examining the parameters for both potential and success. American students’ achievement has been compared on international levels; but what do those trends really tell us? It is first necessary to understand what is being compared and contrasted. The same holds true for college admission and preparation.

College student retention should be included in the entire enrollment management strategy. The state of current college admissions applications and population projections shows that as of May 2010, high school seniors are submitting more applications but those increased applications have not resulted in actual enrollments (Niles, Bartlett, Kallay, & Gillbert, 2010). While at first glance it might seem that colleges benefit from a greater number of applications that is not what colleges are about. Rather, colleges are concerned with matriculation and retention through graduation. The new concept of “enrollment management” is considerably more intricate than basic admissions. By advocating for a comprehensive framework of marketing, financial aid, and admissions, that continues through alumni relations, Jack Maguire led this industry-wide shift in approach (Maguire, 1976). While at Boston College, Maguire, a trained physicist, observed the use of numerical data presented by admissions, attrition, retention, and
graduation rates in developing the campus-wide concept of “enrollment management.”

This comprehensive organizational approach turned applications into yield – fully enrolled and matriculating students.

Implementation of Change, Leadership, and Culture

As a case study, this paper addresses the development and implementation of a college-ready curriculum. The notion of change is central to the discussion of development and implementation. A critical analysis of change theory and leadership application is an important consideration.

While the concepts of leadership and change implementation are to some extent a secondary facet of this particular study, there is a direct relationship to how the college-ready curriculum was developed in this particular case of Edgewood High School. Therefore, most discussion regarding leadership and change will be conducted within the framework of developing a college-ready student body.

Generally understood in the implementation of change is the application and clear understanding of the current circumstances. In this case study, the focus is on participative learning (Chin & Benne, nd.). Knowledge of relationships, practices, and technologies must support stated goals. The change process can be described as either episodic or continuous. The term “episodic” describes those changes that are deliberate results of a planned move due to an external phenomenon. “Continuous” in the context of the study of change describes a series of collective or cumulative changes. While the differences between the two may reflect the observer’s perspective, there are real
distinctions in each definition (Weick & Quinn, 1999). At the micro-level, change is really a series of modifications and adjustments in the life cycle of a process.

To design stronger outcome based education, it is important to understand cultural implications within a school. Understanding culture is beneficial as it assists in describing aspects of the group or organization’s behavior (Schien, 1992). Once understood, culture can be directed and molded.

Schein’s model (1992) (Figure 1.) describes culture having three levels: (1) artifacts, (2) espoused values, and (3) basic underlying assumptions. “Artifacts” are described as surface appearances of the organization; that which is visibly apparent to the outside observer. “Espoused values” are those key concepts or presumptions that serve as a general direction for members. Members of the group consider “basic underlying assumptions” as the primary focus or guide for all goals and decisions.

Figure 1. Three Levels of Culture

**Conclusion**

The literature reviewed throughout this study provided a lens and framework from which to look at the criteria that influence and shape school system development. By
stepping back from my role within the school, and then analyzing the data, this study was able to define the major facets needed to develop an environment that nurtures and guarantees college-readiness for all motivated students.

The search for material regarding college-readiness provided a wealth of results. Material came from peer-reviewed, government, and corporate sponsored studies. However an interesting phenomenon of the search was the vast amount of material that was supplied by current events, newscasts, and public opinion. These sources of material served a unique perspective in that current events help to demonstrate contemporary public trends. Clearly the concept of “college-readiness” is a hot-button topic that has hit the main stream. Developing college-readiness is a growing concern throughout the public domain.

Four primary themes were unveiled throughout the review of material. These include: (1) the differences between intellectual knowledge and skill development, (2) the need for interconnectedness of the same, (3) how school systems develop a progression through grades building toward a successful post-secondary placement, and (4) a recognition of increasing resources that both colleges and students expend in an attempt to play “catch-up” in a post-secondary year. It was Edgewood High School’s lack of a successful systemic education (found in this third theme) and the understanding that students are not fully prepared (as defined in the fourth theme) that led to the changes undergone at Edgewood High School.
These themes contributed dramatically to the design of this study. Material reviewed led to an understanding of what college classrooms are demanding of students in terms of knowledge and skills.

**Deficiencies of past works.** Throughout the review of relevant literature, there has been little discussion of the development of college-ready skills as it pertains to the combination of curricular knowledge and skill development. Nor has the literature discussed how both leadership and change theories can be combined and used as a common guide in the development of a school’s progress toward a more comprehensive model.

In the different systemic discussions of intellectual knowledge, skill application, change, and leadership, only intellectual knowledge has been studied in relation to a specific school. Individual schools have studied and adopted the core knowledge approach. However, there is limited research available on specific schools’ holistic adoption of this proposal.

This paper does not propose to describe the level of college-readiness of Edgewood High School students. No prior baseline measure of college readiness in former students at Edgewood High School has been established. The only accounting for post-secondary activity involves student placements (i.e., college, work, military). Therefore, there is no way to assert that current students are any more or less college-ready than former students. Rather, this case study uses empirical evidence to (1) show how one school recognized a need to improve the level of college-readiness and (2) describe the process by which it was achieved.
**Return to theoretical framework.** The research studies selected for this paper cover education reforms that can improve culture and society. The publication of *A Nation at Risk* would forever link America’s education system and its economic security. The substandard educational performance that was described in 1983 in that text was referred to as an “act of war,” as if it had been caused by a foreign nation. Instead, we had drifted into mediocrity on our own (National Commission on Excellence in Education, 1983). Creative thought has been a cornerstone of our country, culture, and citizens. Indeed, the very birth of the nation was the direct result of innovative thinking and action. While Dewey, Hirsch, Conley and Schein each contributed something unique to education theory, it is by merging their thinking that Edgewood High School has been transformed. In the chapters that follow, the reader will see how the research and the theory merge to provide a strong scaffold for Edgewood High School to build upon.
Chapter 3

Research Design

Introduction to the Qualitative Study

A qualitative approach is the most effective way to investigate the circumstances surrounding the development of college-ready awareness and curriculum at Edgewood High School. Of the many qualitative approaches available, a case study approach is most appropriate to answer the question “how” or “why” (Yin, 2003 and Maxwell, 2005). Case studies of this nature will focus on the concept of understanding the situation rather than on an explanation of results (Stake, 1995). As a technique, the case study provides an opportunity to explore in greater depth how events and personnel interact (Creswell, 2009). It also recognizes the multiple data sources that are available, sources that are either personal or material, as well as documented or discussed.

“A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2003). By using this concept of “empirical inquiry” to describe the events and progress made at Edgewood High School, the results may replicated in similar schools and populations. The end result of this project should be a clear understanding of why and how progress was achieved, decisions were made, and programs developed. Such an explanation can inform similar practices and decisions at other schools.

Evidence collected throughout this study came from a variety of sources, including, but not limited to, observations (participant and direct), collected materials and
documents, and interviews. The development and implementation of a college-ready curriculum at Edgewood High School, is a purposeful phenomenon that has broad parameters. The change experienced by faculty and students has been meaningful and measurable. For some it has been welcome, for others not. As a qualitative study, data will pull from and explore the nuances of its development.

**Research Question**

The question for this study developed from an initial desire to understand how students can become more successful in college. That early interest morphed into a more focused examination of college-readiness and how Edgewood High School implemented specific changes. As stated, this study does not provide, nor assume to report the level of success in terms of numbers of graduates who matriculate into a college degree program. Instead, this study looked into the process of developing college-ready students.

The primary research question addressed was:

1. What specific steps did one particular school take to develop needed college-ready skills, assess its progress toward improvement and ultimately, change the culture from one of relative complacency to one of determined improvement?

This question led to the need to understand how school programs, organization, and culture supported implementation of a balanced curriculum aimed at a higher level college-readiness. And, as stated earlier, to address this question, it was important to recognize how Edgewood High School addressed the need to increase college-ready skills in all students through the delivery of content knowledge and skill development.
As stated, the purpose of this study is to understand and identify factors in the development and implementation of an improved college preparatory curriculum at Edgewood High School. The approach taken throughout this study is to ask “how” and “why” such changes were undertaken. The qualitative study and methodology as designed are the most effective way to answer these questions. Only by looking at the entire collection of evidence, can a comprehensive picture develop.

Methodology

One of the purposes of this study was to provide a resource that other schools could use to develop a successful college-ready curriculum. Multiple data sources were both relevant and available including faculty meeting notes, internal memos, curriculum documents, attitudes and opinions of faculty as expressed in interviews, and college application data. Using case study methodology to ask how and why, led to an awareness of the importance of faculty decisions and efforts in achieving the desired changes.

This particular case study will take the form of an “embedded analysis” (Creswell, 1998 and Yin, 2003). The notion of college-readiness as the primary focus is isolated from the holistic nature of the school’s operation. This study focuses on the aspect of college-readiness, whereas a more comprehensive review of the entire case would include the leadership, change, curriculum design, budget, demographics, and numerous other indicators. Educational success in one area, college-readiness, depends on the management and application of many other factors. This study included a review of the contributions of administration and faculty to the implementation of the college-ready focus. Where a program review would be designed to provide a systemic picture of
the school’s educational program, this case study was designed to extract the most important concepts in the development of the Edgewood High School college-ready curriculum.

At this point in the investigation it is clear that themes, such as curriculum design, leadership, and organizational development, played a vital role in the development of students who are fully prepared for post-secondary education. This case study approach included these themes and attempts to demonstrate their connection to the development of a college-ready mindset.

As no one theory can provide insight to all situations, a case study permitted the use of different theoretical notions to explain phenomena. When one theory alone is employed to explain a situation, other instances are left out. No one theory can explain all situations (Maxwell, 2005). Through the theoretical framework of this case study, an effort will be made to demonstrate how curriculum, in the broadest sense, and instruction were altered to effect change.

The case study method also provides ample opportunity to use several data sources that add validity to the study. In this sense, data both informed the study directly and supported previously gathered records.

_Site and participants._ Edgewood High School was the setting for this study, a public school characterized during the last fifteen years by constant change. Located in Massachusetts, Edgewood High School has a student population of approximately 1,700+ students. The city itself is a suburb of a neighboring state’s capital. Once known as a global leader in jewelry manufacturing the city still maintains a tradition of
manufacturing; however many of these factories have recently relocated. The community includes a highly diverse population that is reflected in the school population (Edgewood Public Schools, 2010). In such a small urban setting, the percentage of students who graduate from high school and are fully college-ready is typically lower than the state average (Greene & Forster, 2003). For these reasons, the City of Edgewood and its public high school present an appropriate and relevant environment for this particular study.

As a school that has undergone the intense NEASC accreditation process mentioned earlier and has seen teacher-leaders emerge as building administrators, Edgewood High School has compiled a wealth of material that includes numerous forms of practical data. This variety of data sources provided a vast amount of information and contributed to the level of internal validity. The first most meaningful sources of information were individuals with a variety of experiences at Edgewood High School who were members of administration and long time faculty members. Students, teachers, administrators, and parents were also invited to contribute their experiences and observations in a series of interviews. By noting relationships between and among these data sets, a high level of consistency and validity was established. These relationships provided an opportunity to establish triangulated verification.

Since the 2007-2008 academic year, the leadership of the guidance department has been included as one of the assistant principal’s job responsibilities. The organizational structure at the high school has been in transition. As the number of assistant principals shifted from two to three and back to two, the job descriptions for these positions have changed. Because the leadership of the institution establishes the direction or goal for the school, these personnel changes have a definite impact.
I have been an employee of the Edgewood Public Schools since September 2001. Other than one of those years when I was assigned to Harbor Middle School, I have been at the high school. During my career at Edgewood, I have worked with six different principals, three superintendents, and four department heads. In a department that started with eight counselors, there has been a turnover of staff that included seventeen individuals and has now been decreased to seven counselors due to budgetary reasons. These numbers demonstrate the recent high rate of turnover in personnel.

My role in this study was one of guidance counselor and member of the steering committee. I have been at the forefront of efforts to explore educational programs and implement innovative changes. Throughout this research, I worked closely with colleagues to implement those plans that met the goal of improving college-ready skills in all students. My personal interaction within the school and in connection with this study entailed one side of verification of collected evidence through triangulation. Throughout this study, I have carefully maintained a cautious awareness to avoid bias.

For purposes of the case study, the collection of data, specifically the interviews focused on the answers to “how-type” questions. Interviews took place at Edgewood High School. It is critical that the students’ interpretations of their own experiences became central component of the data. The students interviewed were graduating seniors. Prior to the interview, I reviewed the students’ transcript to become familiar with their academic record and to audit their progress toward graduation. A variety of teachers recommended students who could be invited to participate. Teachers were asked to provide the names of students who they believe would be willing to engage in such conversation in relative comfort.
Students. Participants were not selected based on their intention to pursue postgraduate plans. On the contrary, every effort was made to ensure that a wide variety of students are represented. It was important to the research not to select participants based on prospective attendance at “top-tier” colleges, community colleges, or technical certificate programs. Where the working definition of “college-ready” was the ability to enroll in a matriculating degree granting program without the need for remedial course work, there was no assumption related to the level of demand from such a program. All forms of post-secondary higher education were considered appropriate for this study’s definition of “college.”

Discussions with students took the form of a guided interview. Recognizing that interviews should be respected as “professional conversations” (Lichtman, 2010), it was important that subjects were provided the opportunity to divulge as much pertinent information as possible. Information collected from interviews served the as the basis for understanding student awareness of their own college-readiness. Questions asked of students focused on their classroom experiences, college expectations, and perceptions of how Edgewood High School had prepared them. As a guided interview, this process evolved from established questions and incorporated observational data into the discussion. Student comments helped to bring clarity and understanding to such data.

Fifteen students were invited to participate. This was an attempt to ensure that an effective cross section of student experience was shared and could then be related to efforts made by the administrators and teachers. Seven students participated in formal interviews. Countless interactions and conversations with other students were utilized as reference points.
Interview participants were purposely selected to ensure a balanced and appropriate response. The students selected were representative of the entire Edgewood High School student body. This purposeful selection should ensure that the process is comprehensive and timely (Maxwell, 2005).

**Professionals.** Eleven teachers and administrators were also interviewed. Their insight was vital to the establishment of historical and practical contexts. Where students are the tangible canvass on which college-ready skills are created, teachers helped develop those skills. These interviews focused on determining how teaching strategies and curriculum delivery played a role in the development of college-ready skills.

A three question survey was sent out to fifteen random faculty members. Fourteen responded. Questions were intended to provide a snapshot of feelings of assurance or confidence in the academic direction of the school in terms of leadership and purpose.

**Data collection.** To a certain extent, data collection should include both formal and informal collection points (Maxwell, 2005). Formal data collection for this study is based on interviews and discussions. Other materials and documents such as professional development descriptions and administrative meeting agendas were reviewed for relevant information. This information as it was collected, was carefully cross references and verified using a process called “triangulation” (Stake, 1995; Yin, 2003 and Maxwell, 2005). Focused and open-ended interviews, archival record review, observations, and documentation are all data collection techniques. As these data were collected, they were carefully cross-referenced.
Observational data also played an important role in developing the narrative. Such data could include material like meeting minutes, administrative discussions and/or student outcomes that can provide critical information and insight into the development and culture of the school’s operation.

Because the Edgewood High School administration has benefited from review and consultation by various outside organizations such as the New England Association of Schools and Colleges (NEASC) and Research for Better Teaching (RBT), these organizations have been investigated as well for materials and their findings that address the issue of college-readiness.

Data was extracted and cross-referenced into three categories (people, curriculum, and organization) to facilitate this study. It was anticipated that this practice would provide the acceptable level of verification. Data collected from interviews or professional documents were cross-referenced for commonalities.

Memos and notes of events were kept throughout the duration of this study. These tools were helpful to keep track of unique thoughts or insights and how they connect back to the larger study. Memos were kept in one of two formats, computer or notebook based journal. Both have been secure to protect interview subjects and sources of information. These memos have been referred to when needed to confirm applicable facts.

**Interview questions.** Interviews with students and staff provided a comprehensive look at the Edgewood High School professional and student population. This study also compared and contrasted participants’ interview results. I conducted all interviews. I developed and selected the interview questions with input from experienced teachers who
DEVELOPING A COLLEGE-READY CULTURE

have been involved in student success at Edgewood High School in past years. Student interview questions focused on three specific areas: (1) high school experiences and college anticipation, (2) college experience and high school preparation, and (3) socialization/college-life expectations. These three focus areas were woven throughout the fabric of the interview. The interview followed the protocol below; the interests and questions included, but were not limited to:

Table 1:

Sample Questions from Student Interviews

<table>
<thead>
<tr>
<th>Area of Interest</th>
<th>Goal or purpose of interest</th>
<th>Sample question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Questions focus on history of academics, personal, and involvement</td>
<td>What are your intended plans now that you are about to graduate from high school?</td>
</tr>
<tr>
<td>Preparation</td>
<td>Questions focus on EHS and students’ experiences and their interpretations of their college-readiness.</td>
<td>Do you feel you are prepared to continue your education after EHS? Explain.</td>
</tr>
<tr>
<td>Expectation of College Experience</td>
<td>Questions focus on student’s anticipation of the college experience.</td>
<td>What academic skills do you think will be most valued by a college professor? (i.e., writing, test taking)</td>
</tr>
<tr>
<td>Personal Experiences</td>
<td>Questions serve two roles, (1) to gain an insight into what a student is expecting from a teacher; and (2) how the student describes their own academic focus.</td>
<td>(1)What do you value in an effective teacher? How does that transfer to a college professor? (2) Do you consider yourself a “self starter?” Are you a procrastinator?</td>
</tr>
<tr>
<td>Final Summary</td>
<td>Questions get at the heart of the student’s experience, their understanding of their own college-readiness and how they arrived at this point.</td>
<td>How did EHS prepare you for continued education? What are the factors that contributed to your preparation?</td>
</tr>
</tbody>
</table>
Questions posed to teachers and administrators focused on (1) goal and design of specific curriculum offered and their individual teaching style and (2) organizational change and leadership they have witnessed in the school. I expected these interviews to resemble conversations. Similar to the student interviews, the interview of professionals flowed and followed the protocol as follows; the interests and questions include, but were not limited to:

Table 2:

Sample Questions from Faculty Interviews

<table>
<thead>
<tr>
<th>Area of Interest</th>
<th>Goal or purpose of interest</th>
<th>Sample question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>To understand framework from which teacher is coming from.</td>
<td>What is your goal for each graduate?</td>
</tr>
<tr>
<td>College-readiness</td>
<td>To establish individual characterization and understanding of terminology and study’s focus.</td>
<td>Define &quot;college-ready.&quot;</td>
</tr>
<tr>
<td>Personal interpretations</td>
<td>Personal recognition of college-readiness and its implementation and development throughout the school over time.</td>
<td>How would you respond to the following statements? In the past, EHS has not developed enough students with college-ready skills. Efforts made over the recent past have increased college-ready skills. List the efforts /programs/approaches that have done so.</td>
</tr>
<tr>
<td>Transition</td>
<td>Questions will focus on the process and thoughts behind implementation of change.</td>
<td>How do you approach &quot;change&quot;?</td>
</tr>
<tr>
<td>Historical perspective</td>
<td>To understand past practice and the efforts undertaken to make changes.</td>
<td>How has the approach to college-readiness development changed since you have been here?</td>
</tr>
</tbody>
</table>
It was important to also ask a purposeful research question posed by this study:

How did the emphasis on the balance between content knowledge and skill development in instruction support the development college-ready skills in all students at Edgewood High School?

**Coding.** As described above, collected material was initially categorized according to one of the three classifications listed above: people, curriculum, and organization. Following the process described by Creswell (2009) and Saldana (2009) the analysis and coding of data met the expectations and requirements for qualitative research.

By definition, coding is the use of a word or phrase to symbolically refer to greater theme or concept from collected data (Saldana, 2009). Coding was done manually as it provided for “increased control over and ownership of the work” (Saldana, 2009). This practice included numerous discussions with faculty and students to process, or “flush out,” thoughts and concepts to validate the findings. The coding process underwent four steps, (1) open coding, (2) emic coding, (3) analysis, and (4) interpretation.

**Stage 1: open coding.** This first stage of coding rested primarily on both In Vivo and Descriptive Coding practices. Simultaneously throughout the collection of data, material was reviewed for summative concepts. In Vivo Coding was helpful in extrapolating codes from personal interactions and interviews. Descriptive Coding allows others to witness the same educational and operational activities as they were viewed in the form of data. No less than forty codes emerged from this initial review.
Stage 2: emic coding. Putting aside preconceived notions and theories and as an “insider” to the source of the research, emic coding provided for the opportunity to let additional and more focused codes emerge (Unknown, 2008). This process allowed for undercurrents of information to rise through the larger collection of data. Looking at the list of codes developed in the first review, ten families of codes emerged.

Stage 3: analysis. Having lists of codes from the first and second stages laid out, it was important to comprehend the now more focused material. Using the same emic approach coupled with pattern coding and theoretical coding (Saldana, 2009) methods, the list of ten was consolidated to provide for a final recognition of three overarching codes that could be found interwoven throughout the data. Pattern coding was practiced as it allowed for families of relationships to emerge. Theoretical coding was practiced as an opportunity to find themes throughout the research where categories become interconnected with a central concept. Using both coding practices, the goal of the search was for strength or “quality” versus “quantity.”

Stage 4: interpretation. The final step of the collection process is the development of an understanding of “what does this all mean?” Creswell (2009) refers to this stage as asking, “what are the lesson learned?” After careful analysis of the data and a reflection back upon the lens through which this study was conducted, the research question could be answered.

Data analysis. The purpose of research is to collect facts, process data, and provide analysis that result in a logically informed conclusion (Anderson & Arsenault, 2004). One of the central tenets of this investigation was an analysis of the application of
education theory. It is prudent to revisit these theories in light of the data collected. Clearly, students must acquire a foundation of material deemed essential as described by Hirsch and other classical theorists. Equally, progressive theorists contribute the concepts of innovation and the practical application of learned knowledge. Data collected throughout this study was analyzed in an attempt to identify the impact of each theory throughout Edgewood High School.

To manage data collected from interviews more efficiently, it was important to analyze results immediately. Collection and analysis were managed simultaneously (Maxwell, 2005). Interviews were recorded, with consent. In cases where recording was not possible, proper notes and documentation were maintained. During conversations and interviews, notes were taken. Material pertaining to professional development, leadership, curriculum development, and their implication on the level of college-readiness in students was collected. These data sets were coded for their impact throughout this study.

It was anticipated that information from students, whose results and progress are central to this study, would focus on their personal interactions. It was also anticipated that students would also recognize and mention the impact of teaching style or purpose. It was not anticipated that students would have access to or recognize the administrative or organizational design affecting their experiences. Insomuch as administrators and teachers closely interact within the confines of organization and leadership, administrative goals for teaching approach can be recognized. As the key points of such interviews were coded, results could be seen that supported student and professional understandings of the situation. In turn, the personal experiences were supported by the
materials such as meeting minutes and professional development materials. This investigation of correlations provided the expected validity. Triangulation of evidence is one of the cornerstones to case study research. This study adhered closely to these requirements.

An effective case study addresses all the central components of a phenomenon. There is an organic complexity to this study that could only be explained from different perspectives. The compiled data was analyzed for themes and connections to this study’s focus on how and why the knowledge and skills leading to increased awareness of the importance of the role of development.

**Validity and Credibility**

Validity refers to the quality of being truthful. Credibility refers to the quality of being trustworthy. This study intends to provide findings that stand up to such scrutiny.

Internal validity was established when all observations, interviews, and materials were analyzed through the same lens; that is, how Edgewood High School developed a balanced curriculum that resulted in an increase in the level of college-ready awareness in its students and faculty. However, it was clear that without experimental sampling research, the qualitative study might be scrutinized for its interpretation of documented observations. Great care was taken to recognize and communicate that the goal of the study understands the comprehensive description of the situation at Edgewood High School, not a causal explanation (Stake, 1995).

Since this was a qualitative study, the focus was on answering contextual questions. A high level of validity was established because the data collected was not
manipulated through the process. The interviewer discerned the difference between personal thoughts and feelings and tangible facts and accuracies.

Credibility within the study was maintained through honest findings supported by the consultation with applicable resources for research. It was imperative that the constant collection of material be documented and cataloged for its use throughout the study. Interviews were summarized and coded for themes. Understanding the data constructs and the source of evidence can provide transferable references.

**Trustworthiness.** Where establishing validity is important, it is equally crucial that the study’s results be credible. Qualitative studies must establish a high level of trustworthiness. That is to say, evidence collected and material presented establishes confidence. To reach such confidence, four issues must be addressed: (1) establish truth, (2) address how findings can be applicable in other settings, (3) determine that findings are consistent, and (3) establish neutrality by eliminating bias. These four criteria (truth, applicability, consistency, and neutrality) are the key elements of validity and reliability (Lincoln & Guba, 1985).

**Transferability.** Sometimes called “generalizing the results” (Locke, Silverman, & Spiduso, 2010) an objective of this study is for similar school systems to recognize and mimic the situations put into practice at Edgewood High School. There is an intention to provide a level of transferability to other school systems in an attempt to create a culture of college-readiness. Transferability, in this setting is used in terms of the ability to generalize material and results to other locations (Tochim, 2006). Lincoln and Guba (1985) equate this qualitative terminology to quantitative’s “external validity.”
Protection of Human Subjects

A school is an organic environment whose faculty is made up of individual personalities with different perspectives. It can also be a political environment where personal agendas have the potential to clash. These concerns have been addressed and individuals protected. Established university protocol has been followed and appropriate documentation is on file.

Individuals interviewed are protected through anonymous records. All individuals interviewed, including students, were over the age of 18 at the time of the interview. Material collected also provides for the protection of personal contact information. Any material or information attributed to a specific individual is by result of public record or consent.

Interviews conducted were recorded with the consent of all participants. Digital recordings were password protected on a single computer and deleted upon conclusion of the study.

All measures instituted by the university to ensure secure protocol were followed. Proper documentation was filed with the university’s Office of Human Subject Research Protection. No changes have been made to the initial study proposal or data collection methodology.

Conclusion

The topic of college-readiness has moved to the forefront of education discussion in recent years. This study is intended to provide insight into how one particular high
school made intentional decisions to improve the educational environment with a keen focus on developing college-readiness in all students.

The stated research questions focus in on the question of “how.” A question of this nature can best be answered through a qualitative approach. The narration of a case study provides a format with which to explain and answer. More specifically, the embedded analysis research method practiced throughout this study provides an opportunity to examine a first-hand account of the people and events.

Data collected has been scrutinized for validity and application to the study. Lincoln and Guba (1985) best explain the criteria for effective use of data. By ensuring truth, applicability, consistency, and neutrality throughout the findings, the concern for validity and reliability is addressed.

Students, indeed all individuals, are in a constant process of learning and practice. Historically, the focus in elementary and secondary school setting has been on grade promotion and graduation rather than the preparation for continued education. Moving beyond the traditional K-12 system, many are now adopting the P-16 concept (Brown & Conley, 2007). This study investigates such adoption at Edgewood High School.
Report of Research Findings

Introduction

The goal of this research was to identify the factors that contributed to the improvement of Edgewood High School’s capacity to develop college-ready students. Interviews of faculty and students, in conjunction with relevant supporting materials, constituted a rich source of data to answer the primary research question: What specific steps did one particular school take to develop needed college-ready skills, assess its progress toward improvement and ultimately, change the culture from one of relative complacency to one of determined improvement? To answer this question, the study investigates how did Edgewood High School address the need to increase college-ready skills in all students through the delivery of content knowledge and skill development? While the purpose of the study was to understand the relationship between content knowledge, skill development and the school’s instructional focus on college-readiness, the data collection also revealed the importance of school-wide and even district-wide efforts.

As stated earlier in greater detail, this effort was undertaken with the purpose of identifying the process and the decisions that affected the level of college-readiness in all students so that a similar plan could be implemented in other schools attempting to raise achievement. Planning for college is a long-term commitment, a commitment made by individual students and families, but supported by an entire education system. To uncover how instruction that enhanced graduates’ preparation for post-secondary education was
provided, this study compiled data spanning ten years of transition and development within the high school. Data sources included but were not limited to the personal experiences of both faculty and students, to student scores, administrative notices, agenda and meeting minutes.

The single theoretical framework that was used to interpret data and to code interviews included understanding of both progressive and classical education theories with reference to Schein’s theory of organizational culture. Since college-readiness involves both content knowledge and the ability to apply knowledge in creative and productive ways, as data was collected and reviewed there was a concerted effort to uncover how the process confirmed, contradicted, or complicated this framework.

An analysis of the data presented four specific findings regarding how Edgewood High School improved the development of college-ready skills and attitudes in students. The first finding revealed that not all faculty members shared a common understanding of the definition of “college-readiness” in the early stages. The interviews also showed that over time deeper understanding took place. Members of the faculty gradually expanded their understanding of “college” to include any type of post-secondary education and “college-ready” as the definition of graduates who could successfully continue into college without the need for remedial course work.

With the recognition of the school as an organic entity, the second finding arose in conjunction with the first. Classroom teachers, together with administration, worked to develop instructional strategies that were designed explicitly to help students develop the attitudes, skills and knowledge needed by college students to be successful. At the same
time, instruction maintained a strong connection to the published state-required curriculum frameworks. The research found that as a uniform school-wide lesson protocol was developed and implemented, the effect on student learning was increasingly positive.

The third key finding was that certain organizational changes that were put into place during the time that teachers were working on instructional changes served to support classroom-based changes and strengthened the school-wide effort. While some changes were forced by budgetary constraints, the guiding purpose behind each decision was improving student performance.

Finally, the cumulative result of the efforts undertaken and decisions made at Edgewood High School might have been lost without the purposeful implicit and explicit message that all students were expected to be fully prepared to continue onto college upon graduation. The fourth finding showed a direct relation between this embedded messaging and how students heard and responded to the school’s efforts to focus all students on continuing education beyond high school.

It was no surprise that efforts made at Edgewood High School during the timeframe of this study involved the concept of change. While change is not a focus of this study, it was a concept that surfaced often in interviews with faculty and students, and holds great promise as an important follow up study. Similar to the efforts undertaken at Edgewood High School, the findings themselves uncovered several stages in the process: introduction, development, influence, and reaction. As faculty and administration pondered, discussed, and tried different approaches aimed at improving
the educational environment, their efforts resulted in improving the potential success of Edgewood High School graduates in their post-secondary endeavors.

The chart below lays out the four key findings with bullets that represent some of the recurring underlying themes:

**Table 3:**

**Four Findings**

1. **Faculty understanding of the concept of "college-readiness" deepened over time**
   - Defined college-readiness as the ability to succeed in post-secondary education without the need for remediation
   - Understood the need for a balance of content knowledge and skill development
   - Developed an understanding that college eligible is not college ready

2. **Faculty developed new balanced instructional strategies**
   - Developed Edgewood High School's instructional model
   - Implemented 21st Century Skill concepts, e.g. analytical thinking, collaboration
   - Integrated writing across the curriculum

3. **Organizational change supported and encouraged cultural change**
   - Changed school class schedule
   - Adopted a House model
   - Wrote Mission and Vision Statements

4. **Messaging was a critical factor and cultural influence on college-readiness**
   - Emphasized challenging course work
   - Set high expectations for student learning
   - Re-defined traditional understanding of "college" to include all post-secondary educational opportunities
Finding 1: Faculty understanding of the concept of “college-readiness” deepened over time

It was difficult to assess growth in the level of understanding teachers had in terms of college-readiness. However, there is great confidence in stating this finding. Previous to this study, there was limited collected evidence with regard to any understanding of college-readiness. Certainly there is no quantifiable evidence. Teachers who have numerous years of experience spoke in their interviews and outside of documented conversations about how the cultural feelings towards post-secondary plans have morphed over the years. “College” was once thought of as the traditional four-year-university setting. Now the term includes all post-secondary educational training (including but not limited to community colleges, technical schools, and professional certificate programs). For example, the Office of Graduate Opportunity existed prior to 2002. This office provided a college guidance resource for those students who wished to continue onto a four-year college. While even the connotation within the name “graduate opportunity” this office did not necessarily provide such assistance for all graduates. Students looking for technical training, military service, or other were left to find guidance elsewhere, and many often did not.

This finding discusses the development of the understanding of “college-readiness;” where it is difficult to document this transition, the results of such change is reflected in this finding. The first such transition is the removal of the Office of Graduate Opportunity, and the implementation of a formalized comprehensive guidance department. From this first move, all post-graduate opportunities were viable options and students received the support they needed. From here, the understanding of “college-
readiness” deepened as a unique combination of knowledge and skill sets. This administrative action and organizational change is purposely confirmed through triangulation in conjunction with personal interviews.

While there may have been differences regarding how to develop college-readiness, its importance was undisputed among those interviewed at Edgewood High School. Interviews conducted revealed unanimous agreement on the understanding that the term “college-ready” embraced both content and skill-based knowledge. However, only three interviewees also pointed out that college-readiness also involved the student’s ability to succeed in college without remedial course work. One was a student (grad5) who phrased it as “I hope I don’t fail” in the context of “do you think you are ready for college?”

Asked “what is your goal for each graduate?” a successful post-secondary placement into some form of education or training was again a universal response. Teachers and administration explained their goal of developing students who are “self motivated, don’t have to have everything spelled out for them” (T2), “have the ability to obtain information and be able to use it for some purpose” (T5), and understand that success after high school is “more a skill set and attitude than content knowledge” (T9). These comments reflect the influence of the combined classical and progressive theories applied to this study. In addition, interviewees often explicitly expressed the need for students to possess a balance of content knowledge and skill development.

Over the past five years, the understanding and clarification of “college-readiness” as a fundamental goal of education has been integrated throughout Edgewood
High School. During this period, there were numerous discussions at faculty meetings and workshops about what students should be expected to do and whether college-readiness is an appropriate goal. Individual teachers may have had their personal issues or concerns, but the systemic understanding was that a primary and inherent purpose of secondary education is to complete the preparation for post-secondary education, in this case using the term “college” to represent all formal education and/or training after graduation.

Teachers and administrators who participated in interviews were asked for their definition of “college-readiness.” This question was early in the interview process and prior to any major school-wide effort to educate teachers on what college-readiness meant in the context of our work. Notable responses to the question, “How do you define college-readiness?” are as follows:

*Table 4:*

*Interview Responses Supporting Finding One*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Key Phrases / Findings</th>
<th>Themes that Emerged</th>
<th>Theoretical Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2</td>
<td>College-ready student is “self motivated,” “does not need details spelled out”</td>
<td>Student approach to class work</td>
<td>Skill building / Progressive</td>
</tr>
<tr>
<td>T3</td>
<td>Can “write in proper English”</td>
<td>Produce appropriate grade-level work</td>
<td>Content / Classical</td>
</tr>
<tr>
<td>T5</td>
<td>Student has “literacy skills,” “can read and comprehend text and be able to interpret, analyze and form an opinion”</td>
<td>Reading skills as gateway to learning skills</td>
<td>Comprehension / Classical &amp; Interpretation / Progressive</td>
</tr>
<tr>
<td>T6</td>
<td>Student has “the ability to obtain information and be able to use it for some purpose”</td>
<td>Reading skills as gateway to learning skills</td>
<td>Collect information / Classical &amp; Use of information /</td>
</tr>
<tr>
<td></td>
<td>“Advance career goals” “There is a certain relativity to what college-readiness is for each kid”</td>
<td>Connection to career-readiness</td>
<td>Progressive</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>T7</td>
<td></td>
<td></td>
<td>Career-readiness / Progressive</td>
</tr>
<tr>
<td></td>
<td>“More a skill set and attitude than content knowledge” “Not give up” “The most successful people aren’t the people who know the most stuff, it’s the people who know how to learn the stuff they don’t know”</td>
<td>Messaging – student can benefit from motivation to learn and grow</td>
<td>Attitude within learning process / Progressive</td>
</tr>
<tr>
<td>T9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Partly content but mostly skills based”</td>
<td>Recognition of both content and skill as part</td>
<td>Skills applied to content / Classical &amp; Progressive</td>
</tr>
<tr>
<td>T11</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Summary.** By implementing the concept of backwards design (Wiggins & McTighe, 2005), the first step for Edgewood High School graduates to become college-ready was taken. This required the development of instructional practices, organizational structures, and cultural messaging that supported this goal. Before any decisions could be made or efforts undertaken, it was critical that the faculty and administration understood that they were encouraging students to set their sights on something more than a high school diploma. They were working collaboratively toward an education that truly prepared them for successful post-secondary education.

This was accomplished in part through the removal of the poorly-named Office of Graduate Opportunity, formal and informal professional discussions, and a gradual change in understanding.

**Finding 2: Faculty developed new balanced instructional strategies**
Over the past 10 to 15 years, the school administrative and teaching staffs have made substantial changes to how subject matter and skills are taught as well as to the educational environment. Understanding that classroom teaching does not take place in a vacuum, there is recognition of a connection to the school culture. Thus, the symbiotic relationships among these three components (content, skills, and culture) substantially raised the level of Edgewood High School graduates’ college-readiness.

Enhancing instructional strategies involved the entire teaching staff and learning environment. Teachers also realized the need to make connections to the real world, to teach more authentically. This idea of “making connections” became known as “framing the lesson” as part of the implemented lesson protocol. Practices also included the implementation of teaching research and communication skills as they are applied in 21st Century Skills and Common Core standards.

One faculty member, T9, in response to the question “Define college-ready” responded that college-ready meant a skill set and attitude than content knowledge saying, “the most successful people in the world aren’t the people who know the most stuff, it’s the people who know how to learn the stuff they don’t know.” This statement hit at the heart of the college-ready efforts; how to teach students how they can collect, process, analyze, and learn new knowledge.

In the tradition of Horace Mann and the common school, it is fitting that in July 2010, the Massachusetts Board of Elementary and Secondary Education adopted the newly released Common Core State Standards (Massachusetts Department of Elementary and Secondary Education, 2011). In order to meet national standards for English
Language Arts and Math, these expectations defined what students should know and be able to do upon completing high school.

The standards also include the skills that will prepare them for post-secondary education or entry into the work force. By incorporating the current rigorous Massachusetts frameworks with the need for 21st Century Skills, these Common Core standards combined both content and skill-based knowledge.

Factors that contribute to this combination include the following:

1. writing across the curriculum,
2. development of speaking, listening, and vocabulary skills,
3. attention to developing communication and research literacies (i.e. digital, computer based), and
4. assistance for students of varying abilities throughout the math curriculum.

(Massachusetts Department of Secondary and Elementary Education, 2010).

It is important to note that Edgewood High School has established such standards and continues to work to meet and exceed them.

**Writing.** In 2004, Edgewood High School adopted the Collins Writing Program, which encouraged students in every content area to utilize writing practices ranging from brainstorming exercises to development of a final, publishable document. Edgewood High School gradually established an explicit requirement for writing across the curriculum even before Common Core standards were established at the state level. Good writing skills are now expected in all course work in every classroom. For example, students in carpentry are developing and writing business plans as part of their capstone portfolio and geometry students write a lesson synthesis. As a critical life-long skill,
teachers expect students to explain, analyze, and summarize learned material through clear articulation of the written word. According to one teacher, T9, students must have the critical thinking and language skills to “have an argument and support it.” Also, “just because’ is not an answer;” students must be able to understand and articulate their reasoning.

**Reading.** Reading across the curriculum has also been a focus of attention for many years through Common Core’s emphasis on speaking, listening, and vocabulary skills. In 2000, Edgewood High School became a member of High Schools that Work, a national organization developed through the Southern Regional Education Board. One of the program’s continuing efforts is the Silent Sustained Reading (SSR) program. For 15 minutes every day, it is expected that all teachers and students read. There is no assigned text or follow-up testing. The focus is on encouraging students simply to read. Through this exercise, readers are expected to read literature rather than a magazine or newspaper. Students keep a record of their reading in class log books. With over one million documented pages read each semester, this effort has proven to be enormously successful at engaging school members in reading.

Interviewee T5 described his efforts towards developing college-readiness in terms of literacy skills. Students need to have, “basic literacy skills, the ability to read and comprehend text, the ability to read an article, book, piece of non-fiction, a contract and be able to interpret what it says and be able to analyze it and form an opinion about it.” Edgewood High School has since left the High Schools that Work program; however, SSR has continued due to its overwhelming success.
Classroom. To many, the classroom is nothing less than a magical place. In many of the interviews conducted for this study, teachers examined the art and the science of teaching. T3’s comment was especially noteworthy: “There is something beautiful about the mystery of learning.” T3 described his approach as leading the class on a journey. Where the journey may start out “a little vague,” the learning experience will in due course arrive, “with a light bulb going off in an ‘I got it moment’.” William Bagley refers to this as the “vow of ‘artistry’” or an endeavor to make the best possible effort, without concern for the workload or reward (Bagley, 1912). This is the craftsmanship of teaching. The teacher in the classroom takes the first steps toward developing college-ready skills. Interviewee T4 said strongly, “This is not a science, it’s an art.”

Whether the class is designed to provide special education services or Advanced Placement (AP) instruction, the expectation is the same: that students will master the skills and comprehend the content. T4 teaches both special education and AP courses and uses many of the same approaches toward teaching in both circumstances. T4’s goal for all students is that they become “intrinsically motivated,” to understand that “the process means something.” College-readiness skills include students’ awareness of their environment and a sense of their situation. Wagner discusses this in terms of “soft skills,” the ability to engage in good discussions and ask probing questions (Wagner, 2008).

Lesson protocol. The different ways in which teachers engage their students have been studied for many years. This is true not just at Edgewood High School, but throughout the educational community. The leadership team developed the established lesson protocol (Appendix A) with the help of consultants from Research for Better Teaching, an organization created by Jon Saphier that has dedicated itself to the
improvement of instruction through professional development and teacher evaluation. This protocol is expected to be universal with respect to every teacher and every class. The purpose of the protocol is to demonstrate the goal of the day’s lesson, deliver the material, and summarize it. Upon entering the classroom teachers give students a “warm-up.” The warm-up is not used as a part of any assessment or evaluation but rather to simply engage and encourage the student to set up a mental framework. The teacher posts the day’s Mastery Objective for all students to read, stated as “The student will be able to….” The mastery objective is “the what” of the lesson. It should be linked to the Massachusetts frameworks and specifically state what students will be able to do and/or know at the conclusion of the lesson. Part of the mastery objective must include “the why” and “the how;” the purpose and the agenda. Students must understand why the day’s lesson is important and see a step-by-step guide on what they should expect that day. Conceptually, if students understood the purpose and goal of each day’s lesson, they would understand the path and goal of their experience. Once they understood where and why they were pursuing such activity, they would become fully engaged in the class and learning experience. Or at the very least, students understand why they are doing such a lesson. The learning experience was and is the lesson itself. As posted, it “implements planned instruction that promotes achievement of the lesson objective for all students” (Edgewood High School, 2009). Every class then concludes with a closure activity that wraps up the material and engages the students in an effort to examine their understanding. When asked about their appreciation of the established lesson protocol, most teachers responded that, while it can be helpful in planning a lesson, it also could be a hindrance.
The development of balanced instructional strategies were explained and/or exhibited within the following statements taken from interviews:

*Table 5:*

**Interview Responses Supporting Finding Two**

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Key Phrases / Findings</th>
<th>Themes that Emerged</th>
<th>Theoretical Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>T5</td>
<td>“Programmatic improvements within special education. In the past we were looking to just get them out of high school, but standards have increased”</td>
<td>Teaching and learning expectations for all students have increased beyond simply a diploma</td>
<td>Application of theory when none appeared so prior</td>
</tr>
<tr>
<td>T6</td>
<td>“Students aren’t willing to prepare themselves, but the school has developed many initiatives” / “In the past teachers simply covered the material, now writing is more an emphasis”</td>
<td>School personnel’s willingness to develop initiatives</td>
<td>Bringing Classical and Progressive theories together</td>
</tr>
<tr>
<td>T9</td>
<td>Advanced Placement is for everyone</td>
<td>Expectation that all students strive for more challenging course work</td>
<td>Rigorous content of AP is reflective of Classical / Analysis of content is reflective of Progressive</td>
</tr>
<tr>
<td>T6</td>
<td>Increased rigor dives “deeper into the material” / higher expectations encourage students to look at “what do I expect out of school”</td>
<td>Purposeful learning experiences</td>
<td>Rigorous content of AP is reflective of Classical / Analysis of content is reflective of Progressive</td>
</tr>
<tr>
<td>T3</td>
<td>“teachers have made a great effort” to incorporate lesson protocol into practice</td>
<td>Faculty commitment</td>
<td>Modeling of Progressive theory</td>
</tr>
<tr>
<td>T3</td>
<td>Lesson protocol- “biggest load of crap ever” / “there is something beautiful about the</td>
<td>Some faculty members have not fully committed to</td>
<td>Belief that Progressive theory alone can</td>
</tr>
</tbody>
</table>
mystery of learning” (lesson protocol takes that away)    the initiative    provide creative teaching environment

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>T6</td>
<td>Lesson protocol- “a good teacher plans…the lesson protocol forces teachers to plan”</td>
<td>Lesson protocol provides a proven standard</td>
</tr>
</tbody>
</table>

**Summary.** Nurturing change in the school environment and supporting the implementation of refined teaching protocols are both individually difficult challenges. Each requires unique attention to professional best practices and professional individuals. District leaders recognized the need for both and this recognition resulted in changes on both fronts.

Through innovative teaching strategies and educational programs, curriculum at Edgewood High is taught while incorporating skill development that is consistent with the concepts of college-readiness. Teaching is not limited to simple presentation of material. Rather, it is the encapsulation of inter- and intra-personal relationships and the effective communication of knowledge.

This finding is derived from, but not limited to these articles of evidence: a.) development of the lesson protocol, b.) observation of teacher classroom initiatives, c.) incorporation of reading and writing across the curriculum, and d.) adoption of emerging national common core standards. These efforts taken together as triangulation support confidence in the finding.

**Finding 3: Organizational change supported and encouraged cultural change**
Schein defines the core of organizational culture as the basic assumptions that guide member behavior (1992). Using this concept as a guide helps to understand how the academic culture at Edgewood High School developed based on certain assumptions regarding college-readiness. The explicit and implicit connections throughout this model are applicable to Edgewood High School. The class schedule, mission statement and student expectations, and value placed on preparing students through a rigorous curriculum all demonstrate “artifacts,” “espoused values,” and the “basic underlying assumptions” (Schein, 199).

Asked to describe the school environment 10 to 15 years ago, interviewee T7 quickly responded, “A zoo. The kids ran the show.” The environment, with students in the hallways and little classroom discipline, was clearly not conducive to teaching or learning. At that time, the curriculum included courses offered at five different levels, including a non-college-prep curriculum. The students enrolled in these classes tended to have little or no motivation to continue their education beyond high school. About one-third of all students were enrolled in non-college prep courses (T7), and as such were not prepared or even eligible to attend college. Those few students who seemed to be interested in attending college received a significantly higher quality of education, albeit in what was considered a difficult academic and cultural environment.

To address the concern regarding student behavior and classroom environment, Edgewood High School subscribed to the concept of “cooperative discipline” (Albert, 2003). Classroom management strategies that involve student centered concepts were taught through professional development by Edgewood High School teacher leaders (August 2007-two sessions and January 2008). The focus of cooperative discipline is for
teachers to encourage student support in developing established classroom behavior. With an emphasis on creating a positive school environment, the cooperative discipline approach is credited with having a substantial impact on the number of students sent out of class for disciplinary reasons, and thus improving the level of academic expectation.

The current culture in Edgewood Public Schools is difficult to characterize as it is seemingly contradictory at times. In interviews, some staff reported a sort of “inferiority complex” (T8) when compared to other area public and private schools that might be perceived as more successful or more college-oriented. It is critically important to note that, at the same time, there is a noticeable pride in what has been accomplished. This research underscores the fact that changing a school’s culture is a long, slow process. However, there are apparent and defined steps that can be taken which result in substantial progress. These are the steps undertaken by the faculty and staff of Edgewood High School.

The current school principal identified “school culture/climate” as a focus area in the WSIP (Appendix B), emphasizing its importance as part of school effort and success. The results of this research emphasize the importance of this ideal.

Leadership. Since 2000, there have been five principals at Edgewood High School and three district superintendents. Four different individuals have worked in two of the assistant principal positions. Within this same period (2000-2010), a third assistant principal position was created and then eliminated within the span of two years. An element of stability was achieved when the current principal was promoted from an assistant principal position. The replacement for that assistant principal position was
promoted from within the building and has remained in that job ever since. The expression “change is a journey, not a blueprint” (Fullan, 1997) is evident at Edgewood High School.

The current team of administrators (superintendent, principal, assistant principals, department heads, and director of Career and Technical Education) support increasing the level of college readiness in all students. When interviewed for this study, each member of the administrative team stated that his or her goal for every graduate is preparation for post-secondary success. Some explicitly identified preparation for college, while others discussed the concept of preparation as the ability to further personal goals in life, assuming that everyone needs continued education to advance in life. Because college-readiness is a key goal of school and district leadership, administrators are mindful of the need to prepare students for post-secondary education. They evaluate curriculum, organization, and other educational efforts in light of their impact on the enhancement of college-ready skills.

**Organization and house model.** In an effort to provide closer contact between teacher and student, Edgewood High School made an additional effort to create smaller learning communities. Loosely connected to student needs, career clusters, and family connections, students and faculty are assigned to one of three houses. Each house can be loosely described as a “college” within the “university” structure. Within each house, students access all of their academic courses and support services. Teachers have the opportunity to share concerns in an interdisciplinary forum.
More than an attempt to mimic the college environment, this structure is an effort to provide more meaningful connections between students and faculty. As such, the academic experience is intended to improve and with it, the level of college-readiness.

**Massachusetts math and science initiative.** In 2009, a group of teachers submitted an application to the Massachusetts Math and Science Initiative (MMSI). This grant assisted in the expansion of AP course offerings with a goal of increasing the number of students who enrolled in AP courses and earned a qualifying score on the AP test. The grant was awarded, and beginning with the 2009-2010 school year the number of AP courses and students enrolled more than doubled. On average, there were eight AP courses offered, with approximately 135 students enrolled. For the school year 2010-2011, just the second year of encouraging greater participation, the offerings expanded to eighteen and accommodated 408 students (Appendix C)

More to the point of developing college-readiness and improving the education throughout the school is the application and implementation of the Massachusetts Math and Science Initiative (MMSI) grant. Citing that success in developing college-ready students through Advanced Placement course work, MMSI gives teachers and students the resources they need to succeed. The program’s aim is not to raise the scores of those students taking an AP test, but rather to increase the number of students who earn a qualifying score. In other words, Edgewood High School was already producing a fair amount of success among highly motivated students; but the goal of MMSI was to increase the number of motivated students and encourage them to greater success. Since implementation, the number of students who have earned a qualifying score on AP tests has more than doubled, and the number of students enrolled in at least one AP course has
almost tripled. According to MMSI personnel, students who earn even a 2 on an AP test demonstrate increased success in college course work, due to the higher level of content and development of critical thinking skills. Edgewood’s success has been cited as a model for other schools to follow.

**Honors diploma program.** A group of Edgewood High School faculty, observing that a number of students had been denied admission to “top tier” colleges (i.e., Ivy League, MIT, Stanford), began to search for possible reasons. They found that many Edgewood High School students were not able to compile a strong list of both academic and extra-curricular accomplishments. Students were:

1. taking enough, if any, College Board SAT subject tests;
2. involved in activities at the level desired by such colleges; or
3. enrolled in course work at the expected challenging level of difficulty.

In professional meetings, faculty identified the chief and compelling characteristics of students who they believed could be successful candidates and compiled a list of comparable requirements for the honors diploma program. Students who were interested in pursuing such a diploma were required to complete the following: (1) four years of honors level work in English, math, science, social studies, and a foreign language; (2) two AP courses in each of their junior and senior years; (3) at least a qualifying score (three) on each of the two junior year AP tests; (4) a score of at least 600 on three SAT subject tests; (5) a combined score of at least 1950 on the SAT reasoning test; (6) a minimum weighted grade point average of 80; (7) no final grade lower than 70; (8) participation in three extracurricular activities each year; and (9) participation in one
extracurricular activity for three years (Appendix D). Since the introduction and implementation of the honors diploma program, 90 students have met these standards (Appendix E). All have been accepted into “top tier” schools. Though the number of graduating seniors who earn the honors diploma may be relatively small, the effort and pursuit of a rigorous course of study combined with extracurricular work benefits all students’ college applications.

It is important to note that the Massachusetts state universities have established an academic course requirement for admission (Appendix F). Where these requirements are not as rigorous as the standard set by the honors diploma requirements, students have reported their being awarded substantial scholarships from various state universities as a result of such academic pursuit. There is great confidence in the level of demand and reward established through the honors diploma. Not just as an admission goal at top tier schools, but the economic reward of scholarship money.

**Expecting more of students than they expect of themselves.** The district superintendent has emphasized this philosophy in countless speeches and venues. As applied at Edgewood High School, it conveys the expectation that all students are prepared for post-secondary education. This concept is the “basic underlying assumption” in Schein’s model. A key belief of many throughout the school is that students can achieve at greater levels than they themselves anticipate.

This concept has been most effectively demonstrated through the increase in enrollment of AP courses. Prior to the 2009-2010 school year, Edgewood High School held fewer than ten sections of AP classes (Appendix C). Approximately 140 students
were enrolled in those classes. In 2010, the school experienced a renewed approach to student classroom achievement. For the 2010-2011 year, with the awarding of the MMSI grant, AP course offerings doubled to 18 and student enrollment almost tripled to 408 (Appendix C). During this transition, students were apprehensive about the rigor and expectations. However, a number of parent information sessions, Saturday tutoring sessions, and cooperative efforts with other area schools provided the support and encouragement to show success is indeed possible.

Interviewee T11 discussed some of the course changes made throughout the program of studies. He pointed out that many non-college prep courses had been offered for those students who may not have been on a college track. Such classes were considerably less rigorous and did not have the same expectation of students. It was obviously clear that upon graduation, those students were neither college-ready nor college-eligible. By offering only college-prep courses, all students will meet graduation and college-eligibility requirements. This change required a cultural shift on behalf of the entire school community. Students needed to recognize they were capable of such expectations, teachers needed to recognize their effort and focus may require a shift to accommodate all students, and parents needed to recognize and encourage their children through a new challenge.

Many administrators have stated that while it may be difficult to compare Edgewood High School’s graduation requirements with other Massachusetts schools, the school prides itself on having one of the most rigorous graduation standards in the state. The state’s general requirements are four years of English and math, three years of science and social studies, plus a physical education/health curriculum each year
(Massachusetts Department of Secondary and Elementary Education, 2010). Edgewood High School has set graduation requirements as four years of each of English, math, science, and social studies, two years of a physical education/health, a year of visual/performing art, and additional elective course work that exceeds state requirements.

**Incubator of ideas.** Employees welcomed and appreciated the freedom to develop new ideas in the workplace. Many of the Edgewood High School faculty found it rewarding and were encouraged to propose new educational strategies. Almost half of the faculty interviewed mentioned different forms of encouragement they received to pursue grants, ideas, or new approaches to education. T7 noted that one of the positive aspects about Edgewood High School was that, as a new teacher, he was encouraged to try new ideas and concepts that would improve teaching practices. Administrators clearly make the final decisions regarding the school’s direction and system priorities; but they also understand and cultivate the notion that successful ideas can come from anywhere.

This freedom to explore new educational directives contributed to a culture of problem solving and thus modeled college-ready skills. The previously mentioned grant application provides an example of this. Two staff members who initiated the idea of the proposal spoke with school administrators and were encouraged to pitch the idea to the central district office. In a short meeting, the superintendent provided strong support. Even the city mayor and a member of the City Council were enthusiastic and have provided strong personal and political support.
As discussed earlier, the idea for the honors diploma program was initiated within the faculty. The development, implementation, and goal of this initiative demonstrate quite a few characteristics of Edgewood High School’s push to emphasize the assumption of a college-bound student body. Faculty members recognized a need and an opportunity to improve the level of post-secondary preparation.

**Lesson protocol.** The ways teachers engage their students have been studied for many years, not just at Edgewood High School but throughout the educational community. The leadership team at Edgewood High School developed the established lesson protocol (Appendix A) with the help of Research for Better Teaching; a consulting and training organization founded by education leader, John Saphier. This method is intended to be universal with respect to every teacher and every class. The purpose of the protocol is to demonstrate the goal of the day’s lesson, deliver the material, and summarize it. Upon entering the classroom teachers give students a “warm-up.” The warm-up is not used as a part of any assessment or evaluation but rather to simply engage and encourage the student to set up a mental framework. The teacher posts the day’s Mastery Objective for all students to read, stated as “The student will be able to….” The mastery objective is “the what” of the lesson. It should be linked to the Massachusetts frameworks and specifically state what students will be able to do and/or know at the conclusion of the lesson. Part of the mastery objective must include “the why” and “the how;” the purpose and the agenda. Students must understand why the day’s lesson is important and see a step-by-step guide on what they should expect that day. Conceptually, if students understand the purpose and goal of each day’s lesson, they will understand the path and goal of their experience. Once they understand where and why
they are pursuing such activity, they will become fully engaged in the class and learning experience. The learning experience is the lesson itself. As posted, it “implements planned instruction that promotes achievement of the lesson objective for all students” (Edgewood High School, 2009). Every class then concludes with a closure activity that wraps up the material and engages the students in an effort to examine their understanding. When asked about their appreciation of the established lesson protocol, most teachers responded that, while it can be helpful in planning a lesson, it also could be a hindrance.

**Learning walks.** An idea formulated by the leadership team, in consultation with Research for Better Teaching (RBT) and influenced by Marzano (2007), has been the active engagement of leadership in learning walks. About four times each year, department heads and administrators walk through classrooms looking for specified classroom activities such as writing, lesson protocol, or a particular teaching strategy. One learning walk focuses on writing across the curriculum. In classroom visits, administrators examine whether writing is incorporated as part of the lesson, the level of writing taking place, and the rigor of the activity. Each reviewer tabulates data on an evidence chart. All material is compiled and shared with the faculty. An example of the evidence collection chart is included as Appendix G. The experience of learning walks have expanded to include teachers who themselves wish to participate. The idea behind teachers’ participation is a shared experience beyond administration.

That organizational change supported and encouraged cultural change were explained and/or exhibited within the following statements taken from interviews:
Table 6:

*Interview Responses Supporting Finding Three*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Key Phrases / Findings</th>
<th>Themes that Emerged</th>
<th>Theoretical Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>T3</td>
<td>“don’t know if class structure will impact college readiness but it will assist teachers”</td>
<td>Teachers looking for innovative opportunities</td>
<td></td>
</tr>
<tr>
<td>T6</td>
<td>House model will enable small learning communities and greater communication among teachers</td>
<td>Establishing connections with and among students</td>
<td>Artifacts: first level of culture (Schein)</td>
</tr>
<tr>
<td>T10</td>
<td>“Smaller school will enhance message by getting to know families” / students are “not getting message at home”</td>
<td>Establishing connections with and among students</td>
<td>Espoused values: second level of culture (Schein)</td>
</tr>
<tr>
<td>T11</td>
<td>Without MMSI grant, enrollment and growth of AP courses would not have happened</td>
<td>Setting higher academic expectations</td>
<td>Espoused values: second level of culture (Schein)</td>
</tr>
<tr>
<td>T3</td>
<td>Differences between honors and college prep level course: “substantial difference in the willingness to try”</td>
<td>Students are rising to the challenge</td>
<td>“willingness to try” is indicative of personal investment which reads more so of Progressive theory</td>
</tr>
<tr>
<td>T11</td>
<td>“regardless of the schedule, it comes down to classroom instruction”</td>
<td>The effectiveness of the learning experience remains within the classroom environment.</td>
<td>Basic underlying assumption: third level of culture (Schein)</td>
</tr>
</tbody>
</table>

**Summary.** Defining culture at Edgewood High School is a challenge and must be left for another study. Nevertheless, as a result of the many changes implemented, there is an undercurrent of both frustration and excitement. Change is difficult for many to work through and accept. This study does not investigate the impact of changes on the job satisfaction. However, through this adversity, the classroom environment and message of encouraging college-readiness has not wavered. What is clear, and addresses the focus of
this study is that students are more challenged academically and more encouraged to pursue post-secondary education as a result of the progressive ongoing changes that have been implemented over the course of this study.

As the effort and intent of the education environment transformed, the overall culture of the building changed. While “culture” was not a central focus of this study, there is confidence in reporting that teachers and students are working within a different environment than what was existed even 5 years ago. Students are more encouraged to engage in challenging courses, and teachers are expected to provide students a more structured class setting.

This finding was derived through the collected evidence that included, but not limited to formal and informal interviews which were confirmed with the results of the development of honors diploma, expansion of Advanced Placement courses, development of house model, and emphasis on classroom instruction.

**Finding 4: Messaging - a critical influence on college-readiness**

Schein often refers to artifacts that are evident in every culture and to the notion that artifacts reflect the thoughts and beliefs of those who comprise the culture. When the classroom concept of “backward design” (Wiggins & McTighe, 2005) is applied to the entire school’s approach to education, the effort can be defined as “messaging.” In the case of Edgewood High School, the message, the clearly identified artifact, was that all students are expected to be prepared to continue in some form of post-secondary education.
This message, that college is an expected and appropriate post-secondary plan was made clear to students as early as the seventh and eighth grade. Middle schools hosted high school guidance counselors to discuss academic expectations and purposeful course selection. During each assembly, guidance counselors took the opportunity to reaffirm this message. Regardless of course or level, teachers and guidance counselors encouraged students along a path that included post-secondary education.

**Mission.** The school’s current mission statement was written and approved on February 11, 2009. It states, “Edgewood High School challenges all students to acquire the critical and creative skills necessary for success in an ever changing world” (Edgewood High School, 2009). As stated earlier, the concept of content knowledge and skill development were implied toward the area of college-readiness. An invitation to join a vision committee was sent to the entire faculty. A group of approximately 10 faculty members joined this committee, chaired by the vice-principal for curriculum. The first step in their charge was to rewrite the official statement of purpose and goal of the school. The specific term “college-ready” is missing from this statement because of the consideration of students who would not be continuing on to college. (It was during this 2009 time-frame in which faculty was still recognizing the comprehensive meaning of the term “college” as presented in finding one.) The broader concept of development of skills for all future success includes the total student body. Not every student will continue to formal post-secondary education, but it is clear that every student must possess similar skills for life.

As part of the school’s mission, there is included a series of learning expectations with a lead-in line that states, “Edgewood High School expects its graduates to possess
these college-ready skills:” (Edgewood High School, 2009). Within this list of skills is a series of academic, civic, and social topics that themselves include a list of specific skills; communication, critical thinking, creative thinking, information, technology, community, global awareness, interpersonal, and intrapersonal. This list was derived from lengthy discussions which included numerous references to the model described by the Partnership for 21st Century Skills.

The concept of “backwards design” (Wiggins & McTighe, 2005) is a central component of the Edgewood High School mission and its learning expectations. By setting the long term goal of preparing students “for an ever changing world,” Edgewood High School’s mission assumes a goal of life-long learning.

**Whole school improvement plan (WSIP).** Each year, the school principal is required to produce the WSIP, an effort developed by the current district administration. This document serves as the guiding set of goals for the school in a specific year. The process for developing this document involves identifying perceived priorities for growth and improvement. Those subject areas are supported by data as needing focus in the form of a school-wide effort. The principal shares their direction and collaborates with the school’s leadership to finalize appropriate goals and approach for meeting the stated challenges.

Of the four “focus areas” presented in the 2010-2011 plan, the first three addressed (1) student achievement, (2) professional learning communities, and (3) school culture/climate. Purposely written together, these three goals worked in a collaborative fashion to support the student-expectations for learning, the upcoming changes to the
organizational structure, and improving the school culture around a college-ready environment.

**Challenging course work.** The implicit recognition that more rigorous course work provides for a better preparation for post-secondary education was made explicit by the efforts of the faculty and staff. Through a variety of efforts the community is engaged and provided an explanation of the goal for developing college-readiness skills. These efforts included, but were not limited to teachers who stayed well beyond contract hours to support students, and guidance counselors who maintained open communication and encouragement with students and families.

Students who feel supported and encouraged achieve a greater level of success. Edgewood High School teachers willingly provide the necessary extra time and attention well beyond the normal school day in order to assist students. The faculty takes pride in raising the level of instruction and increasing the number of students who successfully comprehend the material. Validity of this statement is provided through teachers who rather than assigning “detention” or “session hall” for missed homework and lower grades, these teachers and deans are assigning academic enrichment to students who may need extra attention. The superintendent has made it clear she expects this attitude and approach from all teachers. Those students who might not find success must be challenged, encouraged, and brought to a point where they can achieve. This means not only passing the coursework, but also successful enrollment for all students in more rigorous honors and AP courses.
A successful school could be defined as having an innovative education environment where students are encouraged to take more difficult course work, all supported by a strong, respected leadership. The education that takes place must incorporate an effective relationship between established course content and skill development; where the content is proven and the skills are both practical and productive. Throughout all coursework (college prep, honors, or AP) is implementation of the lesson protocol.

*Table 7:*

*Interview Responses Supporting Finding Four*

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Key Phrases / Findings</th>
<th>Themes that Emerged</th>
<th>Theoretical Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>T10</td>
<td>After SCANS and A Nation at Risk there was “A gradual ramping up of expectation – messaging – that it is no longer ‘vocational’ education, we expect better; AP, MMSI”</td>
<td>Traditional “Vo-Tech” is no longer enough. Need to communicate - all students need to build academic skills.</td>
<td>Student need to know content: Classical theory</td>
</tr>
<tr>
<td>T3</td>
<td>“…there is something greater going on in this classroom – (I want to) evoke some passion”</td>
<td>Desire to have students understand a greater reason/</td>
<td>Love for learning is reflective of all education theories</td>
</tr>
<tr>
<td>T11</td>
<td>“…need to instill that college-ready skills are expected”</td>
<td>Students need to know what the end goal of education – what is the purpose?</td>
<td>Incorporated in 21st Century Skills: Progressive theory</td>
</tr>
<tr>
<td>T9</td>
<td>“AP courses were for ‘the best of the best,’ now AP is for everyone”</td>
<td>Every student is expected to push and be academically challenged to meet college-readiness expectations</td>
<td>Re-dedication of high rigor to greater number of students: Classical and Progressive</td>
</tr>
</tbody>
</table>
Summary. As this study set out to uncover how Edgewood High School approached the goal of increasing college-readiness in all students, specific findings were uncovered and described in the first three findings above. However, it became clear that without establishing a clear message, the first findings may not have ever taken hold.

By establishing an explicit purpose to the education environment and weaving that purpose throughout the school, a culture was developed. Over the course of five years, a shift in emphasis took place. Where at one time the school community did not express high expectations, it appears the school community has brought purpose to education with high expectations. More so than simply teaching students with only the goal of a high school diploma, Edgewood High School faculty members are working to provide a high school education that is designed to produce students who college-ready. The explicit messaging that post-secondary education is a key in a global economy and a benefit to the individual’s success was the linchpin to developing a college-ready environment. As evidenced by the post-graduation plans, (Appendix H) students are continuing on to college in larger numbers.

This finding was substantiated through triangulated evidence that permeated the school environment. An eager faculty and administration provides ample opportunity to promote college as a positive post-secondary opportunity. This messaging is embedded in all decisions, goals, and initiatives such as the WSIP and challenging course work.

Relationship of Findings to Theoretical Framework

The single theoretical framework used throughout this study included insight from both classical and progressive theories. These two theories are central to the discussions
regarding what and how should teachers teach. Classical theory’s requisite that comprehensive content knowledge be delivered is ensured through the Massachusetts Curriculum Frameworks. The principles set forth by progressive theory are also met when teachers employ strategies such as 21st Century Skills or the lesson protocol developed at Edgewood High School (Marzano, 2007). This simple combination aptly describes and defines Edgewood High School’s approach to developing college-readiness in all students. However, the process is considerably more involved and extends beyond a theoretical approach.

Dewey’s progressive theory that “knowledge is no longer an immobile solid; it has been liquefied” (1916) remains a point of orientation. Edgewood High School has managed to combine this tenet with the classical theory’s focus on teaching critical content material. Where early classical theorists advocated an approach to instruction focused on critical content, it appears that such critical content has grown to include certain interpersonal or skill-based attributes. In doing so however, there are traits and characteristics to each theory that make such a combination both more and less attainable.

Conclusion

The four findings described here provide an outline for developing an environment geared towards developing college-ready students.

1. Faculty understanding of the concept of “college-readiness” deepened over time
2. Faculty developed new balanced instructional strategies
3. Organizational change supported and encouraged cultural change
4. Messaging was a critical factor and cultural influence on college-readiness
The critical component to these findings is the interconnectedness between each. If each effort were to be undertaken individually, the results found at Edgewood High School would not have been the same.

These findings translate into a series of practices that hopefully can be replicated in other schools. Recognizing that the classical and progressive theories will provide a clear guide for what and how to teach, it is the personal characteristics that may determine success. In the following chapter, these findings will segue into a detailed description of what was learned and plans for application.

A pragmatic linkage of theory and practice has taken place at Edgewood High School. The delivery of content material within the context of teaching skill development is not an easy task to set upon, but it is an important one. It is a task that, as recognized by the faculty and administration at Edgewood High School, must be done with the long term goal of developing college-ready graduates. This goal itself is accomplished through the collective efforts of many individuals throughout the school and greater school district. (One example of this effort is the development of vertical alignment teams; where high school department heads meet with middle school faculty to ensure seamless transition throughout curriculum.) This goal is also accomplished through innovative teaching strategies and a willingness on the part of many individuals to invest in risk taking. This goal of developing college-ready students requires individuals coming together to work as productive teams; putting aside previous understandings and beliefs to come together in a professional learning community. Accomplishing this goal requires a lot of work.
Chapter 5

Discussion of Research Findings

As a case study, this work has provided the unique opportunity to witness the deliberate decisions, curricula development, and the change process that led to an education environment designed to enhance the development of college-ready students. This study documents many of the efforts of the past five to ten years throughout Edgewood High School. All were undertaken with the intent to improve the education and environment surrounding all students at Edgewood High School. A recognized limitation of this study is the fact that there is no articulated measurement for college-readiness. No such study has ever been conducted, nor does this study define any such measure. Rather, this work describes the decisions and actions taken that stem from an implicit understanding of the need to restructure Edgewood High School’s curriculum, instruction and culture in order to ensure that every student would be prepared for post-secondary education.

The results of this study show that in developing college-readiness in students, teaching and environmental factors are not isolated from one another. They are connected in a long term and practical application. This organic relationship promotes the application of skills to the understanding of knowledge. The “chicken and egg” mentality between teaching content material and skill based knowledge needs to be avoided. Instead, a symbiotic relationship between content and skill must be recognized and supported as they support each other. This study was intended to explain how Edgewood High School developed an educational infrastructure to accomplish this.
Purpose of Study

The primary goal of this study was to understand the development and implementation of an improved, effective college preparatory curriculum for Edgewood High School. Three key components of this study are (1) to define the term “college-ready” in the context of the 21st century; (2) to identify the qualities that define a college-ready student; and (3) to describe an improved curriculum that results in greater postgraduate student success.

The origin of this study evolved from a series of actions and decisions focused on the goal of increasing the level of college-readiness in all students. In many cases, the strategies used at Edgewood High School can be transferred to other schools that are investigating similar opportunities for increasing the level of college-readiness in their students. This study concludes that in order to increase the level of college-readiness in all students there must be recognition of the relationship that exists between content material, skill development, and the educational environment in which students engage learning.

Edgewood High School has made significant improvements. Currently, graduates are more likely to attend (Appendix H), and presumably (based on the increased number of honors and AP participants, Appendices C & E) find a greater level of success upon enrollment in a post-secondary education program. It is hoped that the experiences and knowledge gained can be used by other schools. It is important to recognize that within the purpose of this study is a focus on the curriculum and its organizational delivery and how it was designed within the context of college-readiness. Where a school is a fluid
inter-personal organization, there are personal implications of decisions that were not part of this research. The term “culture” throughout this purpose is not to instigate interest in inter-personal involvement but rather, used as a general term to describe the investment made by school stakeholders.

**Research Questions**

As stated in the introduction, the primary goal of this study is to understand the development and implementation of an improved, effective college-readiness curriculum for Edgewood High School. The primary question, what specific steps did one particular school take to develop needed college-ready skills, assess its progress toward improvement and ultimately, change the culture from one of relative complacency to one of determined improvement, focuses on school personnel’s recognition of the need and the strategies they developed to improve college-readiness. A second, underlying question asks -- how have organizational structures and programs that support the development of college-ready skills been designed and implemented? -- focuses on the school’s organization of the faculty, class schedule, and practices in light of their impact on college-readiness. These two queries are considered through parallel investigations into the development and implementation of the lesson protocol, steps taken to make changes, and students’ demonstration of their level of college-readiness. These supporting concepts are integrated throughout the investigation.

To answer the question concerning “how” the concept of college-readiness was addressed, the big picture of the school’s operation was reviewed. Increasing the level of
college-readiness was accomplished through the coordination of numerous efforts. These events have been simplified and laid out as the four key findings.

**Implications of Findings on Theoretical Framework**

The research conducted at Edgewood High School both complicated and confirmed much of what education theorists like Dewey and Hirsch wrote and believed. The complication discovered is reflected in the fact that what Edgewood High School discovered was that a successful strategy is not solely one or the other theory, but rather both contribute to meaningful change in student and teachers attitudes and practices. The concept that both the classical and progressive theories played a significant role and confirmed the inherent value of each other, led to this understanding.

**Confirmation of the theoretical framework.** By treating the two theories (classical and progressive) equally, it gradually became clear that both theories were not only complementary but central to the school’s success. These two theories, formulate one framework. In essence, they confirmed each other. The dedicated teacher-leaders at Edgewood High School, working in conjunction with classical and progressive theories have been able to define and describe a comprehensive approach to education that provides both content knowledge and skills based learning - all focused on developing college-readiness.

While this study did not have the opportunity to solicit a large number of student interviews nor quantify what student input was collected, there were notable responses. Student experiences confirmed that instructional practices at Edgewood High School are productive. In informal discussions, many students expressed the intent to attend college
and understood the different demands that would be expected of them while enrolled in college.

Students (grad4 and grad5) commented on how they had learned to recognize critical material presented within a class lecture and how that would translate into the college and workplace environments. All students spoke about how they learned to focus their approach or attitude toward learning as a critical experience. Their comments demonstrated an understanding that developing a work ethic was as important as developing math skills, that those two ideas worked together to create a productive mindset for future success in school and work.

**Complication of the theoretical framework.** One of the factors that complicated the implementation of the numerous initiatives at Edgewood High School could be described as the human factor. A school is a living organism populated by teachers who have their own thoughts and teaching styles. For example, as the lesson protocol and MMSI initiatives were integrated, there was considerable debate regarding their merits and impact. Negotiation between administration and the local teachers union was necessary to come to an understanding that the “work environment” would not be negatively impacted. In particular, members of the faculty were concerned that part of the MMSI grant involved providing monetary rewards to teachers for each student who achieved a qualifying score on the AP test. Faculty concerns for the lesson protocol centered on the belief that teachers were being told how to teach rather than permitting them to develop their own approach.
In each of these cases, administration took time to explain the end goal and purpose. By making connections between the initiative and its relationship to the goal of developing college-readiness skills, a greater proportion of the faculty understood why decisions were made.

**Contradictions of the theoretical framework.** While not a negative contradiction, there are important aspects to a college-ready education that fall outside the classical approach. There must be recognition of the potential for an over-emphasis on content. While classical theorists such as E.D. Hirsch maintained that skills are developed alongside content, much of the literature presents a stronger focus on content. This study demonstrated there are certain skills (e.g. research, communication, critical and creative thinking) that must be treated with the same importance as content.

Not necessarily a contradiction but a strong concern falls well outside both classical and progressive theories. Students need to develop a respect for and strengthened approach to personal work-ethic. Student ownership of their own education is a critical piece to the education foundation schools are working to build. It should be noted that the parental support students receive at home is equally important. This concern for student engagement in their own education may not contradict classical or progressive theories, but neither was it addressed.

**Implications of Findings for Existing Literature**

Similar to the understanding and application of the theoretical framework, the efforts undertaken at Edgewood High School have the same relationship to the literature. As a direct example, the first finding speaks to the deepened understanding of the term
college-readiness. Literature provided the confirmation administrative used to in turn teach the teachers.

**Finding one and literature.** Finding one, faculty understanding of the concept of college-readiness deepened over time, provided a source of confirmation to Conley’s (2007) definition of college-readiness. It is unknown how many faculty members utilized a direct use of literature to develop their personal understanding of college-readiness. However, it is understood that members of the administrative team read and shared their understanding of modern college and work place trends leading to the understanding of a need to re-define college-readiness to what it stands today.

**Evidence confirming finding.** The working understanding of “college-readiness” at Edgewood High School has been that graduates have the ability to enroll in some form of post-secondary educational program without the need for remedial course work (Conley, 2007). The study demonstrates that while there may be differences regarding how to develop college-readiness, the definition of “college-ready” was undisputed among those interviewed at Edgewood High School. Interviews conducted revealed unanimous agreement on the understanding that “college-ready” embraces both content and skill based knowledge. There was however a strong tendency to emphasize skill development in the classroom. The Massachusetts State Frameworks (http://www.doe.mass.edu/frameworks/current.html) for teaching content material were and are considered to be comprehensive and trusted to provide sufficient foundational knowledge. This understanding of the established Massachusetts Frameworks lends itself to time and effort that can be focused on skill development. Faculty members assume the responsibility to teach skills that support the application of content. Asked “what is your
goal for each graduate?” a positive post-secondary placement into some form of education or training was again a universal response.

T2 discussed one specific former student with whom he still communicates. This Edgewood High School graduate was enrolled in a college prep track while in high school and began college but quickly dropped out for a time. T2 spoke of his conversations with this alum and their reasons for dropping out of college. T2 explained that the alum’s response was along the lines of, “I was not ready; I was prepared academically, but not really ready.” Pressed further, grad2 explained that the alum described the difference between eligibility and readiness in terms of personal maturation.

This was not always the case. Anecdotal evidence suggests that a large majority of the faculty did not originally have this understanding. Not only until recently, when through professional development did the current definition of both “college-readiness” and “college” itself was fully explained. It is understood that in past years college-readiness meant that a student had met application minimums (today’s understanding of “college-eligible”). And that “college” was defined as traditional four-year universities. In contrast to the current understanding that all post-secondary educational programs demand the same thinking and learning skills. While colleges may have a clear range of rigor and expectation, they all have the same expectation that incoming students are fully prepared and ready to meet new challenges.

To put a tangible point on the expansion of the faculty’s understanding of college-readiness is to mention the staff transition that took place from late 1990’s to early
2000’s. While not a primary focus or search of this research, it was noted that a large turnover of faculty took place during this time from. As the result of a large number of retiring teachers, a large influx of teachers, recently graduated from college, entered the professional faculty. These recent college graduates would grow into leadership roles and have a great influence on students. It is assumed that these teachers, who are now student counsel advisors, basketball coaches, and department heads, brought with them their enthusiasm and recognition of what the college environment demands. It is fair to speculate that this group of teachers brought with them the tools to effect change. In fact the honors diploma program was the result of three teachers who were hired during this timeframe.

**Content/framework/material.** As described through the literature and experience, the Massachusetts established frameworks for teaching curriculum are regarded as comprehensive. Scholars such as Hirsch and Conley and leading practitioners have acknowledged that “what” students in Massachusetts are taught meets or exceeds the standard for college-readiness.

**Evidence complicating and contradicting finding.** Finding one speaks to a deepened understanding of college-readiness that occurred. As a whole, those interviewed did not provide a sense of contradiction nor complication to any of the literature employed for this study. However, throughout some of the interviews and various discussions, there was a consistent need to re-visit the definition of college-readiness.
There appears to be a certain level of misunderstanding of the post-secondary education expectations of all students. Where some students may have a desire to attend a top tiered university, such expectations are different from that of others or even a technical training center. For example, the graduate who wishes to pursue a degree in economics and the graduate who wishes to be a licensed plumber both need a specific skill set and comprehension of content knowledge to be college-ready in each of their own fields. Neither should be considered more or less demanding, only different. It is this difference that provides the complication to this finding.

In some individual cases, teachers may not have agreed with the concept that all students must continue on to college after their graduation from high school; as was the case with the political statement that all Americans should commit to post-secondary education (Obama, 2009). However, most agreed that students should be prepared for post-secondary training of some form, be it college, trade school, or other. It is the term “should be” that provided the most interesting feedback leading to a level of contradiction within this finding. Interviewees T3, 6, 8, and 10 all expressed their apprehension (at varying degrees) that all graduates are prepared for college. Pushed further, the conversation circled back to the contradicted differences in post-secondary opportunities and may have required clarification.

**Implications of Findings for Practice**

Concepts and ideas can be developed and have a strong tendency to appear to be successful prior to their implementation. The introduction and application of these new concepts may not always be a seamless transition. In the case of Edgewood High School,
the desire to improve the level of college-readiness was confirmed through the theoretical framework and literature. It was complicated in putting it to practice. Stated as both a limitation and potential for further research, the staff inter-personal dynamics of a school system led to the most difficult aspect discovered throughout this study.

Faculty members could be taught to comprehend a new, modern definition of “college-readiness,” but convincing an entire faculty to implement new teaching strategies or changes to courses taught is a different and complicated challenge. Findings two, three, and four each explore this complication as it is put into practice.

**Finding two and practice.** While the content taught is dictated by the state frameworks, the faculty has autonomy in implementing appropriate strategies for teaching that content. Finding two recognized that faculty developed new balanced instructional strategies. Assignments, lessons taught, classroom discussions, and instruction material are all important components to teaching. Convincing faculty to implement new strategies proved to be a complicated process. In many cases, the effort implemented was to convince teachers that administration was not assigning additional tasks to teachers, but rather providing supplemental and supportive classroom strategies. By demonstrating how global demands on the labor market have dramatically changed within recent years, faculty members began to understand the need for modifications to teaching strategies. Some faculty just didn’t know how.

**Evidence confirming finding.** An ad hoc 21st Century Skills committee produced a white paper for the administration describing the two basic concepts of developing college-readiness skills in the classroom:
(1) Students must build on the core academic subject knowledge and

(2) Using a variety of teaching techniques we will teach our subject knowledge in a way that helps our students become critical thinkers, problems solvers, good communicators, good collaborators, informative and technology literate, flexible and adaptive, innovative and creative, globally competent, and financially literate.

In sharing this approach with the faculty, it was clear that while content taught was predicated on the state frameworks, the skill development can be adapted. Rather it is the learning process and subsequent application of the material that requires forward thinking. The “what” does not change, but the “how” can be maneuvered to fit each student’s needs.

This approach led to the implementation of online learning forums, changes in testing techniques, and tailored teaching styles. Teachers who fully embraced these approaches were named in many of the student interviews conducted throughout this study. These students credited specific teachers and styles with preparing them for college.

*Skills/environment/expectation.* Through both school-wide efforts and individual classroom activities that support and enhance the curriculum, teachers are providing environmental mechanisms for developing college-ready skills. It could be confidently assumed that some teachers are more likely to engage in new strategies more comfortably than others. It is this group of early adapters that establish a benchmark for others. By demonstrating how creative strategies can be implemented, and by solving problems that may be inherent, this group of teachers played a critical role in the change process.
Evidence complicating finding. Throughout this study, classrooms were visited on a number of occasions. However without visiting classes on a more regular basis, it is difficult to comprehend to what extent the various instructional practices contribute to student’s college-readiness. More-so, when students were interviewed and asked their thoughts on how teachers’ classroom practices contributed to their learning, students did not recognize unique or purposeful efforts. It appears that such development of classroom strategies, focused on college-readiness, may not have been recognized by the students themselves.

Evidence contradicting finding. A few of the faculty members have expressed their lack of appreciation for the lesson protocol. As an expected classroom design, this lesson protocol was designed to provide consistency and a frame for each day’s lesson in each class.

Of those interviewed, T 3, 6, and 9 expressed their displeasure with the established and expected protocol. For some the protocol is too confining and limits the teacher’s daily approach to the lesson. Outside of formal interviews, other teachers agreed that the “one-size-fits-all” approach to the protocol is too cumbersome.

Finding three and practice. Finding three states organizational change supported and encouraged cultural change. Again, the interpersonal nature of a school contributed to the complication embedded within this finding. In the eyes of some, changes to the class schedule amounts to a change in work environment.

Evidence confirming finding. The recent implementation and changes made to scheduling practices, advisory periods, and the house model were studied and designed
with the singular purpose of providing an education geared toward post-secondary success. Edgewood High School has not implemented revolutionary ideas. But rather, the collective effort and progress made is the indication of success and confirmation of the findings. Countless other schools utilize an identical class schedule or house model. What has been unique to the development at Edgewood High School is the consistent message of post-secondary progress. This messaging produces both implicit and explicit developments. For example, implicit concepts include the encouragement of more rigorous coursework or post-secondary plans that lead to continued education. Explicit programs include dual enrollment, the honors diploma, or MMSI.

In the spring of 2009, an assistant principal sent an email sent to the entire faculty describing “a mandate for reform.” The email was intended to be a call to address the needs and goals of a school-wide transformation. This call for change came two years into the new administration and marked a new way of conveying the education process.

“Our mission is a difficult one. The evidence is manifest in the mounting concerns registered across the building. Ever increasing targets, still evolving systems of accountability for both schools and teachers, and widening expectations of inclusive success all contribute to an almost crushing sense of pressure on our daily work…Too many legitimate complaints go unremedied (sic) because they stem from structural issues. While there is no panacea for the challenges we face, we believe that, along with improved instruction, a fundamental transformation of the way we organize our work can make a real difference in our overall effectiveness.
To this end, the Edgewood High School administration is calling for a redesign of our organizational structure: the house system.”

The emailed white paper went on to list eleven parameters of the new model. Its first was: “The new house model will ensure college-readiness.” The rationale behind decisions and changes over the next two school years were deliberately focused on increasing college-readiness.

Organizational structures and programs supportive of college-ready skills were designed and implemented through purposeful development, systemic discussion, and with an eye towards improving each student’s personal post-secondary goal. Budget constraints have prevented implementation of some concepts. However, every effort has been made to provide a comprehensive college-ready education.

One of the greatest organizational commitments made to improve the level of college-readiness is one that provides students greater access to the application process. For the 2011-2012 school year, the seven member guidance counselor staff was divided among three house offices. With two counselors assigned to each house office, the remaining counselor was assigned new responsibilities. This individual is currently labeled as the “transition counselor” and is charged with a variety of post-graduate planning responsibilities.

In addition to assisting students with their college search and application process, this position is being asked to establish relationships with the three district middle schools. The transition counselor is expected to enhance the pipeline and provide a linking relationship for both students and teachers between schools. Utilizing messaging
focused on raising college-readiness awareness, students and their parents will have a
dedicated staff member whose primary charge will be to provide a framework for
increasing student preparedness for college.

The 2012-2013 change to the class schedule is the last major change geared
toward the improvement of college-readiness. It is the understanding of the
administration that by changing from the current four-by-four block schedule to the five-
by-five-by-five trimester schedule, students will have greater access to Advanced
Placement coursework. Current credit and graduation requirements make it difficult for
students to take more than two Advanced Placement courses in their junior or senior year.
The forthcoming schedule change is expected to provide more opportunity to enroll in
Advanced Placement courses. Administration also expects to develop more access to
challenging elective courses that will provide exposure to areas of study not previously
available.

Again, the idea of “expecting more of students” plays an important role. Near the
conclusion of the vetting process of a new class schedule the students themselves played
an important role. The students themselves were given a voice in the decision making
process. During one Advisory Period, students were provided the scheduling options
determined to be the most productive for the desired results of increased education
practice and access to challenging programs.

This exercise of allowing students a seat at the table of the decision making
process was welcomed and respected. Students were also afforded the opportunity to
have a voice in the discussion regarding the use of cell phones and other electronic
devices within the building. Students are also given a vote in the decision of the summer reading book list. This practice of giving students a voice is an important aspect of placing trust that leads to maturity and positive decision making skills; all of which are important components of the development of college-readiness skills.

**Evidence complicating finding.** Any change to the class schedule or class size is considered a change in work environment. As such, members of the teachers’ union must approve any changes and amend the negotiated contract. The enacted and proposed changes have been a source of great debate throughout this study. Once again, recognizing that a school is a fluid inter-personal organization, there is a tendency for backlash against change, particularly what may be considered fairly drastic change.

Many teachers and students favor the current four-by-four block schedule as it provides for a teacher-prep for one period (a quarter of the day) and students to potentially have multiple classes without homework (e.g. art, physical education). To change from an arrangement as this may not be welcomed by all, regardless of the intent. Attitude toward changes may influence and complicate this finding.

**Evidence contradicting finding.** It is difficult to identify specific contradictions to this finding. Throughout the evidence collected, there is record of displeasure in changes or a desire for clarification of purpose, but nothing to truly contradict that effect the organizational changes had on the development of college-readiness.

**Finding four and practice.** A clear and articulate statement of purpose can influence the outcome of organizational goals. As the fourth finding states, messaging was a critical factor and cultural influence. For Edgewood High School to improve the
level of college-readiness in students, the school had to articulate this goal in numerous explicit and implicit manners. This held true not only for students, but for all stakeholders including parents, faculty, and school committee members.

**Evidence confirming finding.** Messaging was one of the more critical components utilized. Messaging was accomplished through implicit and explicit means. Increasing the rigor of courses offered was accomplished in two ways. The first effort (implicit) was the removal of specific classes from the high school’s course offerings (e.g., introduction to geometry, basic college math II, calculus honors). Many of these classes were dropped because teachers felt that the curriculum was not challenging. The belief was that instead of taking Discovering Geometry (which was not a college preparatory course), a student could instead, with the proper support be successful in a full geometry course (T11). The same approach was used when the school dropped honors calculus. Students who could perform at the honors level should be able to pass Advanced Placement (AP) calculus, with adequate support. Students responded to this change; failing grades actually decreased as students became motivated by the other students in the class.

The second part of this effort was the explicit encouragement for students to enroll in honors, AP, or dual enrollment courses. Such changes recognize that while post-secondary goals of students may vary, the expectation of continued education should guide their preparation. The school’s administration conveyed this message in a variety of ways, including but not limited to curriculum design, skill development, leadership, and cultural expectations.
Active implementation. Leadership throughout the education system must not be limited to administrators. Rather, constructive ideas and successful implementation come from any level and any source. Schools that provide an environment that supports innovation realize the great benefit that comes from both new ideas and the sense of ownership staff and community members experienced. All stakeholders feel increasingly invested when they understand there is an opportunity to contribute to the greater effort.

Students respond to challenge and when provided both support and opportunity are capable of great progress. The same can be said for the professionals who educate them. The efforts demonstrated at Edgewood High School are examples of the combination of challenge, support, demand, and high expectations.

This research can be used as a stepping stone for educators wishing to investigate a process to increase the level of college-readiness among students. Through an understanding of the definition and parameters of college-readiness, educators can begin to design their efforts. Through established curriculum, development of teaching skills, and consistent messaging throughout a building toward a college-readiness pipeline, other schools can develop purposeful strategies. Many of these programs can be replicated at other schools.

As mentioned earlier, the new teachers hired during this time frame also encouraged the notion of college-readiness. It appears through their recent experience of the college classroom and what college professors are looking for, these recent college graduates took the same approach to their own teaching style. By not emphasizing rote
memorization but rather encouraging an application of skill to the classroom, students recognized and appreciated a different approach to teaching and learning.

Evidence complicating finding. Looking back at what complicated finding one (faculty understanding of college-readiness deepened over time) the same could be said for messaging. When teachers questioned or misunderstood the term “college-readiness” those individuals may have had different anticipations for different graduates. The same message sent could also be misunderstood by students. Individual students need to hear individual messages. This may not always be the experience. A majority of teachers have now come to a recognition of how college is defined as any post-secondary education. Now, students need to come to this same conclusion. A majority of students still may think college as a traditional four-year institution. Messaging will need to continue and expand its reach.

Evidence contradicting finding. College planning resources available to students have been decreased. Typically guidance counselors are the key provider of college information. They meet with each student to discuss classes, goals, and aspirations. With the staff reduction to the guidance department, it is increasingly more difficult to provide this resource. This is a contradiction to the message that college planning should be a focus for all students. Counselors are decentralized. Students lack resources to aid in college planning, contradicting the intended message that college is an important goal for post-graduation.

Implications of Findings for Further Research
Potential for future research has been laid out throughout this current study. Clearly, a quantitative study of Edgewood graduates in post-secondary education in terms of their success and progress would be a helpful and clarifying next step. Future research could be conducted in a variety of ways. In terms of a quantitative or qualitative study, an understanding of the effect of the decisions and actions taken at Edgewood High School would contribute to the greater body of knowledge. There is confidence in this study’s recognition of the theoretical framework in terms of college-readiness woven throughout the decisions and actions taken. The long term results of these actions should be a source of future research.

The complications uncovered within findings two, three, and four should be looked at within the context of inter-personal relationships. The progress of leadership, organizational culture, and decision making was not part of this study’s design, but could lead to further research.

“Organizational change” as basis of future study. It is clear that throughout the time frame of this study, the one constant at Edgewood High School was change. Change in terms of personnel, organization, material taught, and overarching focus throughout the education environment. This concept of change could play an integral role in further research. Schein’s model of culture (1992) would provide a key component to any such study. In utilizing his three components of culture and their interrelationship, such an application to a school system’s decision-making process could provide a fruitful research subject.

Limitation
It must be clear that a limitation of this study is the lack of previous information or evidence compiled or studied as to the level of college-readiness in previous students. It is not known how many students could be considered college-ready or to what degree. This study looks at the process in which decisions were made as well as the evidence used to support those decisions to implement both curricular and environmental changes with the goal of increasing the level of college-readiness. As a qualitative study, the evidence used and data collected provide a narrative of understanding college-readiness and an outline for implementation of appropriate change. There is no quantitative data of the school’s effectiveness before or since this study. It can be said with great confidence that as a result of the efforts made at Edgewood High School, the level of college-readiness has increased in more students.

Conclusion

Research throughout this study identified four key components to increasing the level of college-readiness in students: (1) that faculty must fully understand the defined concept of college-readiness, (2) that instructional strategies should be balanced between strong content knowledge and skill development, (3) that organizational efforts should support cultural changes, and (4) that clear articulation of the goals through implicit and explicit messaging ensures understanding by all stakeholders.

Scholarly significance. Over the course of an individual’s lifetime, “school” is the single civic institution that every American citizen encounters most. It is understood that continued post-secondary education is a stepping stone to greater economic earning potential and progress. Secondary education faces the challenge of preparing highly
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qualified graduates who have the ability to take that step. The high school environment is unlike any other. It has the potential to greatly influence individual student success. As part of the total national educational system, schools influence the nation’s progress, as described in A Nation at Risk. How schools and education personnel address that role has been the topic of countless discussions. This study investigates one particular high school’s commitment to improvement.

This embedded case study documents many of the efforts throughout Edgewood High School during the past five to 10 years to improve the level of college-readiness of all students. This work has provided the unique opportunity to witness the compilation of purposeful curricula development, decisions, and change process.

Through these changes and programs implemented, one could surmise that too many changes were implemented at the same time. The logic behind such changes was developed through the recognition of opportunity. It was understood that the opportunity to impart change would not always be available. There were administrators in place who trusted and encouraged the exploration of new ideas. Knowing that such a window could close at any moment due to a change in personnel, many of the changes were put into place quickly. While well thought out and developed, these organizational changes had a great impact on the day-to-day functioning of teachers. It could serve as a warning to others as to not impart so many changes so quickly.

Students themselves have complimented Edgewood High School on the college-ready foundation they have been provided. Of the students interviewed, 100% responded they were satisfied with their academic experience. This question was asked of the same
students on two different occasions; the first at the conclusion of their senior year and the second during the first year after their graduation. On both occasions, most students indicated they were satisfied with their Edgewood High School experience.

“Do you feel prepared to continue your education after Edgewood High School?”

- I think academically – yes; I’ve never worked so hard in my life (grad1).
- I feel as much prepared as I could be; the work load (referring to AP and honors classes) goes much more in-depth (grad3).
- The teachers we had senior year really treated us more like college students, so I feel more prepared than I did at the end of my junior year (grad2).
- Pretty confident; teachers gave me the tools I’ll need; learned to take notes, do research – based on what college will be like (grad6).
- Student counsel provided opportunities to get involved, talk with administrators, plan events (grad7).

One student in particular seemed to be very anxious about the college environment. While confident in his preparation, he was more worried about the environment. “If you don’t get it you fail, if you ask a question you’re made to feel stupid.” This attitude was not shared by any other participant. However, it does raise the concern for a need to foster a more productive and positive understanding of the college environment and expectations. In the follow-up interview, the student laughed at his original assumptions about college. “I was completely wrong about my expectations. I thought I would fail all my classes and I made dean’s list.” He continued to describe his misconceptions of the social aspect as well. He made friends and was comfortable on the college campus.

The existence of change within a school is constant. Reaching agreement upon the appropriate change is difficult. Recent federal and state educational reforms have been substantial and their implementation has brought about significant changes. With the
1983 publication of *A Nation at Risk*, attitudes toward the global intricacies of local schools were challenged. Ten years later, the Massachusetts Education Reform Act of 1993 was enacted. Both of these far-reaching events addressed the concept of preparing all students for success and post-secondary education with the recognition that local, state, and national progress rests on the success of the education system. Currently, the implementation of the Common Core standards is addressing the need to raise that standard once more.

As classroom curriculum is best developed with a purposeful end goal in mind, so too must a school have a goal for each of its graduates. In the case of Edgewood High School, that end goal is that students have the necessary skills and knowledge for success in post-secondary education. Personnel, practices, strategies, and programs are all geared towards “what’s next” for the student. Whether every student continues directly to college is not the intended focus, but rather that every student has the skills to be successful in college whenever they attend.

Establishing high expectations must be connected to the establishment of high standards. Graduation requirements set for Edgewood High School students are among the highest in the state, exceeding established state requirements and the newly developed Common Core national standards. However, students must be encouraged and provided a productive environment to develop as a fruitful learner so that they are fully prepared for their personal post-secondary aspirations.

It is my opinion that many of improvements to the level of college-readiness were the result of a mutual academic and cultural shift toward improving standards and
expectations. It is fair to speculate that neither the academic improvements nor the cultural understandings could have produced such dramatic results without the other. After all of the implemented changes, it makes one wonder about the long term and practical application on students’ college-readiness.

A brief four question survey was given to randomly to 27 juniors at the end of the 2010-2011 school year. Questions asked focused on post-secondary plans and the student’s attitude toward Edgewood High School’s level of preparation. Overwhelmingly students responded that their goals involved attending college and that Edgewood High School challenged and prepared them.

(1) What are your plans for after graduation?
   College-22   Military-1   Other-11   Work-0
(2) Do you feel you have been challenged academically?
   Yes-20   No-6   neither-1
(3) Do you feel academically prepared for college?
   Yes-19   No-7   neither-1
(4) Do you feel you have been encouraged to take more difficult classes?
   Yes-19   No-8

The results of this short survey are indicative of the larger picture at Edgewood High School and reflect precisely the extent to which students are beginning to shift their expectations. Edgewood High Schools’ efforts to encourage and prepare all students to pursue productive post-secondary endeavors have begun to be realized. At the most fundamental level, students are beginning to feel that they are prepared for that pursuit.
References

ACT and The Education Trust. (no date). *On course for success: A close look at selected high school courses that prepare all students for college.* Iowa City, IA: ACT.


President's Council of Advisors on Science and Technology. (2010). *Prepare and inspire: K-12 science, technology, engineering, and math (STEM) education for America's future*. Washington, DC: Executive office of the President.


http://www.pioneerinstitute.org/blog/education/ed-hirsch-on-education-in-massachusetts/


http://www.socialresearchmethods.net/kb/qualval.php

Tocqueville, A. d. (1851). *American institutions and their influence*. Downloaded from Amazon.com: [Kindle version].


Planning

Warm Up:
Sets up the students' mental framework.
Is short in duration
Helps transition students
Is linked to but not essential to the mastery of the objective

Framing the lesson
Communicates the what, why, and how of the lesson.

Standard/Objective
"The what"
Linked to the standards, an objective states specifically what students will know and be able to do.
- Stated in student-friendly language
- Posted, articulated, and referred to during the lesson

Purpose/Big Idea
"The why"
The purpose identifies why the learning is important.
- Connects to central big idea/essential question
- Provides reason for activity

Agenda
"The how"
An agenda provides a step by step process for achieving the objective.
- Posted, articulated, and referred to during the lesson

Learning Experiences
Implements planned instruction that promotes achievement of the lesson objective for all students.

- Activate students' prior knowledge
- Present information
- Use explanatory devices
- Set criteria for success
- Facilitate student engagement
- Check for understanding
- Differentiate according to student needs
- Monitor progress toward mastery of objective

Closure
Require students to internalize their learning.

- Help students to summarize learning
- Promote metacognition
- Connect learning to broader understanding

Self-Reflection
Data Analysis

Updated: 8/11/09
Whole School Improvement Plan
2010-2011 Synopsis

FOCUS AREA: STUDENT ACHIEVEMENT

Goal One
*Increase ELA proficiency.*
new writing program, district assessment plan, MS-HS articulation, data teams, targeted subgroups, school-wide writing, Network tutoring

Goal Two
*Increase math proficiency.*
data teams, district assessment plan, course pre-assessments, common unit assessments, formative assessments, targeted skill development, Network tutoring

Goal Three
*Improve the graduation rate.*
data teams, DESE reporting, course failure rates, MCAS science tutoring, 2010 SPED cohort

FOCUS AREA: PROFESSIONAL LEARNING COMMUNITIES

Goal Four
*Increase ELL-trained staff.*
professional development, formative assessment

Goal Five
*Develop implementation plan for school-wide reform in 2011-2012.*
reform plan, class schedule, house model

FOCUS AREA: SCHOOL CULTURE/CLIMATE

Expectation One
*Collaboration to ensure that all students have writing assignments completed each week with an accountability system.*

Expectation Two
*Frequent and direct Leadership Team supervision on all AYP instructional issues in the WSIP.*

Expectation Three
*Establishment of a Student Activities Office to improve student access and participation as well as consistency among staff advisors.*

Expectation Four
*Achievement of CTE accreditation and program development goals for auto, engineering, and information services.*

Expectation Five
*Participation in AP by Hispanic and African American students will increase to 5% by September, 2012.*

FOCUS AREA: PUBLIC ENGAGEMENT

Expectation Six
*Reporting to parents their students’ progress in achievement of academic student expectations.*

Expectation Seven
*Improvement of parental involvement and communication.*
### Course Offered

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<td>143</td>
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<td>138</td>
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<td>12</td>
<td>263</td>
<td>18</td>
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### Diagrams

#### Sections Offered

- 2005-2006: 8
- 2006-2007: 8
- 2007-2008: 9
- 2008-2009: 12
- 2009-2010: 18
- 2010-2011:

#### Enrollment in Sections

- 2005-2006: 143
- 2006-2007: 138
- 2007-2008: 121
- 2008-2009: 153
- 2009-2010: 263
- 2010-2011: 408
## Honors Diploma Requirement Worksheet

### Name:

<table>
<thead>
<tr>
<th>English</th>
<th>Science</th>
<th>Social Studies</th>
<th>Math</th>
<th>For. Lang.</th>
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<td>I H</td>
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<td>WH II H</td>
<td>Geom H</td>
<td>I H</td>
</tr>
<tr>
<td>II H</td>
<td>Bio H</td>
<td>US Hist I H or Wld Hist AP</td>
<td>Alg II H</td>
<td>II H</td>
</tr>
<tr>
<td>III H or AP</td>
<td>Cel/Mol H</td>
<td>US Hist II H or AP</td>
<td>PCal H</td>
<td>III H</td>
</tr>
<tr>
<td>IV H or AP</td>
<td>Phys AP</td>
<td>1 of following</td>
<td>Calc AP</td>
<td>IV H</td>
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<tr>
<td></td>
<td>Bio AP</td>
<td></td>
<td>or Stats AP</td>
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</table>

### GPA

- Fresh: ______  ______
- Soph: ______  ______
- Junior: ______  ______
- Senior: ______  ______

### AP courses

- 1
- 2
- 3
- 4

### AP scores

**Test** (2 junior year)  
Score (3)

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
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<tr>
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</table>

### SAT scores (1850)

- M: ______
- V: ______
- W: ______

### SAT Subject scores

**Test** (three)  
Score (600)

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### Final grades < 80

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<td></td>
<td></td>
</tr>
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### Community Service

- 40 hours: ______

### Activities (two per year)

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### Notes:

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### Appendix D: Honors Diploma

**DEVELOPING A COLLEGE-READY CULTURE** 132
Graduates earning an honors diploma

<table>
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<tr>
<th>Graduating Class</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
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<th>2011</th>
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<td>10</td>
<td>18</td>
<td>19</td>
<td>18</td>
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</table>

![Bar chart showing the number of graduates earning an honors diploma for each year from 2006 to 2011. The chart indicates the following numbers for each year:
- 2006: 10
- 2007: 15
- 2008: 10
- 2009: 18
- 2010: 19
- 2011: 18
]
**Academic Course Requirements:**
Freshman applicants should present a history of a competitive grade point average in a comprehensive college preparatory curriculum. All applicants are expected to complete the coursework listed below. Exceptions to the foreign language requirement may be considered for applicants with special circumstances including documented learning disability, students from vocational based-technical school, and/or ESL students.

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<thead>
<tr>
<th>Course</th>
<th>Units/Years</th>
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<tbody>
<tr>
<td>English</td>
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</tr>
<tr>
<td>Mathematics (Algebra I &amp; II, Geometry, or comparable coursework)</td>
<td>3</td>
</tr>
<tr>
<td>Social Studies (including U.S. History)</td>
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</tr>
<tr>
<td>Science (including 2 laboratory courses)</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language (one language)</td>
<td>2</td>
</tr>
<tr>
<td>Electives (from above disciplines or Arts &amp; Humanities, or Computer Science)</td>
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</table>

**SAT I or ACT Test Requirement:**
Applicants who meet the 3.0 GPA requirement do not have to use the sliding scale for admission, but still must submit competitive SAT/ACT scores if they are applying within three years of high school graduation. If an applicant's GPA falls between 2.0-2.99, a sliding scale will apply (see below). IMPORTANT: Meeting minimum GPA and SAT requirements or the sliding scale standards does not guarantee admission.

<table>
<thead>
<tr>
<th>GPA</th>
<th>SAT I</th>
<th>ACT</th>
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<tbody>
<tr>
<td>2.51-2.99</td>
<td>920</td>
<td>19</td>
</tr>
<tr>
<td>2.41-2.50</td>
<td>960</td>
<td>20</td>
</tr>
<tr>
<td>2.31-2.40</td>
<td>1000</td>
<td>21</td>
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<td>2.21-2.30</td>
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<td>2.11-2.20</td>
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<td>2.00-2.10</td>
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</table>
### Observer: ____________________________  Date: ____________________

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<th>Department</th>
<th>Rooms</th>
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#### Evidence

<table>
<thead>
<tr>
<th>Objective</th>
<th>Agenda</th>
<th>Student Work</th>
<th>Student Interview</th>
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#### Lesson Component

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<th>Opening</th>
<th>Learning Experiences</th>
<th>Closing</th>
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</table>

#### Type of Activity

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<th>Brainstorming</th>
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<th>Open Response</th>
<th>Composition</th>
<th>Writing Instruction</th>
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#### Type of Writing

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<th>Reflection</th>
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#### Collins Type

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<th>IV</th>
<th>V</th>
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#### Rigor

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<th>Knowledge</th>
<th>Comprehension</th>
<th>Application</th>
<th>Analysis</th>
<th>Synthesis</th>
<th>Evaluation</th>
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Notes:
### Appendix H: Post-Graduation Plans

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<th>2008</th>
<th>2009</th>
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<td>78</td>
<td>81</td>
<td>78</td>
<td>84</td>
<td>84**</td>
</tr>
</tbody>
</table>

* It is not known why this percentage is so high. It should be noted that in this same 2010 graduating class, there is no record of graduates going to work.

** As a result of the high "unknown" percentage, it could be assumed the percentage of students continuing on to college, could in fact be even higher.