

ABSTRACT

CAROLAN, NANCY JEAN. Student Perceptions of the Senior Project Graduation Requirement. (Under the direction of Dr. Bonnie C. Fusarelli.)

The purpose of this research was to understand what high school seniors perceive as essential for the senior project experience to be a worthwhile graduation requirement. The qualitative tradition of phenomenology was used to guide this study. Interviews were conducted with ten high school seniors who had completed a senior project. The interview data were supplemented by analysis of each student's personal documents related to the senior project.

The study examines what the students perceive as essential for making the senior project experience worthwhile. It looks at what is difficult and/or easy about the project and investigates what the high school seniors believe the graduation project does or does not do for students. The study affirms the benefits of project-based learning, while stressing the importance for policy and practice to include a combination of factors for successful senior project programs.

Findings of this phenomenological study based on student perceptions suggest (1) high school senior project programs should include highly qualified English teachers, mentors, peer assistants, and Graduation Project Committees who have a vested interest in the program; (2) senior project programs should have clear and concise guidelines that provide focus and direction for students to follow; (3) physical and human resources, such as computers, printers, craft supplies, and supplemental classes in writing and public speaking, should be available at the school for students who may need them to

successfully complete the graduation project; and (4) programs should be largely an independent effort that allows students autonomy to make decisions about their projects.

The implications of these findings and suggestions for future studies are discussed.

Student Perceptions of the Senior Project Graduation Requirement

by
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BIOGRAPHY

Nancy Jean Carolan was born in Cumberland, Maryland, to Andrew and Evelyn Wallizer. In 1982, she received her Bachelor of Arts (BA) degree from Meredith College in Raleigh, North Carolina. After receiving her BA, Nancy began her career in education. She taught elementary, middle, and high school students for over 21 years. While she was teaching, she returned to school and in 2003 completed her Master of Education (M Ed) degree from Campbell University in Buies Creek, North Carolina. Prior to enrolling in the doctoral program at North Carolina State University, Nancy began working at her current job as an educational consultant with the North Carolina Department of Public Instruction.

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CHAPTER I

INTRODUCTION

One of the most pressing issues facing educators today is the necessity of adequately preparing students to meet the growing demands of both higher education and the workforce. These arenas require not only mastery of the fundamentals such as mathematics, history, science, reading, and writing but also the ability to analyze, integrate, synthesize, and present materials to diverse audiences. Over the past few decades, there has been growing concern that high schools have not kept pace with economic and social change and that they fail to adequately prepare all students for college or the workplace. In seeking solutions to this problem, a number of states are promoting the idea of a performance assessment or senior project that integrates schoolwork and real-world work. Education leaders believe that strengthening traditional high school courses is not enough to connect students to the world of work or higher education and see a need to associate the academic and the vocational disciplines at the secondary level to extend students' knowledge and skills in both areas (Hood, 2004). Therefore, the senior project is a practice gaining national attention in schools throughout the United States, with some schools requiring completion of the assessment as a graduation requirement.

Effective with the class entering the ninth grade for the first time in the 2006–2007 school year and beyond North Carolina seniors will be required to complete a senior project in order to receive a diploma (*New High School Exit Standards*, n.d.). The North

Carolina senior project is a performance-based component that is developed, monitored, and scored locally using state-adopted rubrics. It is designed to be a culminating assessment for 12th graders that determines what they know and what they are able to do as they prepare to graduate from high school. The project consists of seniors writing research papers on approved topics of their choice, developing related products and portfolios related to their research, and delivering presentations about their work before a review panel of judges composed of school staff and community members. At every step of the way, students are to be provided with program guidelines and support. The senior project is intended to have a strong mentoring component; teachers and community members serve in this capacity. Although students are assessed on every component of the project, they also have numerous opportunities to critique their own work prior to formal evaluations.

The main intent for implementing the senior project in North Carolina is to increase the value and credibility of a high school diploma, which indicates its holder has the knowledge and skills needed to do well in a job, college, or other aspects of life (WestEd, 2003). The senior project, which students must pass in order to graduate, is part of the state's accountability system and is above and beyond the federal requirements of the *No Child Left Behind Act of 2001* (NCLB). The NCLB currently requires states to test high school students at least once in grades 10–12 in reading and mathematics, and beginning in the 2007–08 school year include science assessments at least once at grades 10–12 (Wenning, Herdman, Smith, McMahon, & Washington, 2003). The requirements

for high school graduation are not set by the U.S. Department of Education. Instead, graduation requirements are set either through state regulations or by local districts in concert with general state guidelines.

A report by the National Commission on the High School Senior Year (2001) states that the “primary goal of high schools should be graduating students who are ready (and eager) to learn more, capable of thinking critically, and comfortable with the ambiguities of the problem-solving process” (p. 9). Furthermore, the Commission notes that the senior year should “broaden experiences to include service or demanding work-based learning or culminate earlier classroom experience in a senior project” (p. 28). The Commission makes references to the positive impact of senior projects, which are recognized as a challenging alternative that “can help connect students to their futures as citizens, employees, employers, and lifelong learners” (p. 32). The value of the model is that it requires “all seniors to showcase and demonstrate their capabilities for research, creative thinking, rigorous analysis, and clear written and oral communication” (p. 33).

Senior capstone experiences can serve multiple purposes. When senior project programs are properly designed (Hood, 2004), participating students acquire new work-related and interpersonal skills—especially planning, research, writing, speaking, and time management. Many students develop more focused career plans—their senior projects allow them to confirm or reject tentative career paths—and some are offered scholarships or jobs. Graduation from a high school that requires a senior project may also positively impact a student’s chances of being accepted to the more selective

institutions of higher education.

Many teachers, administrators, parents, and students agree that project-based, hands-on learning engages all students, from special education to gifted, in a way that traditional pedagogy cannot. When students are given the latitude to pursue topics that interest them by doing what scientists, special-interest groups, or business people do to solve problems, they often go far beyond the minimum effort (Curtis, 2002). They make connections among math, social studies, literature, and science to find answers to open-ended questions. They also retain what they have learned, are able to apply their learning to real-world problems, are absent less often, and have fewer discipline problems (Wolk, 2000). In short, students get excited about learning, and learning becomes relevant and useful as students establish connections to life outside of school.

For students, norm-referenced tests usually measure only a limited part of a subject area, do not cover a broad range of abilities, rely too heavily on memorized facts and procedures, and fail to emphasize thinking and the application of knowledge. Schools using norm-referenced tests often leave behind the enriched curriculum and student activities that foster student growth in ways other than the acquisition of declarative knowledge. Therefore, students tend to adopt a surface approach to learning and become preoccupied with memorizing and reproducing information and applying facts and procedures (Newell, 2002).

If educational institutions intend to equip graduates with critical-thinking and lifelong- learning capabilities, then current assessment practices must promote and

reward the achievement of desired learning outcomes. Assessment methods should be conditioned by our goals for student learning. Assessment should be less as a means of getting a single score for comparative purposes and more as a means of providing opportunities for students to demonstrate how much they understand (Hargreaves, 1997).

Statement of the Problem

Project-based assessment, such as the senior project, is a promising complement to conventional norm-referenced tests and a key component of school-to-work or school-to-higher- education opportunities. However, project-based learning can present challenges as students plan and develop individual projects, use unique resources, work independently outside of the classroom, and collaborate with others. Communication, documentation, and time management skills are critical, particularly as projects are completed and evaluated. Therefore, the senior project's promise can be fulfilled only if the experience is of high quality.

Willis (1993) says the aim of phenomenological research is “the tracking down and categorizing of qualitative differences in the way people perceive and understand their reality” (p. 386). The purpose of this phenomenological research study was to understand what seniors perceive as essential for the senior project experience to be a worthwhile graduation requirement. This study searched for the essences of the senior project experiences of the student informants. Five central questions guided this study:

- From the student perspective, what is the essential structure of worthwhile senior project programs?

- What is difficult or easy about the senior project?
- What does the senior project do for students?
- What does the senior project not do for students?
- What, if anything, do students learn from doing the senior project?

Purpose of the Study

The purpose of this phenomenological study was to understand what seniors perceive as essential for the senior project experience to be a worthwhile graduation requirement. The literature shows (e.g., Dunn, 2001; Hood, 2004; Walter-Thomas & Brownell, 2001; Wolk, 2000) that students benefit more from project-based learning than from traditional classroom assessments. Still, in many school districts the notion of teaching through project development is hazy, if not foreign. This study may provide teachers and educators with students' suggestions for ways to plan and implement the senior project requirement in schools and may provide information on the experiences and conditions students perceive as necessary in order to help them successfully complete the senior project.

Significance of the Study

There has been growing concern that high schools are failing to adequately prepare all students for college or the workplace. In seeking solutions to this problem, the North Carolina State Board of Education is mandating as a graduation requirement the completion of a performance assessment or senior project that integrates schoolwork and real-world work. Education leaders believe that strengthening traditional high school

courses is not enough to connect students to the world of work or higher education and see a need to associate the academic and the vocational disciplines at the secondary level to extend students' knowledge and skills in both areas (Hood, 2004).

Beginning with the 2006–07 school year, North Carolina high schools are required to develop a worthwhile senior project program that is designed to provide significant support to students, school staff, parents, community members, and other stakeholders involved in the senior project. Students enrolled for the first time in the ninth grade in the 2006–07 school year are the first graduating class required by the state to complete a senior project in order to receive a high school diploma.

Few empirical investigations into planning and implementation strategies for senior projects have been conducted (Bond, 1995; Hood, 1998; Linn, Baker, & Dunbar, 1991; Shaunessy, 2004; Solomon, 2003) despite the growing body of theoretical work illuminating the importance of performance assessments (Bradford, 2005; Cavanagh, 2004; Curtis, 2002; Dunn, 2001; Hargreaves, 1997; Holland, 2001; Lewis, 2004; Marx & Blumenfeld, 1997; Root & Thorne, 2001; Sipe, 2001). This void in the literature leaves educators with limited information with which to develop strategies to promote worthwhile senior project programs.

This study was not an implementation or an evaluation study. It was a study of student perceptions that may provide educators with a beginning insight into planning and implementation strategies for senior project programs and provide information on the experiences and conditions that students perceive are necessary to successfully complete

the senior project. As specified in the methodology section, the investigation targeted 12th graders enrolled in a North Carolina school that has had the senior project requirement in place for at least four years. Discussions with seniors completing the project were needed in order to determine the effectiveness of the program. The seniors' perceptions of their experiences in the program were very important and were the major part of this study. Their perceptions offer valuable information to teachers, educators, and promoters of performance assessments on ways to plan and implement the senior project in schools. Moreover, the study provides a methodological template for investigating similar phenomena in populations beyond North Carolina schools.

Definition of Terms

There are a variety of terms associated with the implementation of the North Carolina senior project graduation requirement. The following include, but are not limited to, terms, individuals, and groups mentioned in the text that relate to the senior project.

1. **senior/graduation project** – the senior/graduation project is a performance-based exit assessment consisting of a written research report, a major product, a portfolio, and an oral presentation.
2. **mentor** – a mentor is a member of the community or school staff who is knowledgeable in the student's selected area of study and advises the student about research and project choices, monitors and documents the progress of the senior project phases, and provides insight into the student's overall effort and

growth.

3. **portfolio** – a portfolio is a folder containing reflective writings or logs and other forms of student documents demonstrating his or her process and progress.
4. **product** – the product is selected, designed, and developed by the graduating senior and is related to the student’s field of study and/or research topic.
5. **oral presentation** – the oral presentation encapsulates the entire senior project process from the topic selection to project completion and self growth. It is given before a review panel of judges.
6. **review panel of judges** – the senior project review panel of judges uses established criteria and state-endorsed rubrics to evaluate student oral presentations. The panel is composed of faculty, staff, and community members.
7. **service-learning** – service-learning is a method whereby students learn and develop through active participation in thoughtfully organized service that is conducted in and meets the needs of communities—local, state, national, or international.
8. **senior/graduation project advisors** – senior/graduation project advisors are teachers or other faculty members who direct and coordinate individual student senior projects.
9. **senior/graduation project committee** – each school has the flexibility to develop their own senior project program design to meet local needs. The senior/graduation project committee, composed of faculty, staff, parents, and

community representatives, establishes school guidelines for each graduation project component (i.e., research paper, product, portfolio, and oral presentation).

10. **rubrics** – rubrics are the state-endorsed definitions and guidelines for the senior project review panel of judges to use in assessing the student’s research paper, product, and portfolio. Rubrics define work as exemplary, satisfactory, developing/emerging, or resubmission necessary.

Organization of the Study

Chapter II of this study reviews the policy making process of why and how the North Carolina high school exit standards policy was proposed and adopted by the State Board of Education in May 2005. This chapter also contains a review of the literature that first examines consequences that may result from the implementation of more rigorous high school exit standards. The literature review continues with an examination of the use of performance assessments as an alternative to multiple-choice tests. Following this, the literature explores the senior project graduation requirement and then concludes with a discussion of perceptual theory. A description of the research methodology used in this study is presented in Chapter III. Chapter IV presents a detailed analysis of the findings of the study. A discussion of the major findings and their link to related research is presented in Chapter V, as well as the implications of the study for policy and practice are discussed and suggestions for future research are provided.

CHAPTER II

LITERATURE REVIEW

The Policy Making Process

It is an especially complex task to assess how and why some issues rise on governmental agendas while other issues are neglected and why people in and around government pay serious attention to some alternatives at the expense of others. Because the main focus of this study was the senior project graduation requirement, it is important to understand why and how the North Carolina high school exit standards policy was proposed and adopted by the State Board of Education in May 2005. This section of the literature traces the policy making process.

Problem Stream—A Need for Public Schools to Raise Standards

John Kingdon's (2003) multiple streams model is often used to understand the policy making process of how and why some issues rise on the government agenda while other issues are neglected. Kingdon's model consists of three process streams of activity: the problem stream, the policy stream, and the political stream. The streams of process, which develop and operate largely independent of each other, influence the movement of choices and solutions within the agenda-setting process.

The problem stream denotes which conditions are recognized by governmental decision makers as significant social problems. A condition becomes defined as a problem when people in and around government want to change the condition and do something about it. Indicators, focusing events, and feedback may trigger interest in the

problem. With the passage of the *No Child Left Behind Act* and decades of well-publicized reports (e.g., Dunn, 2001; Honawar, 2005; Mazzoni, 1994; Murphy, 2000; Olson, 2004) that indicate high school graduates are not prepared for college and the workforce, members of the North Carolina State Board of Education, the Department of Public Instruction, and other stakeholders recognized the need for more rigorous exit standards.

Marshall and Tucker (1992) note that the average 25-year-old graduate in the United States has the eighth-grade academic skills and the virtually nonexistent vocational skills with which he or she emerged from high school. Current 10th, 11th, and 12th graders in North Carolina public schools are under the “old” graduation requirements that assess their mastery of eighth-grade curricular materials. If these students passed the end-of-grade (EOG) reading comprehension and mathematics tests in eighth grade, they have met the state competency requirement for graduation. If they did not pass the EOG reading comprehension and mathematics tests in eighth grade, then they are required to take the high school competency tests of reading and mathematics (Accountability Services Division, n.d.). These students, beginning in the ninth grade, are given at least one opportunity a year to take the tests to meet the competency requirements and receive their high school diploma. Any students who fail to pass the competency tests by the end of the last school month of the year in which the student's class graduates may receive additional remedial instruction and continue to take the competency tests during regularly scheduled testing until the student reaches age 21.

The findings from a 50-state review of high school graduation requirements released December 2004 by Achieve (a Washington-based group formed by governors and business leaders that advocates strong academic standards) supports the need for states, such as North Carolina, to implement more rigorous graduation requirements. The study identifies that a wide gap exists between graduating students' skills and the challenges of college or the workforce. The report (Honawar, 2005) found that in all 50 states and the District of Columbia, students can earn a high school diploma without acquiring the knowledge and skills needed for higher education and jobs. Only five states—Alabama, Arkansas, Mississippi, South Carolina, and West Virginia—require students to take four years of math. Only six states—Alabama, Arkansas, Kentucky, North Carolina, Texas, and West Virginia—require four years of grade-level English. The report adds that employers find most high school graduates are inadequately prepared to succeed in an increasingly competitive economy. More than 60% of employers reported that recent graduates had poor math skills, while 75% of employers pointed to poor grammar and writing skills.

Similarly, the U.S. Department of Education reports as many as 50% of all students who go to college are insufficiently prepared for the work required and have to take remedial courses, and of that population, well over 25% of the students require remediation in one or more subjects. More than a quarter of the freshmen at four-year colleges and nearly half of those at two-year institutions drop out before entering the second year (Dunn, 2001).

A study conducted by the American Diploma Project (Olson, 2004) recommends that states implement more rigorous high school graduation requirements and tests to reflect the English and math skills that students actually need to succeed in college and in the workplace. To identify what those skills are, the study analyzed employment data and conducted research with more than 300 higher education officials, front-line managers, and K–12 leaders. The individuals came from Indiana, Kentucky, Massachusetts, Nevada, and Texas, five states that partnered with the American Diploma Project to do the research. The resulting set of benchmarks far outweighs what most states, including North Carolina, now require of their high school graduates. The benchmarks in mathematics reflect content from Algebra I and II, Geometry, and data analysis and statistics. The English benchmarks demand strong oral and written communication skills as well as analytical and research skills typically associated with honors and advanced-level courses.

A Policy Window Opens

State policy makers in North Carolina recognized national and local concerns that the quality of public education has slipped and that too many North Carolina students are graduating with substandard academic skills. As a result, a policy window (Kingdon, 2003) opened and a host of policy entrepreneurs in and out of government were ready, willing, and able to seize the moment (Mazzoni, 1994), attach their solutions to the problem, and move the subject up on the agenda and into position for enactment. Kingdon (2003) notes that policy entrepreneurs develop their ideas, expertise, and

proposals well in advance of the time the window opens. Without earlier consideration and “softening up,” (p. 128) policy entrepreneurs cannot take advantage of the window when it opens.

As early as December 2003 (SBE Meeting, 2004), at the State Board of Education Issues Session, the State Board began discussions with advisory boards and committees to promote and support movement toward achieving the imperative to graduate all students prepared for work and post-secondary opportunities (SBE Meeting, 2006). The committees and advisory boards consisted of local superintendents, principals, counselors, teachers, and parents as well as members of the Department of Public Instruction’s Division of Secondary Education, Division of Accountability Services, Division of Instructional Services, School Improvement Division, and Exceptional Children’s Division.

In addition to starting discussion of their proposals, policy entrepreneurs push their ideas in many different forums (Kingdon, 2003). Entrepreneurs attempt to soften up policy communities and larger publics, get them used to new ideas, and build acceptance for their proposals. In July and August 2004 (SBE Meeting, 2004), two of four options related to increasing high school exit standards were presented to the State Board of Education by the Department of Public Instruction’s Division of Accountability Services. The proposals included some combination of end-of-course test results and the use of some performance-based components, such as a senior project, service-based learning, or work-based learning. The State Board asked that different advisory committees be given

an opportunity to react to the various options that were presented, and in August the Board members reviewed a report of the reactions.

Kingdon (2003) notes when opportunities arrive, participants bring their problems to the deliberations, hoping that decision makers will solve them, and also bring their proposals, hoping they will be adopted. At the September Issues Session meeting (SBE Meeting, 2004), the Accountability Services Division proposed one of the options for increasing high school exit standards for State Board discussion and provided a solution for working out the details so that a final recommendation could be voted on by the Board at a subsequent meeting. The proposal required high school students to meet new exit standards that included performance on end-of-course (EOC) tests and a senior project. Five required EOC tests (i.e., Algebra I, Biology, English I, Civics and Economics, and U.S. History) and a senior project (scored and monitored locally using statewide rubrics/standards) would be used in establishing the standards.

Accountability Services gave Board members reports of student performance on the current end-of-course tests that included results for the state as a whole (see Appendix A) as well as disaggregations by gender (see Appendix B) and race/ethnicity (see Appendix C). The reports also showed performance of graduates from the 2003–04 school year (see Appendix D) and how they performed across all five end-of-course tests. A report of the performance of students with disabilities by race/ethnicity (see Appendix E) was also included. The Board reviewed these data in preparation for working out the final details of the policy.

The Policy Stream

In October 2004 (SBE Meeting, 2005), the State Board of Education approved using five end-of-course assessments (i.e., Algebra I, English I, Civics and Economics, Biology, and U.S. History) and a graduation project as the framework for new high school exit standards. The proposal was now in the policy stream where the policy is generated, debated, redrafted, and accepted for serious consideration (Kingdon, 2003). Goals and decisions emerge from bargaining and negotiating (Bolman & Deal, 2003) within the policy stream. Much of the process takes place in communities of specialists both through and outside of government (Kingdon, 2003).

Policy entrepreneurs must often reframe issues and construct arguments in order to maximize the chances that they can sell their ideas to others (Mintrom, 1997). These individuals are assertive, tenacious, and skillful on behalf of the issue. Their activities include calling attention to shortcomings of competitive issues, generating a new vision for change, designing and publicizing alternatives (along with supportive data and arguments), cultivating coalition allies and financial support, pressing for the adoption of their proposals by political leaders, and lobbying for reform initiatives in the legislature and other decision arenas. Collectively, their activities are so diverse and consequential that individual policy entrepreneurs must be listed as being among the principal agents in policy change (Mazzoni, 1993).

The policy actors from the North Carolina Department of Public Instruction Division of Accountability Services and the Instructional Services Division formed a

policy network (Wirt & Kirst, 2005) or coalition seeking to strengthen their power and legitimacy (Cibulka, 2001). The coalition members played a critical role in translating technical and academic data into “plain English” for other bureaucrats and politicians (Wirt & Kirst, 2005). This strengthened the policy network’s numbers and their ability to claim that they were speaking on behalf of a broad audience and national interest. The exit standard proposal became more visible and dominant when everyone shared similar values, beliefs, and culture (Bolman & Deal, 2003).

According to Wirt and Kirst (2005), the coalition view of state decision making is that any decision is possible if enough support for it exists among interest groups. In January 2005 (North Carolina Department of Public Instruction, 2005), the coalition members hosted six public information sessions around the state and presented several sessions for the media on the framework and proposals (see Appendix F) for implementing the new high school exit standards approved by the State Board.

The coalition’s ability to appeal to a broad audience on the basis of their ideas was more likely to be successful when they had access to the public and the media (Cibulka, 2001). Public opinion and the news media often play an important role in political agenda setting (Wirt & Kirst, 2005). Ideas can gain ground rapidly if initial events and important influences surface in the mainstream and become issues of public debate or conflict. Consensus is built largely through the processes of persuasion and diffusion (Kingdon, 2003). These specialists in the Department of Public Instruction took advantage of the prominence of high school reform on the agenda to put forward their

preferred solutions and maneuver them into enactments (Chance, 1986; Holderness, 1990; Layton, 1986).

Besides State Board and Department of Public Instruction insiders, there were individuals outside these agencies infusing their policy ideas and entrepreneurial energy (Mazzoni, 1994). These interest groups, whether formally organized or not, attempted to influence public policy and gain support for their position (Gray, Hanson, & Jacob, 1999). In January 2005, parents, principals, teachers, superintendents, central office personnel, citizen groups, and other stakeholders provided their input at regional information sessions held around the state (North Carolina Department of Public Instruction, 2005). In addition, these interest groups completed an online survey posted on the Department of Public Instruction's Web site that recorded their suggestions and concerns regarding the framework and the proposals for implementing the new high school exit standards.

National Mood and Political Stream

A large number of proposals are considered through the selection process; however, the policy stream produces a short list of proposals (Kingdon, 2003). If a proposal survives scrutiny according to certain criteria (e.g., technical feasibility, value acceptability within the policy community, tolerable cost, anticipated public acquiescence, and a reasonable chance for receptivity among elected decision makers), it diffuses within the policy community.

The Department of Public Instruction Division of Accountability Services

summarized the feedback from the survey and the information sessions. The Division prepared a report of the results and presented the report to the State Board in February 2005 (North Carolina Department of Public Instruction, 2005). In March and April, the Board discussed the full summary report from the survey and information sessions.

Kingdon (2003) notes that people in and around government sense a “national mood” (p. 146), the notion of which is that a large number of people out in the country are thinking along certain common lines. This mood or climate has important impacts on policy agendas and policy outcomes. Once an issue seems to be moving, everyone with an interest in the subject climbs aboard the bandwagon.

An issue has the greatest chance of becoming policy when a policy window is open and the separate streams of problems, policies, and politics converge. The State Board recognized that the quality of public education has slipped and that too many North Carolina students are graduating with substandard academic skills. After reviewing the summary report and recognizing that the whole educational community is moving in the direction to increase exit standards for high school students, the State Board of Education reached its decision in May 2005 and voted unanimously to approve the new high school exit standards effective for students entering the ninth grade for the first time in the 2006–07 school year and beyond (North Carolina Department of Public Instruction, 2005).

State Board of Education policy HSP-N-004 (16 NCAC 6D .0503) (North Carolina State Board of Education Policy Manual, 2006) states that students following

the career preparation, college technical preparation, or college/university preparation courses of study must meet the following exit standards:

- (A) “successfully complete a senior project that is developed, monitored, and scored within the LEA using state-adopted rubrics; and
- (B) score at proficiency level III or above on the end-of-course assessment for English I, U.S. History, Biology, Civics and Economics, and Algebra I. A student who does not score at proficiency level III or above on the end-of-course assessment for any of these courses but who passes the course shall be offered the opportunity to retake the assessment no later than three weeks from the receipt of assessment results. If the student does not score at or above proficiency level III on the retest, school officials shall apply the review process described in Rule .0504 of this Section to provide focused intervention, a second retest opportunity, and a review of the student’s documentation to determine whether the student has met the exit standard for the course. The principal shall make the final decision as to whether the student has met the exit standard.”

The Impact of Higher Exit Standards

The North Carolina high school exit standards outlined in State Board of Education policy HSP-N-004 (16 NCAC 6D .0503) (North Carolina State Board of Education Policy Manual, 2006) are effective for students entering the ninth grade for the first time in the 2006–07 school year and beyond. Whether or not this new policy will

have serious positive or negative consequences for student learning is still an open empirical question. This section of the literature examines the consequences that may result from the implementation of more rigorous high school exit standards.

Exit Exams

According to a report issued in August 2004 by the Center on Education Policy, about 70% of U.S. public high school students will be required to take state exit exams as graduation requirements by 2009, and that proportion will increase as more states phase in such exams (Fleming, 2004). Like North Carolina, the main intent for states implementing exit exams is to increase the value and credibility of a high school diploma, which indicates its holder has the knowledge and skills needed to do well in a job, college, or other aspects of life (WestEd, 2003).

The report, *State High School Exit Exams: A Maturing Reform* (Fleming, 2004), however, concludes that most states' tests are not useful for evaluating anything beyond high school achievement, such as readiness for college or the workforce. Of the 25 states that require exit exams now or plan to do so by 2009, the report found that Georgia is the only one that has an exam designed to ensure that students are ready for college or work. The exams are generally not of a high enough level to signal students are prepared for college.

This may hold true for the five North Carolina end-of-course assessments now required for graduation. The Public Schools of North Carolina Accountability Services Division (n.d) describes the end-of-course tests as criterion-referenced tests that

determine a student's knowledge of subject-related concepts as specified in the North Carolina Standard Course of Study. According to Bond (1996), information from criterion-referenced tests should be used as one piece of information to determine how well the student is learning the desired curriculum and how well the school is teaching the curriculum. The North Carolina end-of-course tests report how well students master the material in a particular subject area relative to a pre-determined performance level (i.e., at Level III, with one standard error of measurement, or above) on a specified set of educational goals or outcomes included in the state curriculum (North Carolina State Board of Education Policy Manual, 2006). The end-of course tests are not designed to ensure that students are ready for college or work.

Teaching to the Test

Many critics of the North Carolina exit standard policy suggest that the current testing movement promotes classroom instruction that focuses on lower cognitive skills and students merely memorizing information and brings about curriculum development and standardized assessment contrary to good teaching (Nichols, 2003). In a 1999 study (Ysseldyke, Nelson, Christenson, Johnson, Dennison, Triezenberg, Sharpe, & Hawes, 2004), North Carolina elementary teachers were asked to describe how the ABCs accountability program¹ had changed their instruction. Nearly two-thirds of the teachers indicated that they spent more time on reading and math, whereas more than 28%

¹ The ABCs accountability program is comprised of a school-based management and accountability program that includes end-of-grade testing in reading and mathematics for grades three through eight, a grade 10 comprehensive test of reading and math, public reports, and sanctions and rewards for failing and improving schools based on their annual yearly progress.

indicated that students spent more than 60% of instructional time practicing for tests. The amount of time teachers spent on the basics seems to demonstrate that assessment does indeed drive instruction: (a) 401 minutes for reading, (b) 292 minutes for mathematics, (c) 198 minutes for writing, (d) 102 minutes for social studies, (e) 99 minutes for science, (f) 61 minutes for physical education, (g) 46 minutes for music, (h) 44 minutes for art, and (i) 42 minutes for health education.

Shepard (2002) notes that teaching in tested subjects, such as reading, mathematics, and language arts, is redesigned to closely resemble test formats. Teachers have stopped giving essay tests as part of regular instruction so that classroom quizzes more closely parallel the format of standardized tests given at the end of the year. Teachers have given up reading real books, writing, and long-term projects and focus instead on word recognition, recognizing spelling errors, language usage, punctuation, and mathematics operations. Test preparation dominates instruction from the beginning of the school year up until test time. Only after the high-stakes test is administered do teachers engage the “real curriculum.”

Rothman (1996) found that these forms of curriculum distortion engendered by efforts to improve test scores are strongly associated with socio-economic level. The poorer the school and school district, the more time is devoted to instruction that resembles the test. Teaching to the test has distorted the information that tests provide about what students know and the way teachers teach.

Some researchers emphatically believe that students are failing to develop

higher-order thinking skills as a result of drill-and-practice teaching methods that hope to improve performance on high-stakes exams. Ysseldyke et al. (2004) examined the relationship between state-mandated testing and teacher classroom instruction and found that although there were other factors that could influence teachers' instructional practices, state-mandated testing does matter and influences what teachers say and do. With high-stakes testing, teachers, in essence, begin to serve and focus on a limited curriculum because of state-imposed tests. They focus on using practice guides and released items derived from their state department of education's test banks.

After reviewing teacher practices in Maine and Maryland, Firestone and Mayrowetz (2000) found that many teachers began teaching to the test by using items like those on the tests in their teaching. One teacher did a strict simulation of the Maryland School Performance Assessment Program (MSPAP) math test with similar problems that he created and with testing conditions with the same amount of time as given during the actual administration of the MSPAP. He also spent time coaching students on how to determine what an appropriate answer was in the testing context (Ysseldyke et al., 2004).

Heubert (2003) notes that students who do well on specific test questions that have been emphasized in their class may not have mastered the full curriculum. These assessment methods force students into surface learning, where facts are quickly acquired to meet examination pressures and are just as quickly forgotten (Hargreaves, 1997; Willis, 1993).

Lower Graduation Rates and College Entrance Exam Scores

Critics of the high school exit standards contend that the policy will reduce rates of high school completion, particularly for racial and ethnic minorities and for economically disadvantaged students (Warren, Jenkins, & Kelick, 2006). A study by Marchant and Paulson (2005) found that states that already have high school exit exams in place have much lower graduation rates and college entrance exam scores than states that do not have them. The study zeroed in on 18 states that require high school students to pass an exam in order to graduate. When compared with students in 33 states without such requirements, the students in the exit exam states tended to have both lower scores on the SAT admissions exam and lower graduation rates (Viadero, 2005). The study found that the average combined verbal and math score on the SAT in states with exit exams was 34 points lower than the average score in states without exit exams.

Bushweller (2004) notes a possible explanation for the findings. Most exit exams are achievement tests covering specific standards or content knowledge (e.g., the North Carolina end-of-course Algebra I, English I, U.S. History, Biology, and Civics and Economics assessments are achievement tests covering specific content knowledge), while the college entrance exam is a test of reasoning. In focusing on exit exam content knowledge, Bushweller (2004) speculates, educators may be neglecting more innovative teaching practices that improve reasoning and critical thinking skills.

Marchant and Paulson (2005) focused on the 2001 SAT scores and 2002 graduation rates as a way to examine the tests' impact on both ends of the high school

population: students who were struggling to stay in school as well as college-bound teenagers. The researchers factored in data on family incomes, racial characteristics, parents' educational levels, and high school grades in order to compare students from similar backgrounds across states. To calculate graduation rates, they compared fall 1999 freshmen enrollments with the numbers of graduating seniors in 2002. The 64% graduation rate they found for exit exam states was nine percentage points lower than the rate for other states. Among the findings for SAT scores, the report shows that high-achieving Caucasian students in exit exam states lagged behind their peers in nonexam states by 13 to 16 percentile points. Those differences decreased somewhat when the researchers compared scores for individual students across states rather than clumping together an entire state's scores.

Warren et al. (2006) notes, however, that many of these states that already have exit exams in place tend to be located in the South and have long been among the most disadvantaged in the nation; many have traditionally fared poorly on national assessments of achievement, and many contain high proportions of racial or ethnic minorities, urban residents, or both. Based on these factors, it is not surprising that states that require exit exams have lower high school completion rates than states that do not require them.

Other researchers (Amrein & Berliner, 2002; Greene & Winters, 2004; Warren et al., 2006) have used data to investigate the association between state high school exit exam policies and high school completion. Their analyses are based on annual state-reported data on enrollments and completion counts. Using this information, these

researchers have estimated state-level high school graduation rates by dividing the number of completers in a particular year by the number of ninth graders three years earlier (Greene & Winters, 2004) or by dividing the number of completers in a particular year with the total enrollment in secondary schools (Amrein & Berliner, 2002). After combining these outcome measures with information about which states had mandatory high school exit exams, these researchers reached conflicting results. Amrein and Berliner (2002) conclude that high school graduation exams increase dropout rates, decrease high school graduation rates, and increase the rates by which students enroll in General Education Development (GED) programs. Greene and Winters (2004), however, contend that students in high accountability states in the 1990s did not experience lower completion rates.

High Failure Rates

Research shows that those students who are most immediately affected by exit exams are those who do not pass the exam on the first try and must retake the test. Chudowsky, Kober, Gayler, and Hamilton (2002) found in many states, that this category includes significant numbers of students, and within this number is a disproportionately large share of minority students. In all states that report passing rates by student subgroups, African American and Hispanic students are much less likely to pass on the initial try than Caucasian and Asian American students. Passing rates are also lower for poor students, students with disabilities, and English language learners. The percentages of students who do not pass exit exams on their first attempt range from 9% to 69% in

mathematics and from 5% to 53% in English/language arts depending on the state.

Research also shows a significant relationship exists between poor achievement in students' beginning educational careers and their later poor achievement. Nichols (2003) found that students who struggled on standardized exams and failed to meet state minimum requirements in third grade were potentially the same students who failed to meet graduation requirements seven years later in tenth grade.

A similar relationship was found when yearly grade point averages were explored. Students who maintained grade averages at or below C early in their schooling continued to struggle academically. In most cases, grade point averages continued to decline, and the same students eventually failed to pass state proficiencies in math and English.

The study found similar information based on student economic status defined by qualification for free or reduced price lunch. For each graduation class and for each test of proficiency in English/language arts and mathematics, lower income students (those qualifying for lunch supplements) had a greater failure rate (in some cases twice as great) than higher income students (Nicholas, 2003).

The tracks that students are placed into once they fail a high-stakes exam are also a concern for some researchers. Ysseldyke et al. (2004) defines tracking as forms of placement, whereby individual students are assigned, usually on the basis of perceived achievement or skill level, to separate schools or programs, classes within grade levels, groups within classes (at the elementary level), and courses within subject areas (at the secondary level). Clear evidence from research (Ireson & Hallam, 1999) shows that low-

ability/remediation groups tend to include disproportionate numbers of pupils of low socio-economic status and ethnic minorities, and that low-ability grouping has an adverse impact on pupils' self-esteem, self-concept, and attitudes toward school and schoolwork. Ireson and Hallam (1999) suggest that for low track students the self-concept becomes more and more negative as years go by, and students tend to be critical of their own abilities. This has clear implications for progression to higher education and subsequent employment prospects.

Increased Absences

Haslinger, Kelly, and O'Lare (1996) looked at average yearly absences over a span of seven years for students failing to meet English/language arts state proficiencies. The research shows that school absences became more frequent through the years for students who struggle academically. By the time failing students became juniors or seniors, they were often absent twice as frequently as they were in previous school years. In addition, when the yearly absences of failing students were compared with those of students who passed proficiency tests during their sophomore year, failing students averaged nearly twice as many yearly absences. Similar information was reported based on ethnicity and economic status for those students failing to meet state proficiencies in English/language arts and mathematics. For each year that data were collected, lower income students accumulated more school absence days than higher income students, for both majority and minority students.

Test Anxiety

Prominent researchers in the area view test anxiety as a relatively stable personality characteristic that prompts an individual to react to threatening situations with sometimes debilitating psychological, physiological, and behavioral responses (Hancock, 2001) that can result in poor performance, scholastic underachievement, psychological distress, and ill health (Jones & Martin-Cain, 2002). Students from all levels of academic achievement and intellectual abilities can suffer from test anxiety (Lufi, Okasha, & Cohen, 2004). Jones and Martin-Cain (2002) found that up to 25% of the student population does more poorly on tests than they are capable of due to test anxiety. Test anxiety occurs in varying degrees and can be exhibited differently by individuals (McDonald, 2001). For example, one study reported that students with disabilities taking high-stakes exams “ate holes through their shirts out of anxiety, while others twirled in their chairs, cried aloud, or repeatedly whispered, ‘I can’t do any of this’” (Ysseldyke et al., 2004, p. 89).

The negative influence of test anxiety on school performance is found at a young age. For example, Sarason and Sarason (1990) report that highly test-anxious children are two years behind in basic reading and mathematics skills by the end of elementary school, probably because of the test anxiety they experience. A study by McDonald (2001) suggests that the pressures from parents and teachers on children to excel in testing situations may be the origin of the test anxiety mindset. Pressure is exacerbated by the public’s favorable or adverse evaluation of schools and teacher effectiveness based on

students' scores on statewide and national examinations. The result is a heightened anxiety for students to perform well on high-stakes tests throughout school systems (Lufi et al., 2004). Supon (2004) notes that anxiety severely compromises test performance for students and that it may adversely affect the ability of testing to measure students' comprehension of course material.

Increase in the Dropout Rate

The difficulty of high-stakes exams may lead students to drop out of high school or to pursue a GED certificate to avoid taking the exams. According to a study conducted by economists from Cornell University and the University of Michigan (Fleming, 2004), the average increase in more rigorous high school graduation requirements has resulted in a 3% to 7% jump in the high school dropout rate. This translates from 26,000 to 65,000 more high school dropouts a year nationwide. The results of the study suggest that state-mandated minimum course requirements cause students to drop out of high school. In all cases, the study found that higher course graduation requirements are associated with higher attrition rates, higher dropout rates, and higher individual probabilities of dropping out (Schroeder, 2000). Previous research has suggested that certain students, including members of minority groups, English-language learners, and those in financial need, are disproportionately likely to experience such negative effects (Fleming, 2004).

A strong predictor of whether students will drop out of school is whether they have been retained in grade. Heubert (2003) notes that high-stakes testing has led to higher rates of retention in grade especially for black students, Latinos, English-language

learners, students with disabilities, and low socio-economic status students. Those retained in grade even once are more likely to drop out later than are students not retained, and the effects are even greater for students retained more than once.

Jobs for the Future, a Boston-based education advocacy group (Steinberg & Almeida, 2004), reports that for every 100 students who enter 9th grade, only 67 graduate from high school, just 38 go on to college, and only 18 of the original 100 get an associate's or bachelor's degree. The report says that high school dropouts face an extraordinarily bleak future in today's economy, which demands an increasingly educated and highly trained workforce. Students who do not graduate from high school usually experience lower rates of employment, lower incomes, and higher rates of incarceration (Lanford & Cary, 2000). Young people who drop out, especially minority and low income youth, face a greater chance of going to prison than of going to college (Steinberg & Almeida, 2004).

Performance Assessments

Although there are several negative aspects associated with high-stakes tests, the role of assessment as a tool in the learning process cannot be undervalued. Assessment is vitally important to students and exerts a major influence on their approach to learning. This section of the literature examines the use of performance assessments as an alternative to multiple-choice tests.

Assessment Benefits

Advocates of measurement-driven instruction (Popham, Cruse, Rankin, Sandifer,

& Williams, 1985) have long seen benefits in establishing and measuring learning objectives and note several benefits to using assessment to motivate improvement:

1. “Assessments can communicate meaningful standards to which school systems, schools, teachers, and students can aspire.
2. These standards can provide focus and direction for teaching and learning.
3. Results from the assessment support important insights on the nature, strengths, and weaknesses of student progress relative to the standards.
4. Educators and students will use this feedback to understand and direct their attention to improving relevant aspects of student learning.
5. Coupled with appropriate incentives and/or sanctions—external or self-motivated and directed—assessment will motivate students to learn better, teachers to teach better, and schools to be more educationally effective” (p. 197).

Hargreaves (1997) highlights eight clusters of abilities that students should develop across programs of study within a school: (a) thinking critically and making judgments; (b) solving problems and developing plans; (c) performing procedures and demonstrating techniques; (d) managing and developing oneself; (e) accessing and managing information; (f) demonstrating knowledge and understanding; (g) designing, creating, and performing; and (h) communicating. Learning, however, is not only associated with the increase in knowledge and its subsequent recall but rather is related to the understanding of fundamental principles and concepts that can be applied to both

familiar and unfamiliar situations in the real world. Hargreaves (1997) argues if schools are interested in producing graduates with these attributes, then schools must consider how this learning can be directed by appropriate assessment strategies toward achieving these outcomes.

Project-Based Learning

The persuasive arguments that traditional testing instruments have failed to assess academic skills and knowledge in real-life situations have caused many stakeholders—educators, parents, business people, state and federal legislators, and other politicians among them—to favor performance-based assessments. Hood (1998) notes that the purported ability of these assessments to provide a more comprehensive view of what students can actually do in the real world appears to give them an edge over the traditional tests. Messick (1995) asserts performance-based assessments are less stigmatizing, more adaptable to individual student needs, less narrow and more faithful to the richness and complexity of real-world problem solving, more instructionally relevant, more useful for public and parental reporting, and more reflective of the actual quality of student understanding.

Solomon (2003) concurs that a more appropriate assessment strategy than current exit exams may be project-based learning assessments. In project-based learning, students work to solve challenging problems that are authentic, curriculum based, and often interdisciplinary. Learners decide how to approach a problem and what activities to pursue. They gather information from a variety of sources and synthesize, analyze, and

derive knowledge from it. The learning is inherently valuable because it is connected to something real and involves skills such as collaboration and reflection. At the end, students demonstrate their newly acquired knowledge and are judged by how much they have learned and how well they communicate it. Throughout this process, the teacher's role is to guide and advise rather than to direct and manage student work.

Preuss (2002) notes six essential characteristics of project-based activities:

(a) Authenticity: A project should have meaning for students and have value outside of the school's walls; (b) Academic Rigor: A project should be challenging and cause students to look at things from a different perspective or lead them to other disciplines of study; (c) Applied Learning: The context of a project should be semistructured to connect life outside of school. It should demand students to use competencies (social and technical) expected of them in the workplace; (d) Active Exploration: Students must search for answers using a variety of sources; (e) Adult Relationships: Students must meet and work with experienced adult volunteers and specialists; and (f) Assessment Practices: Students must regularly reflect on their learning and the progress they have made toward the criteria they have set. Students regularly assess their work through a range of methods, including exhibitions and portfolios.

Service-Learning

Root and Thorne (2001) report that service-learning is also gaining ground as an effective assessment tool in K–12 and higher education. In North Carolina, students may select service-learning to fulfill the senior project graduation requirement. In service-

learning settings, students are expected to provide direct community service as part of a course, to learn about and reflect on the community context in which service is provided, and to understand the connection between the service activity and the learning objectives of their course (Holland, 2001).

Bordelon and Phillips (2006) found that service-learning creates an environment that challenges students to use their time effectively, access resources needed to solve problems, and deal with a complex and dynamic environment. Although service-learning outcomes vary in relation to numerous variables, Bordelon and Phillips (2006) note that one attribute seems to hold true: service-learning succeeds in promoting personal satisfaction among students who select this type of learning experience. Bradford (2005) adds that many of the abilities that students acquire through project-based service-learning are 21st century interpersonal skills. These include teamwork and problem-solving skills as well as effective oral and written communications skills, which are highly desirable by business communities.

Sipe (2001) notes that worthwhile academic service-learning projects are built upon three key elements. First, they provide meaningful service to others. These services and activities meet needs identified by both collaborating partners. Second, projects provide clear curriculum connections for students engaged in academic service-learning. Clear ties are evident between the project and the overall expectations and goals for the class. Finally, academic service-learning projects incorporate ample time for both reflection and evaluation as an integral part of course work to support ongoing and in-

depth learning. They offer rich opportunities to encourage critical and reflective thinking, as students link the real world beyond the classroom to the subject matter at hand.

Holland (2001) found that service-learning requires many ingredients: faculty time and expertise, coordination and planning, transportation, community time and expertise, student time and commitment, and resources to fund supplies, materials, and products, to name a few. Holland (2001) notes the complexity of service-learning results in two major impacts on assessment strategies. First, given the limitations of organizational time and resources, an investment in service-learning must be measured for its impact and effectiveness in serving the educational mission of the institution. The return on the effort must justify the investment. Faculty wants to see evidence that service-learning is making a difference in the learning of course material, student development of social responsibility, or community conditions.

Second, an assessment of service-learning that focuses only on students will not capture essential data on the impacts of service-learning on faculty, community partners, and the institution. A service-learning course may meet objectives for student learning, but faculty must also monitor the intense impacts on other participants to improve and sustain the working relationship that is the underpinning of worthwhile service-learning experiences. Holland (2001) concludes that for service-learning to be sustained, the institution, faculty, students, and community partners must see benefits of shared efforts.

Senior Project Requirement

The purpose of this study was to understand what North Carolina seniors perceive as essential for the senior project experience to be a worthwhile graduation requirement. Therefore, a discussion of the senior project requirement is included. This section of the literature will examine the origin of the senior project, its various components (i.e., research paper, portfolio, product, and oral presentation), the skills taught by the program, the scoring rubrics/procedures, and the responsibilities of the student, school, project advisor, and review panel of judges.

Senior Projects

The National Commission on the High School Senior Year (2001), which was created by the U.S. Education Department, strongly supports project-based learning. The Commission states that the high school senior year should broaden students' experiences to include service- or work-based learning or culminate previous classroom experience in a senior project. The Commission makes reference to the positive impact of senior projects and how they are recognized as a challenging alternative to conventional assessment practices. Recognition of this model as a method of preparing all students for college, work, and life (Wolk, 2000), as well as its merits as a program with national recognition, suggest that the senior project is a sound curricular practice that challenges students academically and may yield special benefits not found in other instructional practices (Dunn, 2001). Only about 300 of the 21,000 high schools nationwide offer senior projects (Wolk, 2000), but its practice is gaining attention and more schools are

implementing the practice with some, such as North Carolina, requiring completion of the assessment as a graduation requirement.

Origin of the Senior Project

The idea of the senior project was conceived in Medford, Oregon, in 1986 by two high school teachers as a way to alleviate “senioritis” and to ensure that students could read, write, speak, apply, analyze, synthesize, and evaluate when they graduated from high school. They also believed it was a way for students to gain self-confidence and self-discipline (Egelson, Harman, & Bond, 2002). The senior project goals envisioned by the developers were to (a) prepare students for the transition from high school to work and college; (b) increase students’ basic skills, especially reading, writing, and producing a tangible product; (c) increase staff engagement with students; (d) bring the community into the school in a meaningful way; (e) increase parent involvement; (f) increase student self-confidence; (g) change the school culture by celebrating scholarly achievement as much as athletic achievement; (h) create consistent benchmarks across grades and curricula so that all students, regardless of track or Advanced Placement (AP) status, have a challenging academic experience; and (i) provide new career opportunities for teachers and expand teacher skills (Hood, 2004).

Senior Project Components

The North Carolina senior project is patterned after the culminating project recommended by the Standards and Accountability Commission and the Senior Project® program owned by the University of North Carolina at Greensboro (*Exit Standards*

Implementation Guide, n.d.). It is a performance-based exit assessment designed to provide students an opportunity to demonstrate mastery of specific skills that can be found in the North Carolina Standard Course of Study objectives throughout the high school curriculum as well as the Six Key Elements of 21st Century Learning (see Appendix G). Grades are based on state-approved rubrics for each component (See Appendices H, I, & J).

In order to demonstrate skills inherent in this performance-based assessment, students begin work on a project prior to their final year of high school. Moreover, the North Carolina senior project reflects a four- or five-year high school experience benchmarked by specific skills through the secondary grades to encourage and support self-directed learning (*North Carolina Graduation Project Implementation Guide*, 2007).

The North Carolina senior project has four central components: (1) a research paper on a student-selected and teacher-approved topic, (2) a related project or product, (3) a portfolio that traces the development of the project and serves as a summary and reflection of the student's experience, and (4) a presentation to a panel of school staff and/or community members (*Exit Standards Implementation Guide*, n.d.). The project incorporates a learning agreement plan, including a written statement from students about their intended area of study, why they have selected it, how it stretches their learning, how they will relate this to their product or project, who their mentor will be, the intended project timeline, and the resources that will be needed to execute the plan (Shaunessy, 2004).

Shaunessy (2004) notes that the first stage of the senior project involves the student identifying and selecting an area of interest for research. While the student may have some knowledge of the selected field, the research should allow the student to expand beyond his or her current knowledge base in order to gain a deeper understanding of the subject matter (Barron, Schwartz, Vye, Moore, Petrosino, Zech, Bransford, & The Cognition and Technology Group at Vanderbilt, 1998). Barron et al. (1998) note that deep understanding of subject matter includes the ability to explain phenomena rather than simply describe various procedural activities that are part of one's project. The research paper requires students to develop and demonstrate proficiency in conducting research and writing proficiently about a chosen in-depth topic. A senior project steering committee at the school sets parameters to guide the length, format, sources, and other characteristics related to acceptable topic selection, research practices, and writing styles (*Exit Standards Implementation Guide*, n.d.).

Shaunessy (2004) found that the areas of senior project research often involve careers that students are interested in pursuing following graduation, which allows them the opportunity to research and work with mentors in these fields. The mentors are often from the local community or surrounding areas, thus bringing outside experts into the lives of students and creating a learning community that extends beyond the confines of the school. This learning opportunity frequently results in the students deciding to continue to pursue the field in college, but many also decide that they no longer desire to study the field once they learn more about the skills needed or when they see firsthand

the day-to-day routine of a professional, which may not have matched their idealized vision of the occupation.

The product or project phase of the senior project requires students to link their research to a tangible creation, establish a solution for a problem cited in their research, or participate in a service-learning project (*Exit Standards Implementation Guide*, n.d.). Shaunessy (2004) notes that the products are critical steps in the learning process; they provide tangible evidence of what has been learned through study and investigation. The products are recommended assessment tools that allow students to showcase and apply their knowledge in a format that goes beyond paper-and-pencil tests and combines much more, such as advanced content, process skills, and organizational aspects. Hood (2004) notes that developing the project showcases skills (e.g., communication skills, time management, reflection, citizenship, and self-evaluation) that are critical for success in college and the workplace.

The product should challenge the student, allow him or her to show applications of learning, and reflect that the student has spent substantial time completing it. A senior project advisor and/or a school-based committee approve the initial plans for the product and then regularly monitor through the student's journal or log the work in progress (*Exit Standards Implementation Guide*, n.d.).

The portfolio assessment is the systematic and selective collection of student work that shows mastery or growth over the course of the project's development (Walther-Thomas & Brownell, 2001). Decisions about what goes into the portfolio are

typically made by the student creating the collection, but may also involve teachers and peers as well as structural requirements for the entire project. The *Exit Standards Implementation Guide* (n.d.) cites several advantages in using portfolios as an assessment tool. First, they allow teachers to capture student learning over time and in a variety of ways. Also, portfolios engage students in the assessment of their own progress because students have a voice in the selection of relevant activities for the portfolio assessment. Because portfolios highlight a student's best work samples, they are easier than formal measures, such as norm-referenced test data, to demonstrate and convey student progress toward course requirements, standards, or Individualized Education Program (IEP) goals. The portfolio for the senior project is monitored on a regular basis by the project advisor, a course teacher who assigns the grade, and/or a mentor.

The oral presentation is the final phase of the senior project, which allows students the opportunity to verbalize their learning in a formal assessment (*Exit Standards Implementation Guide*, n.d.). Students present a speech about their paper and project and answer questions posed by a review panel of judges. The senior project review panel of judges is comprised of educators and community members with expertise in the student's area of study. The judges use established criteria and state-endorsed rubrics (see Appendices H, I, & J) in evaluating the oral presentation. The value of communication skills (Shaunessy, 2004), particularly public speaking, is emphasized as students share information about their paper, their project or product, and their reflections about the experience.

The Impact of Senior Projects

Egelson, Harman, and Bond (2002), researchers with the South Eastern Regional Vision for Education (SERVE), conducted a study on the impact of senior projects on participating schools. In the spring of 1998 and the spring of 1999, SERVE collected data through surveys about the impact of senior projects from approximately 1,880 students, 180 parents, 170 faculty members, and 16 senior project coordinators. Results from the surveys indicate that 75% of students agree and/or strongly agree that their writing, research, speaking, planning, and time management skills improved as a result of the senior project participation. Furthermore, parents' and senior project coordinators' degree of agreement is even higher—over 80%.

SERVE staff also conducted a field study of selected senior project schools and control schools during the 1999–2000 school year. Researchers (Egelson et al., 2002) identified four treatment schools that had institutionalized senior projects for at least four years, with all seniors participating in senior projects and with all the program components (research paper, product, portfolio, and presentation) in place. Control schools were selected to match each senior project school based on staff size, size of student body, percent of students in the federal free lunch program, percent of minority students enrolled at the school, overall performance in the state testing program, and urbanicity. A variety of measures, including focus groups, writing assessments, achievement test scores, and surveys, were used to examine possible differences between senior project and control schools.

Results of the study indicate several statistically significant associations between the type of school (i.e., senior project schools vs. control schools) and whether students' perceptions of specific skills were learned and reinforced in the students' high school classes. Students who responded to surveys about senior project sites indicate a more positive association with the following specific skills than did their counterparts at the control schools: writing a research paper, preparing and presenting a speech, carrying out a plan, and conducting interviews. Furthermore, similar findings (Egelson et al., 2002) indicate that students at senior project schools perceive the following skills to have been reinforced more in their classes than the students at control schools: preparing and presenting a speech, conducting research, and locating appropriate references. Additionally, teachers at senior project schools indicate using rubrics and extended projects to assess student performance more often than control teachers.

Research suggests that rural adolescents must contend with a range of formidable challenges to their career development and preparedness to make post-high school transitions (Lapan, Tucker, Se-Kang, & Kosciulek, 2003). For example, rural adolescents may have lower career aspirations and greater expectations for entering the workforce immediately after high school than do adolescents who live in other settings. Many rural young people face geographic isolation that limits future employment opportunities. Rural 12th graders who indicated that their high school course of study had been organized around a career goal expressed greater satisfaction and had higher levels of education associated with their anticipated post-high school setting than did 12th graders

whose course work was not organized around a career goal. Increased career development activities predicted greater student satisfaction that their education was better preparing them for their future and for their plans to enter post-high school settings that require more education.

The research shows that participation that is more rather than less active in the pursuit of personally valued, autonomously chosen goals helps individuals develop direction, meaning, social connectedness, and subjective well-being in adulthood (Curtis, 2002). Project-based learning may also motivate hard-to-reach students. A former principal at an alternative high school in New Mexico saw how project-based learning excited a student who had little success at a more traditional high school. The student was disruptive in the traditional school and had poor academic skills, especially in writing. At the alternative school, he began doing construction math with the special education teacher. In this case, the construction was building sidewalks to connect the school buildings. Students calculated angles, figured out the volume of gravel and concrete needed, and determined how much water was required and how deep and wide the pit should be. Then they did the physical work of digging the holes, leveling the earth, and pouring the concrete. Each student kept a journal of progress. The audience for this project was the student body, many of whom thanked their classmates for a convenient walkway and new skateboard route. The student, actively involved in the project, did not cause trouble for other students and was willing to do the reading and writing part because he knew he would be using a shovel later.

A recent survey (Cavanagh, 2004) found that high school teachers believe project learning programs, such as apprenticeships, internships, and job shadowing, are effective in getting students interested in school, raising their academic achievement, and helping them become more motivated to attend college. The survey, conducted by Junior Achievement, a non-profit organization based in Colorado Springs, Colorado, polled 399 high school social studies and business teachers and found that 92% of the high school teacher respondents said experience learning was “somewhat effective” or “very effective” in motivating students to learn. The survey also found that 85% of the teachers believed the programs sparked an interest in higher education and careers, and 79% believed such programs helped curtail dropout rates.

Shanley (1999) notes students at work in a project-based environment learn over time to take charge of their education. In many project-based classrooms, students are often very aware of district or state curriculum because these standards are included in the project assessment rubric. Students have clear expectations to strive toward in their work. If learning is done properly, it will fully implement the standards.

Although many have claimed that performance-based assessments can do a better job than traditional tests, in truth there is little empirical evidence to support such a claim (Bond, 1995; Linn, Baker, & Dunbar, 1991). Lingering questions remain regarding both the technical adequacy and the responsiveness of performance-based assessments for assessing students.

The Senior Project Advisor's Role

Shaunessy (2004) found that advisors are critical to the success of senior projects and need to provide students with support. They must remain actively engaged in monitoring student progress and must evaluate each student's abilities continually, providing needed instructional support to scaffold learning. Barron et al. (1998) note one of the most important ways to scaffold open-ended projects is to help students continually reflect on how and why their current activities are relevant to the overall goals (the big picture) of the project. Advisors may need to provide instruction in research skills, assist the student in locating resources, or both.

Project-based learning, such as the senior project, may present challenges for advisors. Curtis (2002) notes that advisors need to be ready to encourage a student who wants to take off in an unexpected direction to pursue his or her interests and also make sure that the student covers the required state or local curriculum. Advisors often have to admit that they do not have the answer and direct students to outside resources. In addition, advisors must oversee students who are working on different themes and who are working at different paces and skill levels.

Moreover, a study of project-based learning by Marx and Blumenfeld (1997) found that the in-depth investigations involved in projects often take longer than expected. Even teacher advocates of project-based learning told the George Lucas Educational Foundation (2001) that it creates more work for school staff than the traditional textbook curriculum in which instructors know what will happen during

every class period.

The Mentor's Role

Senior projects require students to have a mentor who is knowledgeable in their selected area of study (*Exit Standards Implementation Guide*, n.d.). Frequently, mentors are from the local community or surrounding areas, thus bringing outside experts into the lives of students and creating a learning community that extends beyond the confines of the school walls. Shaunessy (2004) contends that students learn information about their topic of choice and develop advanced skills and concepts while networking with specialists. Mentors advise students about realistic research and project choices, monitor and document the progress of the senior project phases, and provide insight into the student's overall effort and growth through a culminating statement in a letter to the senior project advisor (*Exit Standards Implementation Guide*, n.d.).

Testimonials abound about the success of programs that take students into the real world and give them mentors as teachers. In California, a teacher who has done senior projects for 10 years says former students testify that the work prepared them for college better than anything else they did (Wolk, 2000). However, as with any interaction that involves students and the general public, teachers and parents must use caution to screen participants carefully and monitor the relationship between the student and the mentor. With appropriate conditions, mentorships have been shown to be beneficial learning opportunities for both students and mentors, creating a vital link between the community and the school (Shaunessy, 2004).

Project-based learning works best when teachers, parents, and the community are involved as resource people or as part of the assessment. But it is often difficult in many schools to get parents and community involved. A study by Lapan, Tucker, Se-Kang, and Kosciulek (2003) found that 12th graders who believe that counselors, teachers, parents, and mentors are supporting their educational and career development indicate greater involvement in curriculum strategies than 12th graders in the study who did not believe that counselors, teachers, parents, and mentors were supporting their educational and career development. The 12th graders who reported more support also reported that their course work was more organized around a career goal, that their classes had contained more relevant connections to possible careers, and that they were participating in more work-based learning experiences and connecting activities than did other 12th graders in the study.

In project-based activities, teachers are facilitators, mentors, and public-relations experts. Community members are mentors and possess an immeasurable fountain of information and leadership skills. All in all, each contributes to the team that fuels the individual student (Lapan et al., 2003; Shaunessy, 2004; Wolk, 2000). Students learn to plan out their projects and upon completion, reflect on the outcomes, successes, trials, and failures. Students determine what went right and what went wrong and have the opportunity to report on the project from their own perspective and in their own way. By following this process, students learn to work with others and experience their opinions and perspectives, to see the connection between what they are learning and life outside

the school, and more important to learn that they are responsible for their own learning (*Exit Standards Implementation Guide*, n.d.).

Perceptions

Because this was a study of student perceptions, a review of the literature on the nature and dynamics of perceiving is included. This section of the literature discusses the perceptual tradition, a theory that focuses on the perceiving person and the ways he or she experiences oneself, others, and the world.

Perceptual Tradition

As explained by Purkey and Schmidt (1987), the perceptual tradition seeks to understand human behavior from the perspective of a person's own personal and unique experiences. The basic contention of this theory is that people behave according to how they see themselves and the situation in which they are involved (Purkey & Novak, 1996). In other words, all behavior is dependent upon the individual's personal frame of reference and is a function of the perceptions that exist for the person at the moment of behaving (Purkey & Schmidt, 1987).

Purkey and Schmidt (1987) outline 14 basic assumptions of the perceptual tradition:

1. "There may be a preexistent reality, but an individual can only know that part which comprises his or her perceptual world, the world of awareness.
2. Perceptions at any given moment exist at countless levels of awareness, from the vaguest to the sharpest.

3. Because people are limited in what they can perceive, they are highly selective in what they *choose* to perceive.
4. All experiences are phenomenal in character: The fact that two individuals share the same physical environment does not mean that they will have the same experiences.
5. What individuals choose to perceive is determined by past experiences as mediated by present purposes, perceptions, and expectations.
6. Individuals tend to perceive only that which is relevant to their purposes and make their choices accordingly.
7. Choices are determined by perceptions, not facts. How a person behaves is a function of his or her perceptual field at the moment of acting.
8. No perception can ever be fully shared or totally communicated because it is embedded in the life of the individual.
9. 'Phenomenal absolutism' means that people tend to assume that other observers perceive as they do. If others perceive differently, it is often thought to be because others are mistaken or because they lie.
10. The perceptual field, including the perceived self, is internally organized and personally meaningful. When this organization and meaning are threatened, emotional problems are likely to result.
11. Communication depends on the process of acquiring greater mutual understanding of one another's phenomenal fields.

12. People not only perceive the world of the present but they also reflect on past experiences and imagine future ones to guide their behavior.
13. Beliefs can and do create their own social reality. People respond with feelings not to 'reality' but to their perceptions of reality.
14. Reality can exist for an individual only when he or she is conscious of it and has some relationship with it" (p. 30).

Based on these 14 assumptions, Purkey and Schmidt (1987) argue that the perceptual tradition is centered on the basic premise that all behavior is a function of the individual's perceptual field. "A person's behavior may make little sense when observed from the 'external' views of other people, but this same behavior makes great sense when understood from the vantage point of the 'internal' view of the experiencing person" (p. 30).

Learned Perceptions

Slavin (2000) defines perception as a person's interpretation of stimuli. When the senses receive stimuli, the mind immediately begins working on some of them. Therefore, the sensory images of which we are conscious are not exactly the same as what we saw, heard, or felt; they are what our senses perceived. Perception of stimuli involves mental interpretation and is influenced by our mental state, past experiences, knowledge, motivations, and many other factors. "We do not perceive stimuli as we see or sense them but as we know (or assume) they really are" (p. 176).

Purkey and Schmidt (1987) note that from birth individuals assimilate countless

perceived objects, situations, interactions, and relationships into their perceptual fields. Based on this assimilated content, they then choose actions that seem most appropriate to their perceived fields. Moreover, people monitor, to various degrees, their own behavior and its impact on themselves, others, and the world. Information obtained through these processes is filtered through their perceptual system, which either confirms the perceptions in the perceptual fields or requires an alternation.

Purkey and Novak (1996) explain that perceptions change over time. Through numerous encounters with the world, particularly those with significant others, people develop certain fundamental perceptions that serve as organizing filters for making sense of the world. Purkey and Schmidt (1987) say that it is through these countless and continuous interactions that people develop both negative and positive perceptions about themselves, others, and the world. While a majority of these perceptions will undergo change over time, some fundamental ones remain relatively stable. These core perceptions guide decisions and serve as a “frame of reference for judgment” (p. 48) and are the heart of one’s self-concept.

Self-perception

Purkey and Novak (1996) emphasize that of all the perceptions that people learn, none seems to affect one’s search for personal significance and identity more than self-perception—a person’s view of who one is and how one fits in the world. Research (Purkey & Novak, 1996; Slavin, 2000) shows that self-concept development begins at birth and is continually influenced by countless interactions with persons, places,

policies, programs, and processes. It includes the way in which we perceive our strengths, weaknesses, abilities, and values.

Purkey (1988) notes that a number of the successes and failures that people experience in many areas of life are closely related to the ways that they have learned to view themselves and their relationships with others. It is apparent that perceived success and failure have an impact on self-concept. Failure in a highly regarded area lowers evaluations in all other areas as well, while success in a prized area raises evaluations in other seemingly unrelated areas.

The literature (Hoff, 1984; Purkey & Novak, 1996; Purkey & Schmidt, 1987) indicates a significant relationship between students' evaluations of themselves and their level of academic achievement. Purkey and Novak (1996) note that students who have more positive perceptions of themselves and their abilities are more persistent at school tasks, whereas those who have poor self-concepts are more likely to give up when faced with difficult situations.

Purkey and Novak (1996) argue that self-concepts of students are heavily influenced by those who treat them as able, valuable, and responsible—as well as by those who treat them as unable, worthless, and irresponsible. Purkey and Schmidt (1987) explain when people believe others see them as able, valuable, and responsible, they tend to behave in ways that validate those beliefs. When people believe others see them as unable, worthless, and irresponsible, their behavior is likely to reflect this opinion as well. Specifically, people tend to live up or down to the expectations of others, no

matter in what direction these expectations may point.

Purkey and Novak (1996) maintain that with advances in age and grade level there is a significant decrease in both self-regard and attitudes toward school and academics. For example, in data released by the U.S. Department of Education, Purkey and Novak (1996) found that students' positive attitudes toward writing decline steadily and significantly across the grades. According to the data, 57% of the students in the fourth grade report that they like to write. By the 11th grade this has declined to 39%.

In addition, Purkey and Novak (1996) indicate that there is a downward trend in student self-concept as students progress through school. Their research shows that academic self-concept drops not only for students representing both gender and racial groups, but also there is a downward spiral in both gifted and average students. Purkey and Novak (1996) claim that this gradual erosion of enthusiasm for learning provides a compelling argument for more inviting schools. They contend that students who are surrounded by an inviting environment are not as likely to experience a decline in self-concept-as-learner as students in less intentionally supportive schools.

Self-concept as Guidance System

Purkey and Schmidt (1987) contend that the beliefs a person holds to be true about his or her personal existence serve as a guidance system in formulating the direction of his or her behavior. In a sense, this perceptual guidance system indicates the direction a person should follow in life. A major difference in these perceptual guidance systems is that people who hold realistic and positive beliefs about themselves and their

abilities are more likely to encounter success, while those who harbor unrealistic and negative beliefs are more likely to meet failure. Purkey and Novak (1996) explain that being right in one's assumptions about oneself, even about negative feelings toward oneself, can be satisfying.

Research (Purkey & Novak, 1996; Purkey & Stanley, n.d.) shows that one's self-estimated sense of self-efficacy is one of the best predictors of behavior. From a lifetime of studying his or her own actions and those of significant others, each individual acquires expectations about what things fit his or her personal world. Each person acts in accordance with the ways he or she has learned to see himself or herself.

Purkey and Stanley (n.d.) note that people with a strong sense of personal competence approach difficult tasks as challenges to be mastered rather than threats to be avoided. They have greater intrinsic interest and deep engrossment in activities, set challenging goals and maintain strong commitment to them, and heighten and sustain their efforts in the face of failure. Moreover, they recover more quickly their sense of efficacy after failures or setbacks and attribute failure to insufficient effort or deficient knowledge and skills, which are acquirable. Conversely, people with low self-efficacy may believe that things are tougher than they really are—a belief that fosters stress, depression, and a narrow vision of how best to solve a problem. As a result of these influences, self-efficacy beliefs are strong determinants and predictors of the level of accomplishment that individuals finally attain.

Purkey and Novak (1996) argue that whether a student's self-perception is

psychologically healthy or unhealthy, educationally productive or counterproductive, the student will cling to it. In fact, students who have learned to see themselves as stupid will experience considerable anxiety over their own successful performance. Students who have learned to expect failure are even likely to sabotage their own efforts when they meet unexpected success. They actively maintain self-pictures even if the pictures are false and unhealthy.

Purkey and Stanley (n.d.) note that if a new perception is consistent with those already incorporated into the self, the individual easily accepts and assimilates that new perception. However, if the new experience is in opposition to those already incorporated, the person will automatically reject it, no matter how self-enhancing it might appear to the external observer. Hence, people accept and incorporate that which is agreeable and congenial with their self, and they reject and avoid evidence that is disagreeable and incongruous.

Significance of Positive Self-regard

Purkey and Novak (1996) agree that self-regard and efforts to control one's destiny correlate highly. They contend that without self-confidence, students easily succumb to apathy, dependency, and loss of self-control. Too often, as Purkey and Novak (1996) argue, the real problem of negative self-esteem is hidden beneath such labels as *unmotivated*, *undisciplined*, *unable*, or *uninterested*. The classroom result, in such instances, is that students with low self-regard will expect the worst in every situation and will be constantly afraid of saying the wrong word or doing the wrong thing. Persons

high in their own self-estimation, however, approach tasks and persons with the expectation that they will be well-received and successful. In addition, individuals high in self-esteem are more independent of external reinforcement and more consistent in their social behavior.

Summary of Chapter II

In May 2005, the North Carolina State Board of Education voted unanimously to increase exit standards for high school students. The research literature suggests that the implementation of higher exit standards often yields negative consequences. In such instances, the literature indicates that teachers may teach to the test, school absences and dropout rates may increase for students who struggle academically, failure rates may increase, and graduation rates as well as college entrance exam scores may often decrease. The literature also indicates that many stakeholders—educators, parents, business people, state and federal legislators, and other politicians among them—believe that traditional testing instruments have failed to assess academic skills and knowledge in real-life situations. Therefore, these stakeholders think a more appropriate assessment strategy than current exit exams may be project-based learning assessments. Based on the research literature, the purported ability of performance-based assessments to provide a more comprehensive view of what students can actually do in the real world appears to give performance assessments an edge over traditional tests.

Additionally, this was a study of student perceptions of the experiences and conditions that students perceive are necessary to successfully complete the senior

project. As such, the research literature shows that there are individual differences in perception that occur constantly in the course of daily interactions, and it is the uniqueness of students' personal perceptions that permits an endless variety of interpretations of the same event.

In the following chapter, a description of the research methodology used in this study is presented. Chapter III provides procedures for data collection, data management, and data analysis. The chapter outlines the significance of the study and the ethical concerns associated with qualitative research. It concludes with a discussion of the study's limitations and how the researcher addressed those issues.

CHAPTER III

METHODOLOGY

Introduction

North Carolina requires students to complete a senior project starting with the graduating class of 2010. The senior project is a promising complement to conventional norm-referenced tests and a key component of school-to-work or school-to-higher education opportunities. However, the senior project can present challenges as students plan and develop individual projects, use unique resources, work independently outside of the classroom, and collaborate with others. Communication, documentation, and time management skills are critical, particularly as projects are completed and evaluated. Therefore, its promise can be fulfilled only if the experience is of high quality.

The purpose of this phenomenological research study was to understand what seniors perceive as essential for the senior project experience to be a worthwhile graduation requirement. The findings from this study may provide educators in North Carolina with suggestions on ways to plan and implement the senior project in schools and may provide information on the experiences and conditions students need in order to help them successfully complete the senior project. Moreover, the study offers a methodological template for investigating similar phenomena in populations beyond North Carolina schools. The objective of this study was to address the following research questions:

- From the student perspective, what is the essential structure of worthwhile senior project programs?
- What is difficult or easy about the senior project?
- What does the senior project do for students?
- What does the senior project not do for students?
- What, if anything, do students learn from doing the senior project?

Creswell (1998) indicates that when a researcher selects a method of studying a particular problem or situation, he or she should select the approach best suited to the nature of the study. For this study, a qualitative research approach was selected for several reasons. First, a main task of qualitative research “is to explicate the ways people in particular settings come to understand, account for, take action, and otherwise manage their day-to-day situations” (Miles & Huberman, 1994, p. 7). Second, with qualitative research the “researcher attempts to capture data on the perceptions of local actors ‘from the inside,’ through a process of deep attentiveness, of empathetic understanding, and of suspending or ‘bracketing’ preconceptions about the topics under discussion” (Miles & Huberman, 1994, p. 6). Furthermore, qualitative research allows the researcher to talk with and to observe subjects in their natural environment. Certain kinds of behavior can only be (or can best be) observed as they occur naturally. As Gay and Airasian (2003) note, the intent of qualitative research is to record and study behavior as it normally occurs; the qualitative researcher’s approach to naturalistic observation tends not to have a predetermined focus.

This was a study of student perceptions intended to provide a beginning insight into planning and implementation strategies for senior project programs and to provide information on the experiences and conditions students perceive are necessary to successfully complete the senior project. Using the qualitative approach allowed the researcher to collect, examine, and report student informants' suggestions on ways to plan and implement the senior project requirement in schools and to know what experiences and conditions that students perceive are needed in order to help them be more successful in completing the project.

Theoretical Framework

The qualitative tradition of phenomenology was chosen to conduct this study. Phenomenology was chosen as the appropriate methodology because the researcher was searching for an understanding of the meaning of the participants' experiences (Moerer-Urdahl & Creswell, 2004). Creswell (1998) defines a phenomenological study as one that "describes the meaning of the lived experiences for several individuals about a concept or the phenomenon" (p. 51). Polkinghorne (1983) identifies this focus as trying to understand or comprehend meaning of human experience as it is lived and notes that it differs from other approaches due to its emphasis on the participants' experienced meaning rather than just on a description of their observed behaviors or actions. In a phenomenological study, the researcher searches for the essences of the experiences of the informants. All possible meanings are explored, and emergent themes are identified (Creswell, 1998). Phenomenological research methods attempt to uncover the underlying

essences and meanings of experiences to arrive at a deeper, intersubjective understanding of the phenomenon under study (Gibson & Hanes, 2003). For these reasons, a phenomenological study was best suited for this research and lends a much needed perspective on students' experiences that are of such relevance to schools planning and implementing senior project programs.

Creswell (1998) summarizes the following procedural issues necessary for a phenomenological study: (a) The researcher needs to understand the philosophical perspectives behind the phenomenological approach, especially the concept of studying how people experience a phenomenon; (b) the investigator writes research questions that explore the meaning of that experience for individuals and asks individuals to describe their everyday lived experiences; (c) the investigator then collects data from individuals who have experienced the phenomenon under investigation; and (d) the phenomenological data analysis steps are generally similar for all psychological phenomenologists who discuss the methods (pp. 54–55). This includes listing the specific statements (horizontalization), transforming the statements into clusters of meanings, and then grouping the clusters into a general description of the experience.

Participants

Gay and Airasian (2003) note that qualitative research is characterized by in-depth inquiry, immersion in setting, emphasis on context, concern with participants' perspectives, and description of a single setting, not generalization to many settings. These characteristics call for small sampling strategies that produce samples that are

predominantly small and nonrandom. Therefore, in selecting student participants for this phenomenological study, the researcher used criterion-based selection.

Criterion-based selection required the researcher to first establish a set of criteria or a list of attributes that the participants for study must possess. In choosing this purposeful sample, the researcher used the following set of criteria: (a) students selected had to be currently enrolled in the 12th grade at a North Carolina high school that has had a worthwhile senior project program in place for at least four years. Fullan's (2000) experiences with multiyear efforts in school reform find it takes about three to five years for schools to establish reform and to begin to achieve successful change in student performance.

Years before the state requirement of a senior project went into effect in 2005, many high schools across the state took responsibility for conceiving, developing, and implementing standards for a project that 12th-grade students would complete as a local requirement for graduation. The North Carolina State Board of Education and the North Carolina Department of Public Instruction followed the progress of these early ventures of several high schools. Based on the evidence and the positive findings received from these sites, North Carolina educational leaders encouraged high schools to not only continue their efforts, but also to expand the concept of the senior project (*North Carolina Graduation Project Implementation Guide*, 2007). Students selected for this study were enrolled at one of the early senior project schools.

Creswell (1998) notes that in phenomenological studies the process of

collecting information involves primarily in-depth interviews with as many as 10 individuals. To obtain the desired depth of information required for this study, (b) a diverse sample of 10 students that consisted of both males and females who were enrolled in Academic English, Honors English, or Advanced Placement (AP) English courses was required. Having students from different course levels was important for this study because project requirements differed for students based on their English course level.

In a phenomenological study, it is most important to have “individuals who have experienced the phenomenon being explored and can articulate their conscious experiences” (Creswell, 1998, p. 111). Therefore, (c) the students selected had to have completed the four project components that included a research paper, a product, a portfolio, and a presentation, and (d) they had to be willing to make a commitment to participate in the study.

To determine the names of the students who met the above listed criteria, the researcher initially contacted the principal at West High School. The principal granted approval to involve students in the research and referred the researcher to the graduation project coordinator for help in selecting students for the study. The graduation project coordinator was responsible for overseeing the senior project program at the school and was also the English department chair. Knowing that sample bias can arise when the intended sample does not adequately reflect the spectrum of characteristics in the target population (Gay & Airasian, 2003), it was important to avoid bias by clearly defining for the graduation project coordinator the criteria required of the research sample. Although

the target group was clearly defined, it is beyond the researcher's control to guarantee that the sample selected by the graduation project coordinator was representative of the population. The researcher could only talk with students who could be contacted.

The graduation project coordinator sent the researcher a list of students that she personally selected and believed met the research criteria. From that list the researcher contacted the students to gain their commitment to participate in the study. Table 1.1 shows the gender, age, race, overall grade point average (GPA), and the English course of study for each of the participants involved in this study.

Table 1.1. *Gender, Age, Race, GPA, and English Course of Study of Participants*

Participant	Gender	Age	Race	GPA	English Course
Andrew	Male	18	African American	4.75	AP
Matthew	Male	17	Caucasian	4.77	AP
Ava	Female	17	Vietnamese American	3.7	Honors
Daniel	Male	18	African American	3.0	Honors
Emily	Female	17	African American	2.6	Honors
Ethan	Male	18	African American	3.0	Honors
Josh	Male	18	Caucasian	3.5	Honors
Hannah	Female	17	African American	2.2	Academic
Madison	Female	17	African American	3.2	Academic
Samantha	Female	18	Caucasian	2.8	Academic

Each student was asked to participate voluntarily for the research. Students signed a consent statement to gain his or her approval for participation in the study and to be interviewed (Appendix K). If a student was under age 18, the consent form required the parent's, guardian's, or legal representative's signature in order for the student to participate. This form indicated that the student's identity will remain confidential and that the information provided may be used in a professional report with the use of pseudonyms to ensure confidentiality. The form asked students to sign and agree to have the interview tape-recorded. Students were advised that the interview would last approximately one hour and would be scheduled at the students' convenience but would not be scheduled during students' instructional time. Because participation in the study was voluntary, students could terminate the interview or decline to participate at any time. All tape recordings were erased at the conclusion of the study.

Data Collection

The purpose of this phenomenological research study was to understand what seniors perceive as essential for the senior project experience to be a worthwhile graduation requirement. In this phenomenological study, the researcher sought to answer the following research questions: (a) From the student perspective, what is the essential structure of worthwhile senior project programs? (b) What is difficult or easy about the senior project? (c) What does the senior project do for students? (d) What does the senior project not do for students? and (e) What, if anything, do students learn from doing the senior project?

The following two methods of qualitative data collection were used to explore the research questions: (a) in-depth interviews, from which written verbatim transcripts were produced and (b) document analysis.

To examine students' attitudes, interests, feelings, values, and concerns pertaining to the senior project graduation requirement and to produce rich, thick data, the researcher conducted over a two-month period a series of one-hour in-depth interviews with each of the 10 participants. An interview guide (see Appendix L) developed by the researcher was used for conducting the semistructured interviews. With the semistructured interviews, the questions and order of presentation were predetermined, and the questions were open-ended (Bogdan & Biklen, 2003). This allowed for follow-up probing questions to explore in depth the answers to questions posed to participants. One of the emphases in qualitative research is its focus on depth of understanding. Using an interview that permitted the researcher to probe participants' responses, explore unplanned topics that arose, and obtain clarification of the participants' responses helped produce rich data filled with words that reveal the respondents' experiences and perspectives and add to the depth of understanding.

Each student informant was interviewed separately to better comprehend the student's individual experiences and perspectives of the senior project. All one-hour interviews were conducted after school hours in either an empty classroom or in the media center's conference room at the school. The researcher felt these were quiet locations free from distractions (Creswell, 1998) that allowed for the best situation to

provide honest responses and to offer a natural, unobtrusive, and nonthreatening setting for each participant. During the interview process, the researcher found that she was able to set aside her personal knowledge about the senior project and to pay close attention to her role as an interviewer for this study.

Each interview was tape-recorded and transcribed verbatim no later than one week after the interview was conducted. Participants were interviewed once; however, if necessary, follow-up communication through email correspondence was used to expand on participants' prior responses and to pursue further information provided by other sources such as the students' personal documents.

After each interview, the researcher made reflective field notes that recorded her personal reactions, concerns, or what she experienced or thought during the course of the interview session. Bogdan and Biklen (2003) believe that the meaning and content of an interview can be captured more completely if, as a supplement to each interview, the researcher writes out field notes. The field notes provided a personal log that helped the researcher keep track of the development of the project, to visualize how the research plan was being affected by the data collected, and to remain aware of how she had been influenced by the data. The field notes were entered into the researcher's personal computer for future examination and used for data analysis.

Document analysis was used in connection with, or in support of, the interviews. To gain a fuller understanding of the phenomena, the researcher examined the research

paper, the portfolio, and the product that each student produced for the senior project. The aim was to obtain similar information from different independent sources.

Because participants' papers, products, and portfolios were lengthy and needed clarifying and summarizing, the researcher created and filled out a document summary form (see Appendix M) for each of the student's items. Miles and Huberman (1994) say "it helps to create and fill out a document summary form . . . it puts the document in context, explains its significance, and gives a brief summary" (p. 54). For this study, the researcher's document summary form named or described the document, explained its importance, gave a brief summary of its contents, and included reflective commentary. Like the field-notes data, the data from the completed document summary forms were entered into the researcher's personal computer for examination and later used for data analysis.

Researchers triangulate by using different data sources to confirm one another and enhance the credibility of the data (Bogdan & Biklen, 2003; Gay & Airasian, 2003; Miles & Huberman, 1994). Although the main data source for this research came from the individual interviews, document analysis was used to corroborate the interview data. Examining documents to corroborate participant information was useful because the documents were unobtrusive measures that were not affected by the presence of the researcher (Gay & Airasian, 2003). Using triangulation, or multiple sources, led to a fuller understanding of the phenomena (Bogdan & Biklen, 2003) and reduced researcher bias and increased the validity and credibility of the data collected (Bogdan & Biklen,

2003; Gay & Airasian, 2003).

Data Management

Gay and Airasian (1992) argue there are two main purposes of data managing: (1) Organizing and checking the data for completeness and (2) starting the process of analyzing and interpreting the data. To help facilitate the analysis of the data, the researcher made sure that she dated, organized, and sequenced all field notes, interview transcripts, memos, and reflections. The data was organized in computer files; she created a separate folder for each of the 10 participants. Each folder contained the student's transcribed interview data, the completed document analysis forms, the researcher's field notes, and any other information pertaining to the individual participant.

The researcher made copies (at least two) of the interview transcripts, the field notes, and the document summary forms so that she could mark or underline important sections while still retaining a clean, unmarked copy of the original data. One unmarked copy was placed in a safe and secure location (Bogdan & Biklen, 2003; Gay & Airasian, 2003), making sure that all the data were there and ordered. The researcher also made backup copies of any computer files containing data in the event that some data were lost or deleted. At all times, the data remained secure to ensure confidentiality of the participants.

Miles and Huberman (1994) advise researchers to not put off coding to the end of data gathering. They argue that qualitative research depends heavily on ongoing analysis, and coding is a good device for supporting that analysis. Therefore, after the data were

ordered, the researcher read each transcript in its entirety several times (Creswell, 1998) and began to develop a preliminary list of possible coding categories. All of the codes were listed on a single sheet for easy reference, and the researcher made sure that all of the codes were distinct from others in meaningful, study-important ways (Miles & Huberman, 1994).

Data Analysis

For this phenomenological study, the researcher followed Creswell's (1998) and Moustakas's (1994) six-step procedure for analyzing the data. The first step was for the researcher to set aside prejudgments, as much as possible, and write a full description of her own experiences with the phenomenon. Setting aside prejudgments is called "epoche," which is a Greek word meaning to refrain from judgment (Moerer-Urdahl & Creswell, 2004). Moustakas (1994) notes that epoche is the beginning of the phenomenological reduction process. References to others, their perceptions, and judgments must be put aside to achieve epoche, and only the researcher's perceptions are retained as indicators of knowledge, meaning, and truth.

This approach was taken at the start of the study by the researcher so that she could set aside, or bracket, her views of the phenomenon and focus on those views reported by the participants. Based on Moustakas's (1994) suggestions "no position whatsoever [was] taken . . . nothing [was] determined in advance;" the researcher's written description of the phenomenon remained present and focused on her own consciousness "by returning to whatever [was] there in . . . memory, perception,

judgment, feeling, whatever [was] actually there” (p. 84).

Similar to Moustakas (1994) and Creswell (1998), Lavery (2003) believes when a decision is made to engage in research of a particular experience from a phenomenological perspective, the researcher must begin a process of self-reflection. The purpose of this reflection is to become aware of one’s biases and assumptions in order to bracket them, or set them aside, in order to engage the experience without preconceived notions about what will be found in the investigation. This awareness is seen as a protection from imposing the assumptions or biases of the researcher on the study (Creswell, 1998; Lavery, 2003).

A number of different writers have described the process of phenomenological reduction or bracketing, which was developed by Husserl (Creswell, 1998; Klein & Westcott, 1994; Osborne, 1994; Polkinghorne, 1983). Husserl proposed that one needed to bracket out the outer world as well as individual biases in order to successfully achieve contact with essences. This is a process of suspending one’s judgment or bracketing particular beliefs about the phenomena in order to see it clearly.

Polkinghorne (1983) describes bracketing as a two-fold process from Husserl’s work. A method of free variation leads the researcher to a description of the invariant or essential structures of the phenomena, without which it would not exist. The use of intentional analysis then focuses on the concrete experience itself and describes how the particular experience is constructed. Osborne (1994) describes bracketing as identifying one’s presuppositions about the nature of the phenomena and then attempting to set

them aside to see the phenomena as it really is.

For this study, the researcher began with a full description of her own experience of the phenomenon. Clarifying the researcher's experience of the phenomenon from the outset of the study was "important so that the reader understands the researcher's position and any biases or assumptions that impact the inquiry" (Creswell, 1998, p. 202). This increased the trustworthiness and authenticity of the study and also helped the researcher to understand the experience of each subject and not impose an a priori hypothesis on the experience.

For the second step in the data analysis, the researcher found significant statements in the interview transcripts about how each individual experienced the topic (Creswell, 1998; Moustakas, 1994). After each interview was transcribed, the researcher read through the collected data and wrote notes in the margins and underlined sections or issues that seemed important. Throughout the process, the researcher used a constant comparative method for identifying similarities and differences by comparing new evidence to prior evidence. After all 10 interviews were transcribed and themes and patterns were noted, the researcher read through all the collected data from all the interviews to acquire a feeling for them. Creswell (1998) indicates that he favors "reading through all collected information to obtain a sense of the overall data" (p. 140).

The first step in the analysis was the process of horizontalization (Creswell, 1998; Moustakas, 1994), in which significant statements, phrases, and sentences that provided information about the experiences of the participants were gleaned from the

transcripts. The researcher used horizontalization and extracted significant statements from the interviews to create a table so that the researcher could identify the range of perspectives about the phenomenon. At this phase of the analysis, no attempt was made to group these statements or to order them in any way. According to Moustakas (1994), in this phase of analysis the researcher simply wants to learn how individuals view the phenomenon. Moustakas (1994) describes the horizon as “the grounding or condition of the phenomenon that gives it a distinct character” (p. 95). As the researcher thought about each horizon and its textural qualities, the researcher began to understand the experience through her own self-awareness and reflection (Moerer-Urdahl & Creswell, 2004).

Initially every significant statement was treated as possessing equal value. Then the researcher deleted those statements irrelevant to the topic and others that were repeated or overlapping. Reducing the amount of data by identifying common responses was an important part of the data analysis. Creswell (1998) refers to this method as a “sorting-out process” (p. 140). He states, “not all information is used in a qualitative study, and some may be discarded;” he describes this process as “winnowing the data” (p. 141).

The researcher grouped statements into what Creswell (1998) and Moustakas (1994) refer to as “meaning units.” The researcher arrived at these meanings by reading, rereading, and reflecting on the significant statements in the original transcriptions. After the statements, which included verbatim examples, were grouped into meaning units, the textual and structural descriptions of the experiences were then synthesized into a

composite description of the phenomenon. Moustakas (1994) notes that this description becomes the essential, invariant structure of ultimate “essence” which captures the meaning ascribed to the experience.

The researcher corroborated her data by using triangulation. In addition to the interviews, the researcher collected data from participant documents. The document summary form (see Appendix M) for each student’s personal document analysis (i.e., research paper, product, and portfolio) named or described the document, explained its importance, gave a brief summary of its contents, and included reflective commentary. Using the document summary forms, the researcher carried out the same analytical process she used in transcribing the interviews by extracting significant statements, phrases, and sentences that directly pertained to the investigated phenomenon from each description, and by eliminating statements that contained the same or nearly the same statements. Next, the researcher formulated meanings of each significant statement that were present in the original descriptions. The researcher arrived at these meanings by reading, rereading, and reflecting on the significant statements in the original field notes and document summary forms to get the meaning of the original context.

The formulated meanings were organized into clusters of themes (Creswell, 1998; Moustakas, 1994) that emerged from and were common to all the descriptions. The clusters were referred back to the original descriptions in order to validate them. Each cluster was examined to see if there was anything in the original transcription, notes, or document summary forms that were not accounted for in the cluster of themes, and

whether the cluster proposed something that was not in the original. These clusters were tied together to form a rich, thick description of the phenomenon; the textural description of what was experienced—what happened—including verbatim examples. Creswell (1998) notes rich, thick description allows the reader to make decisions regarding the ability to transfer information to other settings and to determine whether the findings can be transferred because of shared characteristics.

Next, the researcher reflected on her own description of the phenomenon (Creswell, 1998) and sought all possible meanings and divergent perspectives. Then she constructed a rich, thick description of how the phenomenon was experienced. The researcher constructed an account of each participant's experience of the phenomenon to follow her account. Next the researcher wrote an overall rich, thick description, or composite, of the meaning and the essence of the experience (Moerer-Urdahl & Creswell, 2004). For final validation, the researcher conducted member checks in which she returned to the students and asked them if the description formulated validated their original experiences.

Ethical Issues

Participants were asked to sign a consent form (see Appendix K) stating his or her willingness to participate in the study. If students were under age 18, the consent form required the parent's, guardian's, or legal representative's signature in order for the student to participate. This form indicated that the student's identity will remain confidential and that the information provided might be used in a professional report with

the use of pseudonyms to ensure confidentiality. Each student was advised of the nature of the study and why it was being conducted. Because participation in the study was voluntary, students had the option to stop the interview and stop participating if they felt uncomfortable answering any of the questions. Students were able to withdraw from the study at any time.

In addition, the researcher did not discuss anything that was told to her in private by one subject with another. The researcher used pseudonyms for the people about whom she was writing and changed the name of the school and adjusted other information that might tell a reader where and from whom she had been collecting data. As data were collected, they were stored in a secure location. All information in the study records was kept strictly confidential.

Significance of the Study

There has been growing concern that high schools are failing to adequately prepare all students for college or the workplace. In seeking solutions to this problem, the North Carolina State Board of Education is mandating as a graduation requirement the completion of a performance assessment or senior project that integrates schoolwork and real-world work. Education leaders believe that strengthening traditional high school courses is not enough to connect students to the world of work or higher education and see a need to associate the academic and the vocational disciplines at the secondary level to extend students' knowledge and skills in both areas (Hood, 2004).

Beginning with the 2006–07 school year, North Carolina high schools are

required to develop a worthwhile senior project program that is designed to provide significant support to students, school staff, parents, community members, and other stakeholders involved in the senior project. Students enrolled for the first time in the ninth grade in the 2006–07 school year are the first graduating class required by the state to complete a senior project in order to receive a high school diploma.

Few empirical investigations into planning and implementation strategies for senior projects have been conducted despite the growing body of theoretical work illuminating the importance of performance assessments. This void in the literature leaves educators with limited information with which to develop strategies to promote worthwhile senior project programs.

This study is intended to provide a beginning insight into planning and implementation strategies for senior project programs and to provide information on the experiences and conditions students need in order to help them successfully complete the senior project. As specified in the methodology section, the investigation targets current 12th graders enrolled in a North Carolina school that has had the senior project requirement in place for at least four years. The perceptions of the seniors of their experiences in the program are very important. Discussions with seniors who have completed the project are needed in order to determine the effectiveness of the program. Their perceptions were a major part of this study and may provide valuable information to teachers, educators, and promoters of performance assessments on ways to plan and implement the senior project in schools. Moreover, the study provides a methodological

template for investigating similar phenomena in populations beyond North Carolina schools.

Limitations of the Study

There are several limitations to this study. First of all, only students were interviewed for the research. The perceptions of teachers, principals, senior project advisors, and community members who served as mentors were not explored, so the data may be biased toward the views of the student participants. Additionally, it may be difficult to determine how accurate or true the information is that the interviewees provide. Nelson, Longstreth, Koepsell, Checkoway, and Van Belle (1994) note that unreliable data from respondents can seriously hamper the ability to obtain unbiased results.

The perceptions of teachers, principals, senior project advisors, and community members who served as mentors was not explored because it was the aim of this phenomenological study to investigate the phenomenon from the student's own perspective. The goal of the research was to determine the qualitative differences in the way students perceive and understand the senior project experience.

A second limitation was that the researcher is employed with the North Carolina Department of Public Instruction. Job responsibilities require the researcher to work with the implementation plan and other documents concerning the high school graduation requirements. Therefore, the researcher has insider knowledge about the senior project and the issues and concerns of stakeholders in the implementation of the exit standards

policy. As such, researcher bias may influence data analysis. Gay and Airasian (2003) note that the more involved the researcher is, the greater the degree of subjectivity is likely to creep into the interviews. On the other hand, the greater the involvement, the greater is the opportunity for acquiring in-depth understanding and rich data.

As for this study, the researcher made a strong effort to remain aware of the personal knowledge she has about the program. To guard against personal biases and to ensure that my role as an interviewer remained valid, she met at a school in which she had no affiliation and interviewed students from that school whom she had not met personally until the time of the interview. The interviews were conducted at the school in locations that were convenient to the students. This allowed for the best situation to provide honest responses and to offer a natural, unobtrusive, and nonthreatening setting for the students. To minimize bias in collecting interview data and to reduce observer omissions, interviews were tape-recorded. During the interview process, the researcher was able to set aside personal knowledge and biases and pay close attention to her role as an interviewer for the study. The researcher maintained confidentiality promised to the participants.

Finally, the study includes reliability and validity limitations that are typical of qualitative research. The study examines only the perceptions of students from a North Carolina high school. Therefore, it may be difficult to generalize results because the subjects all attended the same high school. However, to strengthen the validity, the researcher linked the study's findings to existing literature and used triangulation.

Different data sources were employed to confirm one another (Gay & Airasian, 2003).

Creswell (1998) notes that phenomenologists view verification and standards as largely related to the researcher's interpretation and do not place substantial emphasis on verification beyond the perspective of the researcher. Creswell (1998) explains that the validity of a phenomenological study refers to the notion that the researcher's idea is well-grounded and well-supported. To help ensure that the "the general structural description provides an accurate portrait of the common features and structural connections that are manifest in the examples collected" (p. 208), the researcher asked herself the following questions that Creswell (1998) recommends phenomenological researchers answer:

1. "Did the interviewer influence the contents of the subjects' descriptions in such a way that the descriptions do not truly reflect the subjects' actual experience?"
2. Is the transcription accurate, and does it convey the meaning of the oral presentation in the interview?"
3. In the analysis of the transcriptions, were there conclusions other than those offered by the researcher that could have been derived? Has the researcher identified these alternatives?"
4. Is it possible to go from the general structural description to the transcriptions and to account for the specific contents and connections in the original examples of the experience?"

5. Is the structural description situation specific, or does it hold in general for the experience in other situations?" (Creswell, 1998, p. 208).

Summary of Chapter III

The qualitative tradition of phenomenology was chosen as the theoretical framework for this study. Chapter III provides an overview of the research methodology. In-depth interviews and participant document analysis were the methods of qualitative data collection used to explore the research questions. This chapter provides procedures for data collection, data management, and data analysis. In addition, the chapter discusses the significance of the study and the ethical concerns associated with qualitative research. The chapter concludes with a discussion of the study's limitations and how the researcher addressed those issues.

The following chapter includes the study's major findings. It begins with the researcher's own description of the phenomenon followed by an account of each participant's experience. The chapter concludes with an overall description, or composite, of the meaning and essence of the senior project requirement.

CHAPTER IV

FINDINGS

Introduction

Chapter IV begins with background information about the North Carolina high school used in this study and an overview of that school's senior project graduation requirements. The background section is followed by the study's major findings. Since the qualitative tradition of phenomenology was used to conduct this study, the findings begin with a description of the researcher's perceptions of the phenomenon. Next, an account of each participant's experience follows. The chapter concludes with an overall description, or composite, of the meaning and essence of the senior project requirement.

Background

West High School is a magnet school in North Carolina that opened its doors for the first time 10 years ago. For the 2007–08 school year, West High School had a school enrollment of 1,866 students. Of these students, 995 were male and 871 were female. In the 12th grade, 478 students were enrolled. The ninth grade had the highest enrollment of 522 students, grade 10 had 445 students, and grade 11 had the least enrolled with a total of 421. The student population at West High is composed of Black or African American (65.9%), Caucasian (26.5%), Hispanic or Latino (3.4%), Asian (2.3%), Multiracial (1.9%), and American Indian (0.2%). Over one-fourth (26.2%) of the students attending the school are on free and/or reduced lunch (County Public School System Demographics, 2007).

As specified by PL 107-110 the *No Child Left Behind Act of 2001* and North Carolina State Board of Education policy QP-A-001, all persons teaching core academic subjects at the elementary, middle school, or high school levels must be “highly qualified” (North Carolina State Board of Education Policy Manual, 2006). The majority of classes (96%) offered at West High are taught by highly qualified teachers who hold a professional educator’s license. Of the 145 teachers at the school, 31% have completed an advanced college degree, including a master’s or doctoral degree. Of the staff, 19% are National Board Certified, and 40% of the teachers have 10 or more years of experience in the classroom, 31% have 4 to 10 years of experience, and 29% have 3 or less years of experience (County Public School System Demographics, 2007).

Since the school opened, students have been required to complete a graduation project in order to receive a diploma. “The purpose of the graduation project is to allow every graduating senior to exhibit the skills and knowledge that he or she has gained in high school. The project is designed to incorporate the skills that students will need as they matriculate into college and/or business and industry. It allows each student to choose a topic of his or her interest, while encouraging inquiry, analysis, synthesis, rigor, and collaboration” (Graduation Project Handbook, 2007, p. 1).

All students get assistance with the project requirements through their 11th- and 12 th-grade English classes, their project advisor, and the graduation project coordinator. Students begin some of the project in the 11th grade and complete the requirements in the senior year. The graduation project involves three components or steps.

The first step is to conduct research on a topic. In their junior year, students are given suggestions and guidelines for selecting a topic (see Appendix N). The research topic should be one the student is interested in but not one in which the student is already an expert. Students are to select meaningful topics that allow them to explore “new ground” and expand beyond their current knowledge base so as to gain a deeper understanding of the subject matter. Topics often include careers that students are interested in pursuing after graduation. Some of the general categories and suggested topics that West High uses to guide student choices include

- (1) fine and performing arts (e.g., music, dance);
- (2) health and physical fitness (e.g., steroids, diet);
- (3) business (e.g., entrepreneurship, advertising);
- (4) travel (e.g., vacations, explorations);
- (5) careers (e.g., schooling, job-market research);
- (6) social issues (e.g., poverty, education);
- (7) photography/film (e.g., movie making, black and white photography);
- (8) math/science (e.g., automation, robotics);
- (9) literature/writing (e.g., writing a novel, contemporary writer);
- (10) sports/recreation (e.g., scuba diving, effects of Title IX);
- (11) home economics (e.g., trends in diet/cooking, interior design);
- (12) technical arts (e.g., cabinetry, metal products);
- (13) education (e.g., achievement gap, funding);

- (14) visual arts (e.g., digital art, stained glass);
- (15) religion/philosophy (e.g., existentialism, religions and war);
- (16) specialized hobbies (e.g., coins, car restoration);
- (17) space (e.g., exploration, space stations);
- (18) social studies (e.g., historical study, rescue missions);
- (19) nature/ecology (e.g., global warming, habitats); and
- (20) other ideas (*Graduation Project Handbook*, 2007).

After students select their topics, they give them to their English teachers. The teachers help students refine their topics for approval by the Graduation Project Committee. The Committee rarely denies students from working on their selected topics, but members may ask students to improve them or make some changes before they begin their research.

Once topics are approved by the Graduation Project Committee, students develop an essential question on their topic. The students research their topic for the purpose of answering the essential question and then write a paper detailing the results of their research.

In their senior year, students revise and finalize their 11th-grade paper. The length of the final paper is between five to seven pages. Length is subject to the student's senior English course level (i.e., Academic English, Honors English, or AP English)² and the

² The students interviewed for this research in Academic English were required to write a 5- to 7-page paper; students in Honors English and Advanced Placement (AP) English were required to write an 8- to 10-page paper.

teacher's discretion. The paper must include a minimum of seven sources from three different mediums (e.g., newspapers, online scholarly sites and databases, interviews, reference books, scholarly journals, maps, etc.) and must follow the Modern Language Association's (MLA) guidelines (*Graduation Project Handbook*, 2007). When the final paper is submitted to the English teacher, a completed Student Checklist for Research Paper (see Appendix O) must be attached. The research paper is scored by the English teacher using a scoring rubric (see Appendix P). Students have to successfully pass the research paper before they continue to the next step of the project.

Before discussing the second step, there are other project requirements that occur during the first few weeks of senior English. First of all, before work begins on the final research paper, students are given an outline of graduation project assignment due dates (see Appendix Q). The outline provides a table for students to record due dates determined by the teacher for components of the paper and to record the point value for the given assignments. It also includes space to record due dates and point values for the presentation and the total project.

The first due date requires students to complete and submit to their senior English teacher a graduation project proposal (see Appendix R). The graduation project proposal informs the teacher of what students plan to do for their project. The proposal asks students to describe their research and the essential question to be answered as a result of the research findings. It asks students to describe their product, explain how the product relates to the research, and list the main points they plan to cover in their presentation.

Students include in the proposal any limitations they foresee with their choice of topic and record the types of questions they anticipate the judges may ask. The senior English teacher must approve the graduation project proposals before students can continue with their projects.

While writing the proposal, students also complete a mentor verification form (see Appendix S). Using the form, students either select a mentor from the school or the community to assist in the completion of the graduation project, or they waive their option to have a mentor. Four years ago, the graduation project coordinators recognized a few instances whereby mentors proved unnecessary for some of the topics that students chose. Therefore, the Graduation Project Committee revised its policy and made the mentor requirement optional for seniors.

Mentors are supposed to assist students with finding research documents to support and answer their essential question and to help students create a product that is a concrete example of the results of the research. Students at West High are strongly encouraged to employ a mentor if applicable to their research. A mentor should be at least 21 years of age or older and have, if not expertise, at least vast experience concerning the student's topic. This may include a college degree, business ownership, employment in the area, or hands-on training. The mentor is not to be a member of the student's family except by special approval from the Graduation Project Committee. The mentor must agree to consult with the student a minimum of five times during the course of the student's research (*Graduation Project Handbook*, 2007). If students elect to not

have a mentor, they must sign a “Waiver of Mentor,” which is located on the mentor verification form (see Appendix S).

Before students could begin work with a mentor, each mentor had to be approved by the Graduation Project Committee. To acquire approval, students submitted to their English teacher a cover letter addressed to the principal (see Appendix T) and the mentor verification form. The cover letter described the project and included the name and qualifications of the mentor or justification why a mentor was not selected. The senior English teacher forwarded these materials to the proper individuals for approval and recording. A member of the Graduation Project Committee contacted all mentors personally to verify the mentor’s expertise. Once mentors and paperwork were approved and in place, the student had to complete each part of the research process.

During the second step of the project, with the assistance of the mentor, the project advisor, and the English teacher, seniors develop a product based on their research. The product must show evidence of at least 15 hours of work. Students document on a product log (see Appendix U) the time they spent completing the product. The product log records each date and amount of time the student worked and describes the work effort. Product logs may document students’ time spent volunteering, teaching a class, or giving a presentation or time making materials such as scrapbooks, brochures, models, poems, or short stories. The documentation may also include the time students spent buying or gathering supplies to make the product. If students work with a mentor on any of the dates listed on the product log, the mentor verifies the work by initialing

next to the date(s) on the product log.

Students who work with a mentor during this phase of the project must also keep a mentor contact log (see Appendix V). Similar to the product log, students record the dates and times spent working with their mentor and describe the issues that were addressed in the meetings and any decisions that were made. Mentors initial the forms to verify the meetings. The mentor log and the product log are kept by students in a portfolio.

Students are responsible for maintaining a portfolio that is submitted to the judges on presentation day. In addition to the aforementioned mentor and product logs, the portfolio must also contain the mentor verification form, the cover letter to the principal, and a clean copy of the final research paper. All five items are placed in the portfolio and given to the judges on the day of the student's presentation.

The presentation is the third and final step of the graduation project. After submitting and passing the research paper, each student presents his or her findings to a panel of judges that usually consists of two people from the school and one person from the community. Often the judges are people the students do not know.

The judges not only rate the presentation, but they also evaluate if students are dressed in an appropriate manner. Prior to the presentation, students are coached by their teachers to dress professionally. Girls should wear dress pants or a skirt, heels or nice flats; boys should wear a dress shirt, button-up or polo, and khakis or black pants. No jeans are allowed unless it has to do with the senior project. Costumes may be worn if

they are directly related to the project.

The day before the presentation, every student is given a time to present and a room number from their English teacher. Presentations are held following the instructional day from 3:00 p.m. until 6:00 p.m. in various classrooms throughout the school. On presentation day, seniors report to the library to wait until they are called to present.

Students are given in advance a final checklist for the presentation (see Appendix W). The presentation should answer the essential research question by using the final paper and the research found on the topic. It should last 10 minutes and employ the use of PowerPoint slides.

PowerPoint presentations should contain between 10 and 15 slides and maintain a unified effect. Each slide should have a limited number of words, somewhere close to 20 words per slide. No sound effects, fades, or animation is allowed. On the first slide, students must have their name, their senior English teacher's name, and the name of their mentor, if applicable. Slide two should present the essential question. The body slides of the presentation should provide an overview of the student's research paper. Appropriate graphs and pictures may be included in the body. The last slide should contain the answer to the essential question.

At the end of the 10-minute presentation, the judges ask the student questions about his or her topic and product. Once the panel ends the questioning, they complete a rubric set for the presentation (see Appendix X) and the product (see Appendix Y). All

aspects of the graduation project are judged using a rubric scoring system (copies of the scoring rubrics are provided to students prior to the presentation through their English teachers). Students may receive one of three ratings: Exemplary, Satisfactory, or Resubmission Necessary. Any Resubmission Necessary rating means that the student must revisit or redo the area or areas that he or she did not pass and then present the project again at a later date.

After the judges have completed the ratings sheets, the Graduation Project Committee reviews the student's scores, peruses the feedback from the judges, and makes a recommendation to the principal that the student successfully passed or did not pass the graduation project. Based on the recommendations of the Graduation Project Committee, the principal makes the final decision whether the senior successfully met the requirements of the graduation project. Students are notified the day after their presentation of their scores by a letter (see Appendix Z) from the Graduation Project Committee.

A final assignment for students who successfully complete the graduation project is to write a one- to two-page reflection on the project. The reflection is to address the challenges and successes that students encountered during the research process and to provide feedback on the program to teachers and the Graduation Project Committee.

Researcher's Perceptions

Reflection is a process of examining and interpreting experience to gain new understanding. It was important at the start of this study for the researcher to write a

reflection on her personal experiences with project-based learning. Qualitative methodology suggests that one of the first steps in phenomenological studies is for researchers to set aside prejudgments, as much as possible, and begin with a full description of their own experiences with the phenomenon (Moustakas, 1994). Moustakas (1994) suggests that phenomenological researchers take “no position whatsoever . . . [and that] nothing is determined in advance” (p.84). Researchers should remain present and focused on their own consciousness “by returning to whatever is there in . . . memory, perception, judgment, feeling, whatever is actually there” (p. 84). In other words, the researcher wrote a reflection on her personal experiences with project-based learning at the start of the study so that she could set aside, or bracket, her views of the phenomenon and focus on those views reported by the participants. The reflection should help readers understand the researcher’s position and any biases or assumptions that impact the inquiry (Creswell, 1998).

It has been 39 years since the researcher was a high school senior, and the researcher was never required to do a project that determined if she would graduate from high school. However, the researcher remembers many high school projects. These projects usually involved writing a short research paper and creating some type of product, such as a painting, a model of some sort, or a three-dimensional display. The projects were almost always presented to the class, and grades were given on the written paper, the oral presentation, and on the effort that went into the product. The researcher enjoyed making the products; she had an interest in art and was very creative. What the

researcher was most uncomfortable with was presenting the work to the class. Although the researcher was well-prepared with subject-matter knowledge, speaking in front of a group of peers made her feel nervous and uncomfortable.

The researcher enjoyed doing the research and writing the papers when topics were of interest to her; but she disliked doing research on teacher-assigned topics that she viewed as boring or lacking merit. Finding information and note-taking were time consuming, probably more so than today, because computers and the Internet were not available. Research required using 3" x 5" index cards to record information to cite in papers. Every time the researcher located a source that may be useful to the research, she had to record all the publishing information on a note card. Then on the front of other cards (the side with lines), she recorded general ideas and summaries of main points and paraphrases of key material from that source that she thought might be useful. Any quotations were put on a separate card, copied word for word, and enclosed in quotation marks. The first word from her citation (the author's last name) and the page number where she found the information always had to be written on the front of each note card in the upper left corner. For each source that had information that may be beneficial to the paper, the process was repeated.

Organizing the stacks and stacks of note cards, grouping them into themes, and recognizing similarities and differences in the information from all the various sources, often made writing a quality paper a challenge. Probably the most difficult part of the paper was writing the introduction. Once the introduction was written, the body and

conclusion usually fell into place.

The researcher cannot recall any “writing” classes being taken in high school. All teachers were teachers of writing. Papers were written in English class, but they were also required in history, social studies, and science classes, as well. On tests, class assignments, or homework, students were required to write their responses in complete sentences or in paragraphs; teachers provided feedback on content, grammar, usage, and mechanics.

The researcher’s teachers provided rubrics for assigned papers, products, and presentations that helped guide the work that was required. In addition, most of the teachers were approachable and readily offered any help needed after class. The researcher thought ample time was usually allowed to complete the work.

Although the oral presentations were uncomfortable for the researcher personally, she thought they helped increase her self confidence. The feedback on her work from teachers and peers was always constructive and helped her improve her writing and presentation skills.

While the researcher did not have to write a paper or complete a project that determined if she would graduate from high school, she did have school experiences with project-based learning. It was important for her to write this reflection on her personal experiences so that she could set aside, or bracket, her views or preconceptions of the phenomenon and focus on those views reported by the participants to get reliable and accurate data. What follows are the 10 students’ perceptions of the graduation project

requirements at West High School.

Student Perceptions

The Graduation Project Coordinator at West High School selected the five male and five female students interviewed for this research study. Of the students, six were African American, three were Caucasian, and one was Vietnamese American. All of the students were following the College/University Preparation Course of Study, which meets the highest level of academic standards and fulfills the minimum course requirements for admission to UNC Institutions (County Public School System, 2007). However, the 10 students were enrolled in different levels of senior English. Three students were in Academic, five were in Honors, and two were in Advanced Placement (AP) English courses.³ Since students at West High receive assistance with the project requirements through their English classes and the length of the final paper is subject to course level and teacher discretion, it is important to have an understanding of the Academic, Honors, and AP English course requirements.

Academic English is designed for students who aspire to post-secondary education or vocational experience. Writing instruction at this level focuses on mechanical correctness, fluency, and structure. The student is expected to function at grade level in communication and thinking skills. Honors English is designed to challenge the academically advanced/gifted, highly motivated student. It concentrates on

³ Occupational English is available for a small group of students with disabilities who need a greatly modified curriculum that focuses on post-school employment and independent living. These students follow the Occupational Course of Study and have an Individualize Education Program (IEP). They are not required to pass an exit exam (i.e., graduation project) and therefore, were not included in this study. Only students in Academic, Honors, and Advanced Placement English courses are required to complete the graduation project at West High School.

developing reading, writing, and critical-thinking skills through intensive study and appropriate oral and written responses. AP English is a college-level course that meets the needs of academically gifted or highly motivated advanced students who hope to bypass introductory courses in composition and literature when they enter college. Students in AP courses are given assignments and instruction paced at the college level (County Public System, 2007).

The purpose of this phenomenological research study is to understand what seniors perceive as essential for the senior project experience to be a worthwhile graduation requirement. The objective of this study was to address the following research questions:

- From the student perspective, what is the essential structure of worthwhile senior project programs?
- What is difficult or easy about the senior project?
- What does the senior project do for students?
- What does the senior project not do for students?
- What, if anything, do students learn from doing the senior project?

To examine students' perceptions pertaining to the senior project graduation requirement, the researcher conducted a series of one-hour in-depth interviews with each of the ten participants. Document analysis was also used in connection with, or in support of, the interviews. To gain a fuller understanding of the phenomena, the researcher examined the research paper, the portfolio, and the product that each student produced for

the senior project. In the following sections, the voices of each of the student informants regarding their perceptions of the senior project graduation requirement are reported. The results are grouped according to students' English course placement. Advanced Placement (AP) students are reported first, Honors English students are reported second, and Academic English students are reported last. The chapter concludes with an overall description, or composite, of the findings.

Advanced Placement (AP) English Students' Perceptions

Andrew

Andrew, who successfully passed the graduation project, is an 18-year-old African American male senior in AP English at West High. He has attended the school since the ninth grade and has a 4.75 overall GPA. Andrew describes himself as “an exception to the rule” and being a “pretty academically motivated student” who “definitely has high aspirations for higher education.” He said that he “stays involved in a couple of different organizations like National Honor Society, some service clubs, and some other groups outside of school.” He “loves to learn and to help people” and gave an example of how he “chose to study French instead of Spanish mainly because French is used as one of the primary languages in Africa.” He wants to “go to Africa and do some kind of humanitarian work at some point.”

During the time Andrew was working on his graduation project, he was experiencing turmoil within his family. The researcher was informed that prior to his 18th birthday, Andrew was homeless and arrangements were being made to find a new

residence for him when he turned 18. The researcher was not able to interview Andrew until he turned 18 and no longer needed parental permission to participate in this study.

The essential research question for Andrew's paper was "in what way can the United States move towards the expansion of untraditional forms of transportation, and how would this facilitate the reduction of its dependence on fossil fuels?" For the purpose of the project, he "focused on magnetically levitating trains." He said he has "always been interested in applications of scientific and technological advancements," and in his freshman year he "read about maglev trains." He knew he had to do a graduation project and thought he could "probably use this topic to begin planning" even though he "didn't have an essential question or have a paper or product idea, but did have a general idea."

He emphasized that his paper was "part of a multifaceted solution to a pretty big problem—the United States' dependence on foreign oil and other forms of oil like coal." He elaborated on why this was an important topic for him to research.

It's an important topic for me because global warming and dependence on fossil fuels, I believe, are two important issues that relate to our nation's future. I'm not exactly sure how much oil there is left—either domestic or foreign oil. Obviously, it is not unlimited because oil is created through the process of fossilization, and that takes millions of years. And since no more oil is being made, and we are using up everything that there is, eventually it is going to have to go to zero. So, really I think that you need to get in the mind-set of how we are going to wean ourselves from fossil fuels. And this would help to do so. As far as the global

warming issue, now is the chance to use direct emissions because they run on electricity, and they make it very easy to find alternative sources of fuel in order to power it—the trains. Because you can pretty much use any fuel source to power it to run the maglev system. So that's pretty important. Hopefully, we will see it done in a timely manner, but realistically it probably won't happen any time soon.

Andrew said he enjoyed doing the research on this topic, which made writing the research paper the easiest part of the project. He remarked:

This was a topic that I was already interested in. I had very strong convictions about what I was writing, and also, I was able to find a lot of information on the topic. From my research, I have learned that not many people know what maglev trains are. It was an interesting topic. I think that made it a lot easier.

Andrew successfully passed his research paper with a 98 (A).

Making the product was more difficult for Andrew than writing the research paper. He commented that the product “has to make a very strong connection as to how this helps answer your essential research question and show people or get people involved in it.” Andrew recalled:

The easiest part was designing it; the process of putting it together, that was the hardest part. I did a physical model of maglev, how it interrelates with the current existing transportation infrastructure. So I basically built my own—like a train station with a roadway, and I also did a lot of sketches and blueprints, that kind of

stuff. It was pretty simple. I just used card stock and paint, glue. It took about twice the amount of time I expected it to take, but it was sufficient, even with limited supplies. Because I really didn't have, I mean I have limited skills. I couldn't make it out of wood or clay or anything like that because of limited supplies and skill level also. I don't know how to carve wood or anything like that.

From his work on the product, Andrew learned "time management is an important thing; you learn that you have to pace yourself." He supports this idea by saying:

I really did plan to do it a lot earlier than I did. But then things came up, and then I had to—I don't want to say pull an 11th hour, but I spent a whole bunch of time in a short period of time—like within one week I had to do the majority of the work for it. I had some issues come up with me getting supplies to build it and all this other stuff that came up that I didn't expect. So for future reference, I will make sure not to procrastinate and make sure that I find the time to do stuff for college when it comes up. That is something important that I learned.

When Andrew was asked who the people were that helped him the most with his project, he replied:

That's a pretty tough question for me to answer because I pretty much did it, the majority of the project autonomously. I did have some help from my junior year English teacher when we were doing the rough draft for the paper, but other than that, I didn't really have help. The senior year English teacher didn't really help at

all. I was pretty much on my own. She gave me input like, ‘I think this is a good idea, and you need to come up with a product idea.’ The product, you know, I had no help for that.

Because Andrew had limited help, he guesses that he is “an exception to the rule” for doing as well as he did. But he believes other students would not do as well.

Therefore, he suggests that senior project programs “have resources for the kids that are doing these projects.” He elaborated saying:

Mentor resources, or have people that can help out people who need help with the paper or presentation, product or whatever—cause I didn’t really have that much help, and I guess I am an exception to the rule, but the average person not having help, they would probably not do too well. So I am thinking that it is important to make sure they have resources available at the school, like people that can answer questions that students have and can help students come up with ideas, product ideas, or whatever. Or help sit down with them, go over the paper together, point out flaws, and strengths and weaknesses and kind of, you know, steer them on the path toward the success of the project. I think that is important to have in the program.

Andrew had “limited supplies” and “limited skills” for making his product and indicated that he was “stressed and worried that it was not up to the task ” particularly since it “was only made of cardboard and then painted.” Although he made sure that “the product was an extension of the research” he had done, he was concerned that the judges

may not see the connection. However, his fear about his product “was not fulfilled.” The judges “saw the connection and they thought it was an excellent project altogether.”

Andrew received exemplary marks from all the judges for his product and his presentation.

Andrew “definitely thinks” the senior project is a “good experience for students to do research and especially for people who are going to continue on to college or a university.” He added:

I think that was a good experience for me. Because, like I said, I think I found some very interesting information out when I was doing this project, and it is something that I would like to continue doing some more research on at a higher level.

Matthew

Matthew is a 17-year-old Caucasian male senior in AP English at West High School. He has attended the school since the ninth grade and is ranked ninth in his graduating class with a 4.77 overall GPA. He successfully completed the graduation project and describes himself as a “perfectionist” and “very, very passionate about learning.” At school he is president of the National Honor Society and is “very involved in a book club that [his] English teacher started last year to raise intellectual spirits.”

Outside of school, Matthew is active in Capital Area Teen Court work, which he said “was an outgrowth of [his] grad project.” Matthew explained:

Teen Court is a mock trial restorative justice program that provides a

sentencing option for first offender youths who commit a misdemeanor crime. If the offender admits guilt to the charge, he or she may choose to participate in teen court instead of going through traditional court proceedings.

Matthew's focus for the senior project was on "the impact of restorative justice on juvenile offenders." He is an advocate for restorative justice and believes:

Restorative justice causes offenders to admit their problems, to get involved in community service, and to acknowledge what they have done is wrong. The idea behind restorative justice is if offenders fulfill their obligations to the program, the misdemeanor crime will be expunged from their record.

Matthew acknowledges his involvement in the senior project has been beneficial and "has been a great opportunity to reach out and make some connections in the community." He added that the project benefited him "in terms of networking and also just to work on social skills, public speaking skills." He commented:

Had it not been for the graduation project, I would never have gotten involved in Teen Court. So, in terms of that, what it has brought to me since then, the Teen Court definitely was a focus when I applied for college; what I put down on my résumé; [my Teen Court mentor] wrote me a recommendation letter; it was a topic of an essay for a scholarship I applied to. So my involvement has been beneficial to me. And besides that, I like to learn. I like to get involved and get really, really head and shoulders deep into a topic and really explore.

Part of his senior project was a "recruitment effort for Teen Court to get more

kids involved and volunteering.” Through Teen Court, Matthew led some mock trial discussions and served as a “mentor for kids that signed up for training to be attorneys or just to see what Teen Court was all about.” He thinks Teen Court “is doing a lot of good for people in the community” and even though he is finished with the senior project, he feels “some obligation to continue working with the program.” He explained, “Since my graduation project, I’ve been even more involved in Teen Court than I was actually during the course with my grad project. So it’s been a volunteer effort I’ve continued since that point.”

Overall, Matthew believes the senior project requirements for AP English students at West High are “relatively easy” and that the “challenge was not there as much as [he] would have liked.” Although Matthew received an A on his senior paper, he suggests AP English students should have a “longer paper requirement” and “more time” allotted for the presentation. He explained the senior project was “supposed to be the biggest project you worked on to this point in your scholastic career,” and students should be able to “present for 30 to 40 minutes on the topic instead of trying to cram” the presentation into 10 minutes. Regardless of the time restraints, he added when students present to the judges it is “nice for once to be recognized for an interest in learning and being really passionate about a topic.”

Matthew added that not all students agree the senior project is easy. He feels “Academic English students, who are the average and low-level achievers, struggle with the project requirements” and for them it is a “serious challenge.” He argues:

Academic . . . seem to struggle more with it in part because I think there is no academic support throughout the educational system in that standards are lowered a little bit. Not as much time is spent helping them read and write, which is not a huge problem at lower levels, but all of a sudden your senior year you are expected to crank out a five-page paper. Even double-spaced, the most you've ever done is a couple lines . . . that is a challenge. Since writing is what they focus on first, they hit this block and then they realize . . . "Well, I can't do the writing. Why should I even bother with this project?" . . . This is something they are not used to and they struggle with.

Since writing the research paper is what the project "focuses on first," Matthew says these students "feel they have hit a block, realize they cannot write, and wonder why they should even bother with the project."

Matthew spent "several class periods tutoring Academic students" on their senior projects. He tutored "juniors who were doing research and writing their papers" and "seniors who failed their senior project the first time." Based on this experience, Matthew asserts Academic students "need various levels of support to get through the senior project." He suggests senior project programs should have peer mentors. Schools should "encourage successful seniors to help struggling students" with their projects after school or during class time.

*Honors English Students' Perceptions**Ava*

Ava, a 17-year-old Vietnamese American female, is a senior in Honors English at West High School. She has attended the school since ninth grade and sees herself as a “good student” but one who tends to procrastinate. She has a 3.7 overall GPA and is active in several clubs at school. Next year she will go to a local university, where she hopes to pursue a career in medicine. Even though she is thinking of pre-med in college, she said that “too many senior projects were already done on medicine or disease,” and she wanted to make her senior project “personal and unique,” something that “wasn’t overdone.” Therefore, she explored how “Asian visual arts are a reflection of the political and cultural events of Southeast Asia during the 20th century.” She said this topic was “meaningful” and of interest to her because of her heritage.

Ava successfully passed the senior project. She received a 97 (A) on her senior research paper, and all three judges rated her exemplary on her presentation and her product. She reported that the senior project was “not difficult” and somewhat “overrated.” She believed that “teachers made it seem harder or more important than what it was. Teachers stressed the importance to do a good job and that you needed it in order to graduate.” Ava added that “if you follow the steps that are laid out by your teachers, it is no big deal.”

Ava noted that the senior project was “extremely nerve-racking and time consuming.” She said that writing the paper, making a product, and creating a

PowerPoint presentation were the “easy parts” of the project, but having to present was probably the “biggest obstacle” she had. She commented, “I am not a public speaker type of person, and I tend to rush and speed up when I am nervous.” Her biggest worry for the presentation was that the “judges would not think that enough time was spent on the product.”

Ava’s product was a painting of a bonsai tree whose limbs contained photo-transfer images of political and cultural events of Southeast Asia during the 20th century. She explained that her project advisor gave her “guidance on how to document” the 15 hours required for the product. With help from her advisor, she created an in-depth product log that outlined step by step the procedures and time it took to create the finished painting. Therefore, she was able to “show documentation” and “carefully and thoroughly explain to the judges” the procedures she took to accomplish the product.

When asked what she thought the senior project did for her, Ava replied, “I believe the paper I wrote for the project was the best paper I have ever written.” She stated that doing the research and writing the paper provided skills she will “be able to use in college.” She credits having “good English teachers in both the junior and senior years” for her success in writing the paper.

Daniel

Daniel is an 18-year-old African American male senior in Honors English at West High. He has attended the school since the ninth grade and has a 3.0 overall GPA. He describes himself as an “above average” student who usually gets “As and Bs” on his

report card, but sometimes his grades “fall in the C or D range.” He has had a part-time job since he was 16 and has “never been big on any clubs” at the school, but he did “play football for four years.” Daniel successfully passed the senior project.

For his senior project, Daniel researched “the effects of music on teenagers.” He selected his topic because he “thought it was interesting” and “wanted to go into depth to see what music was doing to people, especially teenagers” since they “listen to more music than any other age group.” He became interested in this topic after hearing different stories that music can affect people’s actions and behavior, and it made him wonder “why does it do that?” He said that “people often say rap music is evil,” but in his research he “proved that it is not just rap. It is pop and rock and just about everything else out there.”

Daniel explained that the senior project is “the biggest project of your entire school career so far.” Because of that he “took every opportunity to get everything done that he needed to in his junior year.” He remarked that those “students who didn’t do that got behind, and if you fall behind, you stay behind.” He suggests future seniors that are required to do a senior project should “get ahead while you can.”

Daniel believes students at West High have plenty of opportunities to get ahead and receive “more than enough help in the junior year; it’s just according to if you take it.” He elaborates on this saying:

Actually [our junior English teacher] gave us a paper from a former student that she had, and she let us read over the paper, read her rough draft and her final

copy—you know just to give us a little incite into what we are going to have to do. I actually took good note of that. I really did look at it, because she got a great paper. She really knew what to do—like make sure punctuation was right and the right length and all that good stuff . . . They gave us a little book that gave other copies of examples of other people’s papers. Then we would write the paper and maybe share it to the class, or share it with other people . . . We did have seniors who, you know, when I was a junior and they were seniors, they came in the classroom and also helped us. They had already done their project and came and helped us if we needed help. That was my junior year. So they actually gave us more than enough help, it’s just according to if you take it. You know because you have the opportunity.

Because he “took opportunities to get things done” his junior year, Daniel thought “finishing the paper senior year was easy.” All that he had to do was make “some corrections and add a little length” and he was done. He successfully passed his senior paper with an 86 (B).

For Daniel, the product was the most difficult part of the senior project for two reasons. First, it was difficult just thinking of what to make. He explained:

When it comes to the product, the difficult thing to do was to actually think about what it was going to be. That was the hardest part. It was very hard. It has to be relevant to your paper and you have to spend at least 15 hours.

With help from his senior English teacher, he came up with the idea for his product.

He made a model of a brain from papier-mâché, plaster, and clay. First he took a balloon, blew it up, and covered it over with papier-mâché. Then he used plaster to make a mold of his face, which “took three nights to get the mold right.” When the mold was ready, he attached it to the papier-mâché balloon. Next, he painted the plaster face and added clay to the back of the balloon. On the clay he “drew out every single line—all the little lines you have in your brain.” In order for the model to stand on its own, he attached a neck base made from a can wrapped in Styrofoam.

To show relevance to his research paper, Daniel used the model in his presentation to explain how the brain is affected by music or sound. He explained the connection:

People may think they are just listening to the beat of a song, but one little part of your brain is saying . . . “I’m listening to the beat of the song” . . . but another little part of the brain is saying . . . “Hey, I’m over here, and I’m listening to the words of the song” . . .

A second reason why the product was difficult for Daniel was because he “put off making the product until two weeks before [he] actually had to present it.” He admitted that students have about “two or three months to work on it,” but he “put it off till late.” He told his circumstances:

Most of it was on your own, on your own time at home. Okay, while I’m at home, I have a job and everything, and I have my friend. So, when your friend comes over and says like . . . “Let’s go out” . . . It’s like, you give in. So, I gave in a lot,

you know. And I just kind of put it off to the side when I was at home. But then there were some nights when I would crack down on it. You know, I would stay up to 12:00 o'clock working on it. I had school six hours later, but I wanted to get it done. So, it's not I really wanted more time. I just felt like, you know, it was my fault. I kind of wish I put myself—put more time into the whole project.

Daniel believes completing the senior project was beneficial to him in a number of ways. He explained:

I believe it developed more people skills. How it developed my people skills was to be able to talk in front of an audience. I've always had a problem with that. I've always, you know, ever since I was little, I have been very shy, but now I have been outgoing with people . . . When I meet my friends' parents that I never met before, I can be very polite and use manners and everything. So, it raised my manners up, and I can give a talk in front of an audience clearly and properly . . . Also, my writing skills—I have always been kind of a strong writer. I have gotten like threes or fours on the writing tests. I've done really well on those. But with that paper, since it was such a long paper, and so much information you have to do, and so many requirements, it really helped me to apply myself for college. So, if I need to do another six-page paper in like two months, I could do it.

Daniel remarked that the student determines the outcome of the senior project.

The project “shows what kind of student you really are;” it shows “if you are hard-working or not.”

Emily

Emily has attended West High School since the ninth grade. She is a 17-year-old African American female senior in Honors English with a 2.6 overall GPA. She describes herself as “very involved in school activities. I do dance performance. I excel very well in the classes that I’m good at, and the classes that I’m not so good at, I keep trying until I can pass.” She successfully passed the senior project.

Emily became interested in her senior project topic through an African American elective social studies course she took at West High. At the beginning of the course, her teacher “brought up Willie Lynch” and said to “look him up” and find out about him because his life is “about us.” Emily decided to do just that, and after learning more about Willie Lynch, she “thought it was pretty interesting.” As a result, she chose to further her research and to develop her senior project on “how the Willie Lynch syndrome has been successful in separating the Black community.”

Emily explained that “Willie Lynch was a White slave owner from the West Indies.” According to her research, Virginia slave owners contacted Willie to find out ways to control their slaves. Emily recounted:

Willie told the Virginians that by killing slaves and lynching them they were losing their stock. He gave the owners a series of ways to keep the slaves under control so that they would not have to kill them. Fear, distrust, and envy were the key factors prescribed for keeping slaves. Willie said that his ideas would keep Africans enslaved for the next 300 years.

This topic was “both interesting and important” to Emily. It was interesting because she “didn’t know about it.” It was important because of her “Black heritage” and “because a lot of Willie’s theories connect to the way that things still are with Blacks today.” She explained that slaves were to be kept “ignorant . . . You didn’t teach them how to read and write.” She pointed out that “today you still see the effects of Willie’s influence. For example, mostly girls graduate from high school, but African American girls don’t graduate as much, and African American males are the least graduated percentage.”

Because of her interest in the topic, she was always “picking up many things” to read on the subject. She explained that she “likes English, likes writing,” and “reads a lot.” She added, “I have been accepted into college. . . . I plan to major in English.” Therefore, the easiest component of the senior project for Emily was writing the paper. Her final grade on the paper was a 90 (B).

“The hardest part was the presentation.” It was difficult for Emily because “there is a time limit,” and she had to “get everything that pertained to this into a 10-minute presentation.” The presentation was her “least favorite thing about the project.” She elaborated on this:

My least favorite thing about it is, it’s been a year leading yourself to one thing, and you have 10 minutes to give it to somebody and they say . . . “Oh, you did a great job” . . . or . . . “Oh, you did a bad job” . . . If you spend a year on something, usually you’ve done a good job. So that’s my least favorite part. You

have a year to give your all to one thing and 10 minutes determines if you will graduate from high school.

Because the presentation is a “pass or fail grade” that determines graduation, Emily insists that senior project programs should have “judges that know how to judge the projects” and “have guidelines that they have to follow.” She asserts “the judges have to know how to judge these projects because projects are different; people are different.”

Emily got help with her project from various people at school and from her family. Her mentor, who was also the teacher of the African American history class that got her interested in her research topic, “helped [her] the most.” He was able to “locate books [she] needed” for her paper, and he also helped her with one component of her product, “a black doll/white doll test.” Emily explained the test was first conducted “in the 1940s in the North and South by Kenneth Clark” and later “repeated in 2005 by Kerri Davis.” The test involves equal numbers of “Black and White children five to seven years of age” who are “shown two dolls that are identical except for color—one doll is black and one is white.” The children are asked several questions about the two dolls, such as “which doll is the good doll and why, which doll is the bad doll and why, and which doll would you rather play with.” Emily’s test results “matched those of Clark and Davis” whereby the majority of children preferred the white doll over the black doll.

Emily used a large, free-standing display board to share the test results in her presentation to the judges. The board included pictures of the children taking the test for her project; pictures of Clark and Davis, explanations of their earlier research, and their

individual test results. The board also displayed a table that presented a composite of the similar test results from Clark and Davis's and Emily's tests. During her presentation, she connected the findings of the black doll/white doll test to her research paper on Willie Lynch by showing that his idea "to keep the races separate and let Blacks know that they are not as good as Whites" is still prevalent today. Emily believes having a product and presentation requirement teaches students to go "above and beyond writing a paper to connect things in more than one way."

Emily's grandfather helped her with another component of her product. Together they built a wooden model that depicted a graphic "fear tactic that Willie Lynch used to keep slaves under control." The model consisted of a round board approximately two feet in diameter that had three pegged circular rings. The pegs in each ring were painted a different color to represent a particular group of slaves. The outer green ring consisted of only adult male slaves. The female slaves were in front of the males and were painted yellow. The ring closest to the center was painted blue and represented young males. Everyone standing in the rings had to face the center. In the center of the rings was a brown peg that depicted a slave who had each limb tied to one of four horses. Emily explained "on the master's cue the horses would be whipped and pull in different directions. It would actually take the limbs off, and almost always the slave never died immediately so the other slaves had to watch and know that they should not try to be free but to do what they were told."

The senior project taught Emily "things are not always going to be easy, and

you are going to have to do work and research.” From the project experience, she has learned “how to actually write a paper” that she can “give to [her] college professor and get a decent grade on it.” She believes that it is important that “teachers not scare their students off from completing the senior project.” She admits the project is “nerve-racking, but it is not that bad; there is nothing above your level that you cannot do. Students just have to commit.”

Ethan

Ethan is an 18-year-old African American male senior who is in Honors English at West High School. He has attended the school since the ninth grade, has a 3.0 overall GPA, and has successfully completed the graduation project. Ethan describes himself as an “organized person” who “has to stay on track” and “set goals out and always follow them.” He participates in “a leadership development group” that does “a lot of community service,” such as hosting “a big ball at the school that everyone at the school goes to.” He also plays varsity football and is captain of the track team.

For his senior project, Ethan chose to research “how performance-enhancing drugs affect the high school athlete physically and emotionally.” He explained his reason for choosing this topic:

I selected this topic because, as you can see, I am an athlete, but I am not the biggest athlete in the world. So, you always see your friends talking about different performance- enhancing drugs they use, and like you can tell the ones that use them. They act different. So, I just wanted to know the effects before I do

any thing. I wanted to know what I am getting myself into. That's why I chose to do it. So I could relate to it.

Prior to beginning his research, Ethan was interested in using performance enhancing drugs, but after he did all his research he remarked:

I decided just to use the God-given ability that I was blessed with. I really didn't want to use them no more. There's a lot of side effects behind this stuff. I just really didn't want to put my body through that.

He thought writing the paper "was the easy part of the project" because "the teacher planned it out and broke it into different parts so that it wasn't so time consuming." Although his grade was a 74 (D) on the scoring rubric for the first draft of his senior paper, Ethan worked to improve his grade to an 86 (B) for the final paper. For the first draft, his teacher's notes indicated he needed to add more research, to work on his conclusion, and to be sure his works-cited entries were formatted correctly. Ethan followed his teacher's instructions and added that the "MLA format books" available to his class "helped out a lot" in writing the paper and pulling up his grade.

When Ethan began his project, he believed the presentation was going to be the hardest part, but once he got into the presentation he found "it was not that hard." He clarified this:

It's kind of nervous when you first walk in because all these judges sitting there, and it like depends on you graduating or not. But the presentation really wasn't bad once you get to talking. If you practice real well, you'll get through it. You

have three judges—some people have four . . . My judges were real nice. They did ask me questions at the end . . . One lady, her son, he’s playing soccer, and he’s a freshman and a lot of his friends are talking about using creatine, and she was asking questions. And then one judge asked me how was my diet and all this kind of stuff. But it was real easy questions. It just felt like I was talking to a friend once I got used to them.

For his product, Ethan did a variety of things and documented his efforts in a scrapbook that he could present to the judges. He explained that “your scrapbook cannot be your product.” Your product has to be “something inside your scrapbook.” Ethan conducted interviews with “the store manager at GNC, with a football coach, and with an athletic director” at his school. He also wrote and conducted a survey, created a brochure, and taught a class at West High about performance-enhancing drugs. His scrapbook showcased these efforts through pictures of him teaching the class and conducting the interviews. It also contained a sample of the brochure he created, copies of the survey he distributed to students he taught, and copies of the three interviews and the participants’ responses. Ethan commented that “doing the product was easy,” but “it took a lot of time.”

The time he spent working on the product was recorded in his product log. Ethan confirmed that the product log was required; students had “to keep a time sheet” that documented “15 or more hours of outside classwork on the product.” He added that once students have met the time requirement, the product log is “signed off” by the senior

English teacher and “placed in your portfolio so that the judges can examine the product log to ensure it meets the 15 hours.” Ethan said it is important to “thoroughly document your time sheet because the judges actually read it.” He explained that “some people didn’t pass the project because the judges said their times really didn’t match up with the product that was presented.”

Ethan expected the senior project “to be harder than what it was.” He cites the reason for his fear originated from hearing teachers’ comments about the project. He explained:

I was expecting it to be harder than what it was because of the way the teachers talk about it. It was like if you don’t pass this, you are not going to graduate and things like that. They were always saying the judges are going to be doing this, going to be doing that.

Ethan remarked that once he actually got into the project, “it was easy,” but “it seemed like we did a lot of work for nothing. The project was so time consuming.” He had worked on it “for over two years” but was allowed only “a few minutes to present.” Ethan felt “doing all that work for a few minutes is kind of messed up.” He would have felt better if he had “a longer time to present.” He argued, “I just wanted to tell them more. I don’t think I got to tell them everything I learned.”

In addition to having a longer time to present, Ethan said he would recommend that senior project programs include a required writing class for ninth graders that would “help them write.” He also thinks a public speaking class would be beneficial. He

explained, “If I had classes like that, it would have helped me out a lot on my project.” Ethan believes that “every school should have to do a senior project” because “it will really help in college with public speaking and writing papers that professors give you.”

Josh

Josh is an 18-year-old Caucasian male student in Honors English at West High School. He has attended the school since the ninth grade and has a 3.5 overall GPA and successfully passed the graduation project. He sees himself as a good student and said with schoolwork, “I try to do as much as I can if I understand it, do all my homework and get it all done and out of the way.” In the afternoons following school, Josh works with the healthful living department’s physical education teachers, “helping injured athletes with rehabilitation so that they can participate in games as soon as possible.” In the summer of his junior year, Josh enlisted in the military and began basic training for the Army reserves.

Josh explained that it was his father’s parenting and Josh’s own actions as a middle school student that led him to select his topic for the senior project. Josh revealed:

As I was growing up, my father was pretty much a violent person and he was always treating me or my family, everybody bad. He was doing all types of illegal things and kind of when I started growing up I started seeing myself like he was . . . I got in trouble one time back in middle school. Well actually, I got kicked out of school, and just looking at it, I saw that my family was hurt by it. I had to go through all this process to get back into school, and it was a pain for not

only me but for my family. So, I just from that point on, I woke up the next day and was like, I'm going to make a change . . . Change turned me around, and now I actually want to become a police officer. I want to become a school resource officer and give back to schools and help kids not go the wrong way like my father did. Try to get them on the right level. This is my dream. I wanted to learn more about it, and I figured this was a chance to do it. Why not get a grade for it, too?

Josh's topic for the senior project was to discover "how school resource officers can help control school violence." When asked what he thought was the most difficult part of the project, he said that "most people would say the paper," but he "liked writing the paper" and stated that the presentation was the most difficult part. He used PowerPoint slides to present his work to the judges and remarked on why it was so hard:

If I sat down right now, I could probably redo my PowerPoint because I memorized it. You have to go back and forth on everything and make sure that everything is perfect—all your grammar—because you don't want something to be on the screen and there's an error in it and your judges notice it. Because that's the first thing they'll notice is an error. So that was pretty much the hardest part because it was the last week. You want to wait to the last week to put all your information that you have into your PowerPoint. It was the PowerPoint, plus I was getting nervous to step in front of people that I don't know to talk about something. I guess the nerves kind of attribute to the whole PowerPoint part.

Although Josh thinks that the presentation was the most difficult part of the project, he believes that by doing the project, he “got better in his presentation skills.” Not only did he present to a panel of judges who “determined whether he could move on to the next stage in life and graduate from high school,” but he also did presentations for his product requirement. He told about the first time he discussed his topic with a freshman class at the school:

I remember the first time I actually discussed with a class—a freshmen class, most of them. I was told that most of them were kind of always talking in class and misbehaving in class. After that presentation, the teacher came back to me and said that they have changed, that they actually sit down in class and talk now. And sometimes I even walk down the hallway and I see some of them, and they come up to me and talk to me. It was back way before Thanksgiving that I did it, and yesterday somebody stopped me in the hallway, and I didn’t even know who they were, and they said, ‘Nice presentation.’ So they still remember it. It actually got around to the healthful living department because I did it for another 9th grade class, which is a healthful living class that you have to pass for credit. I did it for one class of that, and I guess that teacher I did it with told his whole healthful living department. I actually had healthful living teachers come up to me after I did the presentation—after the grad projects were over—asking if I could come in with their class when they did the violence unit. I’m actually teaching a whole violence unit, about a week long on violence, in the healthful living department

class with one teacher that I have already set up in. I start next week or the week after.

Josh's product involved more than just teaching a class. He also created lesson plans, a student survey, and worksheets to accompany his teaching unit on violence. The survey and worksheets were distributed during his instruction. He explained:

I passed out surveys, worksheets, and everything, and when they were done filling them out and working on them, I actually collected them back and kept them. I just put them into a folder and kept all the handed-back work. I put them in a folder and kept it with me in case, you know, the judges ask . . . "Did you do any work with them?" . . . I had proof right there that shows them. . . "Yes, I sat down with them and did it" . . . I also have pictures of me working with the students, as well. I actually had the teacher in the class take pictures.

Josh made the judges a scrapbook of the pictures and his lesson plans, survey, and worksheets to use as documentation of the time and effort he spent on the product.

Besides the teacher who took pictures, one of the people that helped Josh the most with his senior project was his mentor, a counselor at his school. He confirms this:

I've sat down with her after school for hours just coming up with different ideas for my paper [and] for parts of my product that I needed help on. I didn't know how to make a worksheet. I didn't know what kind of questions to ask students that they'll take seriously and won't laugh about. So I had to sit down with her and come up with tons of questions to ask, tons of things to say. And there was a

part in my project, like a few days before we had to do presentations, I actually went and talked with her because I was nervous, and she actually got me to the point where she sat me down with my presentation. Actually, I redid my presentation over and over again with her to where she thought it was perfect. To where she thought I was able to go into the room and present. So she pretty much worked the nerves out of me. She told me to keep going over and over it again. She actually arranged for me to give my presentation in classrooms with different classes that I actually went in and actually did what I was going to do in the room for the presentation.

Josh had help with his project from his mentor, English teachers, the school resource officer, and others, but his hope in selecting his topic was to make connections with the local police department. In selecting his topic for the senior project, Josh thought he might qualify for an internship with the department because he “wanted to become a police officer.” Unfortunately the connection did not work out for Josh. He explained his disappointment:

Unfortunately it didn't work that way because you got to be a college student to have an internship with the [local] police department because [the city] is so big and they handle more situations than what the government thinks that high school students can handle. So, that was kind of a letdown because I was hoping on that and actually becoming good associates, I guess you'd say with people in the [local] police department. So that way when I take that step toward becoming a

police officer I'd already know people there. So I guess that was a whole part that didn't work out for me.

Regardless of his disappointment, Josh does think the senior project was beneficial to him. He remarked:

Most people have an interest in a career and they do research on it, and they find out all of a sudden I don't want to do that any more. But with the law for me, I learned about it. It taught me things, and I was like I really want to continue doing and learning about it.

Josh believes certain things are essential for senior project programs to be successful and to help ensure students stay involved with their project and want to "continue doing and learning." He suggests:

Eleventh- and 12th-grade English teachers have to know what the senior project is all about and have to know how to do it. The teachers should be able to answer any questions that a student may come up with or solve any problem that may arise with the student's project.

Josh also thinks students must "have time to do it." He explains that "some students work at a very fast pace that don't need time, but there are some students that work at a very slow pace . . . Everything they do is really slow." For these students, Josh recommends having "something after school where students can stay for help on the project." At his school . . . "students can stay after in the library, but there is no one to help them. Students are there alone and on their own." Josh suggests schools should offer

a “program after school just for seniors doing their projects where students can sit down in a room for assistance every day with a teacher.”

Josh understands that selecting the right topic for research is important. He advises upcoming seniors:

Choose a topic that you like . . . that you are interested in. That way you have motivation to actually work on it and do the best you can. If you know a lot about a topic, but you don’t really have an interest in it, you are not going to succeed more in that topic than in a topic that you don’t know about, but that you are interested in. So you want to choose a topic wisely.

Academic English Students’ Perceptions

Hannah

Hannah, a 17-year-old African American female senior, successfully completed the graduation project. She has attended West High School since the ninth grade and is in Academic English. Hannah has a 2.2 overall GPA and describes herself as a “very good student.” She explained that her GPA “suffered last year because my grandma died at the end of the semester when we were taking exams. So my grades just suffered for that whole semester basically, and it brought my GPA down.” She added:

I try to be happy with all my classes and all my teachers. I’m pretty pleasant . . . From freshman to junior year I was a football manager, so I was at football practice everyday and at all the games. I helped get equipment ready, and helped with injuries sometimes, and stuff like that. I have an internship during 4th period.

I go to the College of Veterinary Medicine. That's what I want to do. I want to be a veterinarian.

Her career aspirations and "love for animals" influenced her decision on the research topic for her senior project. Hannah explored "the effects of pet-facilitated therapy." She picked this topic because "I love animals, and I just want everyone else to know or to be aware of how animals can positively affect people." It was not difficult for her to select this topic because she "already knew what [she] wanted to do." She explained that she became aware of the senior project requirement in her freshman year; students were told they would "have to do it to graduate." So a topic was "just something [she] always thought about." She elaborated on this:

I picked a topic that I was interested in, and that is the main thing that you have to do. Don't pick a topic that you don't care about because you are married to it for two years. You are stuck with that topic junior and senior year, and you present it. If you are not up there enthusiastic about your product, your project, then you probably are not going to pass because that is a part of your presentation grade.

The presentation was easy for Hannah because she "knew what to expect." Two weeks before she had to present to the judges, her English teacher had Hannah's class do their presentations in the classroom. Hannah recalled, "We practiced and the teacher had us make notes for the presenters on what we did that was good, what was bad, and what we should do to change about our presentation." The notes also included things about "what we should say or not say and if we made good eye contact when we were

presenting.” Hannah believed “the notes helped a lot with [her] presentation.”

She remarked that “some people are stressed” about the presentation and thinks the stress comes from “teachers pounding it into your head that you have to pass.” She believes the stress “comes from knowing that it is a graduation requirement, and this one project determines whether you graduate or not.”

For Hannah the most difficult part of the project was completing the final research paper. She explained:

I wrote it junior year, and I basically thought that I had everything covered. But when I got to senior year, my English teacher said that it needed to be two pages longer. I was like . . . “What else do I say?” . . . And so, I had a hard time making it longer and elaborating on my topic.

Nonetheless, Hannah received “a lot of help” from her English teacher to get the paper the length it needed to be and earned a 96 (A) as the final grade.

Hannah revealed that completing the product was actually fun. For her product she “volunteered at a nursing home” where she “walked a dog named Chase” throughout the facility to “visit residents and give pet therapy.” She explained that with “some patients, Chase is the only visitor they ever get. So they are always happy to see him.” The only days that she actually “wasn’t walking Chase and bringing him to visit the patients were the days that [she] took pictures for [her] scrapbook.”

She used a scrapbook filled with photographs to document her volunteer work. She also kept a “running log of whenever [she] did anything at the nursing home.”

She mentioned:

I've been to the nursing home a total of about 14 times. I went over the course of three weeks, and I went during the week days and volunteered for like two hours. I don't think I documented every single time that I went because once I met my requirements, I just didn't document it any more because I didn't have to. I still go, I don't go as often as I did, but I still go occasionally.

All in all, Hannah thinks West High has a "successful senior project program" because it "gives students an incentive to work because you have to do it to graduate." She thinks teachers are "understanding and know how important the project is to the students and are willing to help." She believes doing the senior project:

opened up my eyes to a lot of things. Like I knew that pets made people happy, but seeing those people at that nursing home, they got so excited that they would clap and be jumping in their seats and wheelchairs and going all around me and excited just because the dog was walking into the room with them. It was really happy; it made me feel really happy because that's what they do for me.

From the senior project experience, Hannah "learned that pet therapy is very effective," and that "volunteering is fun and not as bad as some people make it seem." She also learned "how to write a paper, to do a bibliography, and to make a scrapbook."

Madison

Madison is a 17-year-old African American female senior in Academic English at West High School. She has attended the school since the ninth grade and has a 3.2 overall

GPA. Madison successfully passed the graduation project and considers herself an “average A–B, occasional C student” that has “a good relationship with most of [her] teachers.” She participates in various clubs at the school, is a cheerleader, and also does volunteer work through her church and with an outside organization where she tutors children. It was her volunteer work that gave her the idea for her senior project. She explains how she selected her topic and why:

I basically went with what I knew. I participate at my homeless ministry at my church, and every Sunday we feed breakfast—a full breakfast—to anybody that wants to come. Well, I knew that I didn’t see many children. So it got me thinking that I know there are children that are homeless. So where are they? Most of the time if we do get children, it’s not very many. It’s like two or three, and we can go for like months without seeing any children at all. So I just wanted to find more and why. I wanted more research into that topic. I find it very important because I know, I myself am very fortunate. But I know there are others who are not, and I would like to explore that territory because it seems like when you talk about homelessness you talk about adults, but the children, they don’t have a voice. So I would like to find out more about them . . . more research, in other words, and maybe even one day start up a program to help children.

For her graduation project topic, Madison conducted research on “the negative impact of homeless children on a child’s overall success.” She enjoyed learning more about this topic, but found the most difficult part of the project was writing the paper.

She commented:

My paper—I thought I had such a good paper my junior year, and I was excited, and I was ready, and then I took it to my senior teacher and she said it's like . . . “No, this is not it” . . . I liked it the way I wanted it, but it didn't meet the criteria of my senior teacher. So I had to go back and change it . . . So, you take out more stuff and you add more stuff, and then finally I just came to the conclusion that once I graduate, I'm just going to frame it. I was happy with it when I finished. I felt like I could have said more, but I didn't know how. I didn't have to do the paper over and over entirely. I just had to work on different bits and pieces and fix grammatical errors and such stuff like that, and adding more things. I think that's what really got me because you have to do more research and you have to explain so much in detail.

Madison passed the paper with an 85 (a B minus). After passing the paper, she continued her work on the remaining components of the project. She found the easiest part of the project was making the PowerPoint presentation. She explained why it was so easy:

The easy part to me was the PowerPoint because your PowerPoint is already laid out in your paper. You just have to pick and choose what you need to say and how you need to say it . . . So you only have maybe three or four bullets. They can't be complete sentences; they have to be specific points that you want to reach. You basically have to get up there and sell your project.

Making the product and keeping up with her portfolio were also easy for Madison. The main documents in the portfolio consisted of her junior paper and her final paper that were graded by her senior English teacher. She commented that the judges like to have both papers in the portfolio because they “want to see how you have grown.” Also in the portfolio was a product log that recorded the time she spent volunteering. Madison made a scrapbook of photographs with captions that documented her hours of volunteer work with children at her church and at the neighborhood organization where she tutors children after school.

Madison said the senior project did not affect her “in a negative way as it affects most.” She recalled how she felt when she was a sophomore and saw her senior friends dread the senior project:

I guess from being a sophomore and seeing my senior friends like truly dread the senior project, I really just thought it was this big monster that I could never tackle. But it didn't strike me as that. People make it hard on themselves. So, I guess the key thing to do is to not make it as hard on yourself.

Madison stated that when she began the project in her junior year, “it wasn't as bad” as her older friends made it out to be. She realized if “you follow the criteria of your teachers, if you do what they ask you to do and follow directions; it's really not that hard.”

Madison thinks “the project itself is really helpful” and that doing the senior project gave her “a dose of college.” She explained:

In college you have to write papers, and reports, and things; you basically are by yourself. You can't run to mamma or run to your teachers. You know they are there, but they can only do so much. It gave me a dose of college by teaching me to be independent.

When asked what she believes helps make senior project programs a worthwhile experience for students, she mentioned several factors. First of all, because of the paper component, Madison believes it is important for senior project programs to have "good English teachers" at grades 9 through 12 who are "really dedicated to teaching." She also thinks having a mentor is essential for student success. It was a good decision for Madison to select a mentor because her mentor knew "the most about homeless children and homelessness." She explained, "When I met [Roxanne] she knew all the information I needed. She told me boo- coo loads of information that I used in my paper." Furthermore, her mentor helped her make new contacts. She introduced Madison to "some people who put her on the right path to know other people." By working with a mentor, Madison "made new friends that [she] will keep in touch with after the project is over."

Samantha

Samantha is an 18-year-old Caucasian female senior. She has attended West High School since the ninth grade and has successfully completed the graduation project. She is an "A or B" student in Academic English and has a 2.8 overall GPA. Following graduation she plans to attend a technical college for two years and then transfer to a

university to complete her degree in elementary education. Her hope is to become a kindergarten teacher. Since the ninth grade, she has held a part-time job as a waitress. Her job working after school has limited her time for school clubs and organizations. She said she has time to “just work and go to school.”

An internship at an elementary school during her senior year prompted the idea for Samantha’s senior project. For her topic she researched “how the diversity of public school presents a better learning atmosphere than the home school.” This topic was not the topic she originally selected and wrote about for her first draft paper during her junior year.

Samantha explained:

Last year when I was a junior and they asked us to pick a topic, I picked something—I don’t even remember what I picked. I changed it when I got to senior year because I had an internship at [Rocky] Road Elementary, the same school I went to when I was little, and I was in kindergarten class. I had my journals and the pictures I had taken and stuff like that, and I just changed it. I decided I wanted to be a teacher probably the beginning of my senior year. I just changed my whole—I just flip-flopped everything I wanted to do, and I did it pretty much because of my internship. I had to tell my English teacher that whatever my junior topic was, I just didn’t want to do it any more.

Because she changed her topic her senior year, Samantha “pretty much had to start from scratch” and “do everything over.” The first thing she had to do was go to the

Graduation Project Committee and have the members approve her new topic. She had to explain to the Committee that she no longer wanted to do her junior year topic and would “have a much better project” if she could “do what she really wanted and liked to do.”

Samantha believed this new topic was important “because of her career choice.”

Samantha’s senior English teacher gave her class “a lot of time” to work on the project at school and also broke up the assignments to make them easier to complete.

Samantha reported:

I had plenty of class time. I got most of it done in class. The stuff I did out of class—pictures and scrap booking, and little stuff like that—but most of the paperwork and the papers, note cards [for the presentation], and the PowerPoint we did in school. Everyday, an hour and a half we worked on the grad project. She’d break it up for us. You know, like today you are going to work on your paper; tomorrow we’re going to work on note cards. We had library time. We went to the library a couple of times, computer time. She was really good at breaking it up.

Samantha indicated that her senior English teacher helped her most with the project. Her teacher not only broke up the assignments to make it easier and gave time to work on the project in class, but also brought in an AP English class to help students work on their projects. Samantha recalled:

They actually one day brought in an AP English class into our Academic class, and they helped me with my paper a whole lot—like sort out what to use and all. I

think they were still working on theirs, but they are so smart and so organized, and we really needed the help in our class. That was a really good idea.

Samantha credits the 95 (A) on her final paper to the help she received from her teacher and the AP English students.

The graduation project coordinator helped Samantha too, by answering questions and advising her that the “internship would be a very good idea” for the basis of her senior project. Samantha also had a mentor who was the classroom teacher at the school where she did her internship. Samantha spoke of her mentor:

She helped me when it came to stuff at school and like taking pictures. She always took time out to let me take their pictures and put up stuff—put up flyers and put up the brochures that I had. I had a few little questions for her about public school and to get the statistics and everything. She helped me a little like that, but not, not extraordinary help. She was there if I needed her. I was glad I had her. I liked having a mentor . . . because you know she was a teacher. Even if I didn't have a question to ask her, at least I knew that I could. I had her number, and I would always e-mail her and tell her how I was doing.

Samantha believes doing the senior project helped her decide on a teaching career. She revealed:

I think it really made me decide. It just made me decide that a teacher is what I really want to be. Because I was ‘iffy’ before I decided to do my internship and decided to do my grad project on it. But by the end of the semester, by the end of

the nine weeks, after working with the kids, I knew that I really wanted to do it. I really decided I want to be a teacher. I want to teach kindergarten.

When asked what was most difficult about of the graduation project, Samantha replied, “the presentation.” She asserts that it is the “most aggravating 15-minutes of your life,” but then countered, saying, “You get it done. It’s a lot better when you get in there and you see who your judges are.” She used a PowerPoint presentation and shared with the judges a meticulous scrapbook and large display board that documented her work interning at the elementary school.

Overall, Samantha thought completing the senior project was a positive experience. She declares:

It didn’t make my senior year bad. Like some people think that, you know, ‘Oh, God, the senior project, a big pain.’ I think it was very good. It was a positive thing. It took a lot of time, took a lot of work, a lot of effort, but overall it’s a positive thing, and I’m glad that we had to do something. You have to do something to show that you are capable of graduating, and I’m glad that we had to do it.

Composite Description of the Meaning and Essence of the Senior Project

Recognizing the senior project as a meaningful and worthwhile graduation requirement was not only reported by Samantha but was also noted by the other nine participants in this study. It was the purpose of this phenomenological research study to understand what seniors perceive as essential for the senior project experience to be a

worthwhile graduation requirement. What follows is a composite description, including verbatim examples, of what the students at West High School perceive as key to making the senior project a worthwhile graduation requirement.

The data revealed four major components, as shown in Figure 1, that students view as essential for making their senior project experience worthwhile. The findings

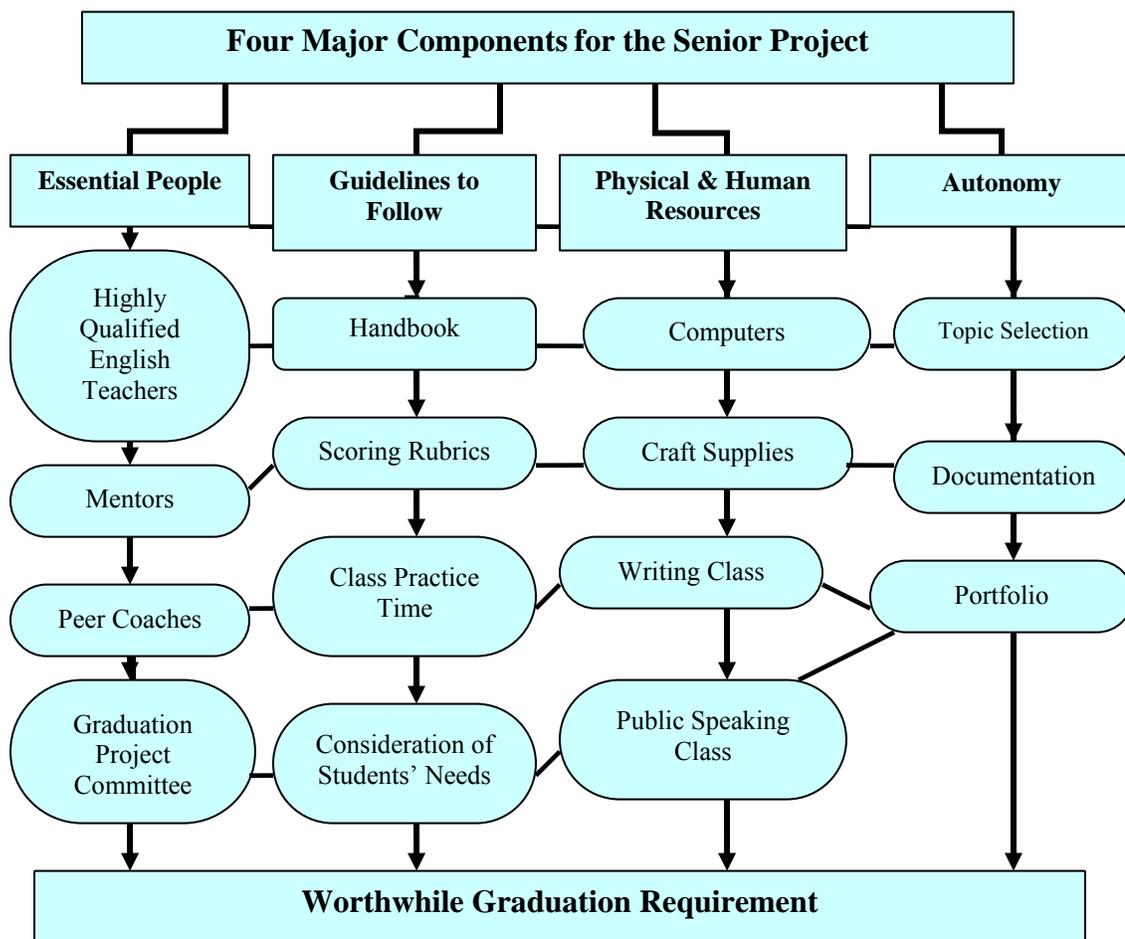


Figure 1. Seniors' perceptions of what is essential for making the senior project experience a worthwhile graduation requirement.

from analyzing the interview transcripts and the results from document reviews are presented in the order of these four major components.

Component One: Essential People

The first component consists of several key individuals or groups the students identified as providing the most help and guidance with the senior project. Students recognized their junior and senior English teachers, mentors, peer coaches, and the Graduation Project Committee as offering them the most assistance throughout the project.

Highly Qualified English Teachers

All participants remarked the people that helped them the most with the senior project were their junior and senior year English teachers. The students reported their English teachers helped guide them through the process of writing the research paper by planning everything out for them and breaking the assignments down into manageable parts.

Ethan explained that his English teacher gave “a lot of time to work on the paper in class” and also “gave out a lot of example papers” from former students who had completed the research paper in previous years. He added if he needed any help after school, his English teacher was “always there” for him.

Emily agreed that good English teachers “are available for after school help.” She stated “many teachers stay after school so that students have more than the allotted time

because 90-minute classes aren't enough to do the graduation project." Josh pointed out, however, that not all English teachers are available for help with the project after school hours but are needed to stay after school to provide assistance to those students who "work at a very slow pace."

Hannah found her English teachers were "very well-informed about the graduation project" and you could "ask them questions about it, and they could tell you what to expect." Josh thinks these characteristics are important and added:

Your 11th and 12th grade English teachers have to know what the project is about and what they are doing. They should be able to answer any questions that a student may come up with or any problem that may arise with the student's project.

Madison believes good English teachers are not only important in the junior and senior year, but they are also important to have in the 9th and 10th grade so that "they can teach you all the grammatical things, and then if you have that grounded, you can tackle the paper in the junior year with no problem." Madison explained:

If you have poor English teachers who just think of the papers as effort grades that really don't matter, then students are going to get thrown off, and they are going to end up with a big monster their senior year and are not going to be able to handle it.

Ethan contends that programs have to have "good English teachers" who "take writing seriously." He argues that "a lot of students really can't write that well" and

“English classes have to help people with writing.” Likewise, Matthew believes students need a strong background in writing by the time they enter their junior year. He conveyed that:

More writing needs to be done in the 9th and 10th grades. The junior and senior English teachers are the experts in how the grad project runs and how to administer it; they are the ones teaching the essay and everything else.

Hannah summed up the necessity of highly qualified English teachers by saying:

We need teachers who are willing to help you along the way because it is something that is really important—if you graduate. It decides whether you graduate. So I think we need teachers who are understanding, who know how important this project is to the students, and are willing to help.

This study suggests that good English teachers who are highly qualified and dedicated to teaching are essential for the senior project experience to be a worthwhile graduation requirement. Having good English teachers during the junior and senior years was viewed essential by all 10 of the seniors interviewed for this study. The students believe that good English teachers make the senior project experience worthwhile. But in addition to the English teachers, students also recognize mentors as important to the graduation project experience.

Mentors

Although the mentor requirement is optional for seniors at West High School, the majority of the participants (60%) chose a mentor and most believed (70%) that mentors

help make the senior project experience a worthwhile graduation requirement as shown in Table 2.1.

Table 2.1. *Mentor Summary*

Participant	English Course	Had a Mentor	Recommends Having Mentors
Andrew	AP	No	Yes
Matthew	AP	Yes	No
Ava	Honors	Yes	Yes
Daniel	Honors	No	No
Emily	Honors	Yes	Yes
Ethan	Honors	No	No
Josh	Honors	Yes	Yes
Hannah	Academic	No	Yes
Madison	Academic	Yes	Yes
Samantha	Academic	Yes	Yes

Mentors helped the students considerably in making decisions for work on their projects and often introduced them to other experts from the community. For example, Ava’s mentor, who is an art teacher at the school, helped her “narrow down the region and time period to explore into the Asian arts” and also helped her with the “most important aspect of her painting,” which was “how to do the photo-transfer onto canvas.”

Students commented that mentors had knowledge and expertise in their areas of interest, and by going out into the community and working with them, it opened doors and often led to meeting others in the community who could provide help or information for their products. Josh remarked that by doing the product “[you] get out with the community and interact and actually learn more about your topic.”

Madison’s mentor, who is a member of a youth help organization, “knew the most” about Madison’s topic of homelessness. She introduced Madison to others in the community who could help her with her product. Madison recalled:

You can meet some people who can put you on the right path to know other people. So like [my mentor] she introduced me to another guy, and he owns another organization. [She] put me on the right track to meeting people that I need, and they can introduce you to other people.

Hannah commented that her mentor was the manager of a nursing home and helped her while she volunteered there. Abby added the teacher who sponsored her internship “helped her when it came to stuff at school” and was “there if she needed her.” Matthew’s mentor was the Outreach Coordinator for Capital Area Teen Court, and he remarked she “definitely assisted” by giving him “the opportunity to get involved.” He added that having a mentor “kind of benefited me in terms of networking and also just to work on social skills and public speaking skills.”

Emily’s African American history teacher was her mentor, and he “helped her the most” with finding books and information on her topic. She believes having a mentor “is

a bonus” because you have “somebody that is interested in your topic and works in that field, and you get him to help you with your project.”

The mentors gave one-on-one time to students. Josh pointed out that his mentor, who was a counselor at the school, sat down with him “after school for hours just coming up with different ideas” for his paper and for parts of his product that he needed help on. His mentor also arranged times for him to give his presentation in classrooms at the school so that he would be well- prepared to present before the judges.

While seven students said it was good to have a mentor, others did not see the need. Daniel liked the fact that mentors were optional for students and remarked:

I wasn't a big fan of the whole mentor thing. I preferred not to have a mentor because I was like—I was thinking about going to Ms. Whiles, a psychology teacher, but I never had her as a student, and I knew that she was very busy. So I never really went to her. So I was like okay, I am doing this topic. So, I thought about everybody, and I was like okay . . . I was like I'll just do it myself. I said books and the Internet is all I need. I said yeah, I can get advice, but I wanted to prove to them that I can do this without having help from somebody else.

Although Matthew did have a mentor to help him with his project, he agrees with Daniel and thinks the school made a wise decision in letting mentors be optional for students. He argues:

They actually dropped the mentor requirements just because they recognize a lot of students at the school have a difficult time reaching out into the community

and finding networking possibilities and potential for adults who are an expert in the field you are interested in . . . I don't think a mentor should be a requirement. A mentor is nice to have, but if you make it a requirement, what happens is a lot of the students who don't have those contacts in the community wind up turning to their teachers and then the teachers feel those expectations. They feel obligated to continue focusing, making sure these kids that they mentor stay on track. That creates additional stress for teachers.

It is evident from the findings that most seniors perceive mentors as beneficial to students and essential for the senior project experience to be a worthwhile graduation requirement. Mentors provide one-on-one time for students and offer their expertise and knowledge in the students' areas of research, and they help students considerably in making decisions for work on their projects.

Besides mentors, peers also help with the senior project requirements and are recognized in the findings as a third essential group of people responsible for making the senior project experience a worthwhile graduation requirement.

Peer Assistance

In this study, six students view assistance from peers as essential for making the senior project a worthwhile graduation requirement. Matthew was a peer coach and assisted students with their project during class time and after school. He said he "spent several class periods tutoring students, either junior level or seniors who failed their grad project the first time, helping them to get their essays on track." He also worked with

two juniors on their graduation projects and helped them secure a grant. He elaborates on this:

There was potential to apply for a grant in the environmental science department with Chapel Hill. I wanted to see if we could in fact receive some funding—some assistance from this grant. So I went ahead and found some kids whose grad project topic matched with what the grant was looking for and helped them come up with the writing and the applications and submitted it to Chapel Hill . . . I won't call it tutoring because—a peer mentor—because the kids I worked with are some of the highest achieving students in the AP English class. They don't need the help writing the paper and they will come up with something on their own for the product. But I was just dealing with grants . . . and I had some experience and was more than happy to share because we were all equally enthusiastic about it. I enjoyed that, and I think a lot of schools could really encourage finding methods for seniors to come and work with the juniors to make sure things are going well. The juniors I worked with now have an edge on their product ahead of everybody else.

Daniel and Samantha both received peer coaching, and both thought it was very helpful. Daniel recalled writing his research paper in his junior and senior year:

When I was a junior, seniors came in the classroom and helped us. They had already done their project and helped us if we needed help. It was easy when it came to the paper finishing it up. Because when [my senior teacher] was helping

and other students were helping around me, they made it more clear to me. We wrote before and things and had the writing test, but this was like I thought the hardest paper I ever had to do because it was either you fail or pass kind of thing. It was easy for me in the end, because once I had the help from these people, I was okay at the end because I didn't need the help any more.

Madison, Joey, and Ava mentioned that the junior and senior English teachers at West High allow their students to work in small groups, or in pairs, and do peer editing of the research papers. All agree that peer editing improved their writing. Joey remarked:

When the teacher gives you your rough draft back, if you go through and make every correction that they said plus read it over yourself and have someone else read it, and you make more corrections that the teacher didn't say, you have a better chance of making it better.

Likewise, Ava recalled her assistance from peers and believes that their editing suggestions helped improve her grade on the final research paper. She explained:

Personally, I cannot edit my own papers because I usually do not notice my own mistakes. Therefore, having a time for peer editing and my English teacher's comments made the process of writing a second and final draft quite easy.

The findings suggest that peer assistance involves students learning from and with each other in ways that are mutually beneficial; it involves sharing knowledge, ideas, and experience between participants. Through peer assistance, the emphasis was on learning, but includes the emotional support that students offer each other.

The students in this study also received assistance and support from the Graduation Project Committee. It establishes the guidelines for all components of the senior project and is responsible for overseeing the operations of the program.

Graduation Project Committee

Four students mentioned that the Graduation Project Committee is essential for the senior project experience to be a worthwhile graduation requirement. Samantha said that the Graduation Project Committee at her school approves all the topics, or they “may ask students to improve on it or make some changes” before beginning the research. She argues that all schools that require a graduation project should have a graduation project committee to approve the research topics. She explained, “They should definitely have a committee like we did—a grad committee doing the approval and everything. You have to have it approved or else people will just do crazy things—stupid topics that don’t make any sense.”

In addition to approving the research topics, Madison remarked that the Graduation Project Committee members help locate advisors for students. She commented:

You can go to any teacher that is on the grad committee. There are certain teachers that are on the grad committee, and they let you know those teachers who can help you. It’s really good because your English teacher can only help so many people.

Moreover, Emily said that the Graduation Project Committee provides a lot of

help to students who do not pass the project the first time. A member of the committee is paired with a student who does not pass. Emily pointed out that:

The kids that fail need to be paired up with a teacher who is knowledgeable about the topic so that they can go through everything and say . . . “This is the reason you failed. This is what you need to work on” . . . I know [Ms. King] was paired with this student—a lot of students—who didn’t pass the first time and she helped them to pass. A lot of times they pass the second time. They get a lot of chances. They are well-prepared, and in the event that they do fail, they have some help. They have a lot of help.

Matthew explained that whenever a student fails the project, he or she must “immediately go and speak to one of the graduation project coordinators.” Project coordinators are members of the Graduation Project Committee. The coordinator contacts the other committee members and together they make an evaluation of the student’s work and determine if he or she was judged fairly. Matthew remarked:

They’ll look at the product; they’ll look at the project and just say, ‘Well, you have obviously done all the work.’ And the judges have to leave commentary on why they have failed you, and if they fail to do that, or if they leave commentary that really is not that related or shows evidence that they weren’t paying that much attention, then the Graduation Project Committee can override the decision. A small minority of cases have to go back through it with the judges, but most of the time the Graduation Project Committee looks at it and overrides the decision.

There is considerable support from this study that the Graduation Project Committee is essential for the senior project experience to be a worthwhile graduation requirement. The Committee approves all students' research topics, advises students, and makes final decisions on whether or not students successfully meet the graduation requirements for the project. Additionally, the Committee is responsible for establishing the guidelines for the research paper, the product, the portfolio, and the presentation.

Summary of Component One: Essential People

The data from this study suggest that there are several key individuals or groups that students identify as providing the most help and guidance with the senior project. Students' junior and senior English teachers guide students through the process of writing the research paper and answer students' questions about the projects' requirements. Mentors offer knowledge and expertise in the students' areas of interest. They assist students with finding research documents to support and answer essential research questions for the papers and help create products that are concrete examples of the results of the research. With peer assistance, students learn from and with each other in ways that are mutually beneficial. The Graduation Project Committee establishes and oversees the guidelines of the program, approves all students' research topics, advises students, and makes final decisions on whether or not students successfully meet the graduation requirements for the project.

In addition to the above named essential people needed for the senior project experience to be a worthwhile graduation requirement, the data suggest a second major

component is necessary. Students believe that senior project programs should have established clear and concise project guidelines that tell students all that they need to know about the project requirements.

Component Two: Guidelines to Follow

Following the guidelines established by the Graduation Project Committee is a second major component that the students in this study perceive as essential for the senior project experience to be a worthwhile graduation requirement. Of the participants, six mentioned that the senior project requirement is not that difficult if students follow the guidelines for each component that are provided by the teachers and use the materials that they are given. The senior project program at West High has been in place for 10 years, and during that time, school staff have developed and refined strategies and procedures to create a program that students believe contains well-defined guidelines to follow.

Students at West High are informed of the graduation project requirements in the ninth grade but do not begin serious work on the project until their junior year in high school when they must commit to a topic and begin the first draft of the research paper. The participants in this study said it is important for students to be informed of the graduation project requirements in their freshman year so they may begin to think about a topic and gather ideas to research. Madison suggests that “9th and 10th grade students start collecting newspaper clippings and interesting topic ideas to think about as they go down the road to the graduation project.” She agrees with the guidelines established by the school that students should collect ideas early and should not “have to commit” to

a research topic until their junior year.

Likewise, Matthew agrees with the guidelines that students should begin thinking early about and collecting ideas for the senior project and offers an explanation as to why students should not have to commit to a topic until they reach their junior year. He argues:

I am passionate about restorative justice, but if I started doing the research and planning my topic my freshman year, I would be sick of it by now. And my interests in ninth grade, I wanted to be a marine biologist and possibly go to UNCW. Well, right now I'm going to Chapel Hill for public policy, and that may change, but that is the topic of interest that I am leaving with from high school. I'm pretty set there. But the interest change explains that taking a 14- or 15-year-old and having them predict what they will be passionate about three years down the road is too much to ask. The topic should be a focus junior year; then continue the focus the senior year and have it out of the way, but not before that.

Additionally, Hannah and Daniel agree that West High has a good policy about students not having to commit to a topic until the 11th grade. Hannah remarked that students should "begin thinking about a topic their freshman year." That way they will have "a list of topics to choose from" their junior year "instead of picking something out of the air to be their topic."

Daniel believes it is best for students to begin the project in the junior year, as well and explained why:

I think honestly junior year is a good year to start. Sophomore and freshman year, that's pushing it. You know freshmen, definitely not, they are just getting out of middle school and even though they have been here for a year, it doesn't mean, you know, I don't think they are ready to really—cause I have been watching a lot of freshmen this year, they really are serious—I think you should think of ideas, but don't pressure yourself; start thinking of some ideas of what topic you want to do and maybe even think of a product if you want to.

The results of the study found that students should be informed of the graduation project requirements in the ninth grade but should not begin serious work on the project until their junior year in high school when they must commit to a topic and begin the first draft of the research paper. It is important for senior project programs to have established clear and concise project guidelines that tell students what they need to know. These guidelines should include a timeline of important due dates and should outline the steps of the graduation project from the time students commit to a topic and submit their project proposal to the time when students present their research and products to the judges. Students reported that one of the most important resources that provided the guidelines they needed to follow and made the senior project experience a worthwhile graduation requirement was the *Graduation Project Handbook*.

Graduation Project Handbook

Hannah contends that a handbook should be provided for students doing the senior project. She stated the *Graduation Project Handbook* (2007) at West High

“breaks the project down for all the kids.” The handbook for West High contains a descriptive list of the required components for the graduation project, charts to record graduation project due dates, an interest inventory, advice for choosing a topic and developing an essential question for research, a form for the student’s graduation project proposal, a mentor verification form and mentor contact log, a product log to document work dates and time spent, information on locating sources and how to write the research paper, checklists for the final paper and presentation, and scoring rubrics for the paper and the presentation (*Graduation Project Handbook*, 2007).

Daniel remarked that the handbook “gives you more than enough help,” and Emily declared that the handbook is the “guideline to the whole project.” She elaborates on this:

It tells you how many slides you need on your PowerPoint, how many pages your paper needs to be, how to write an outline, how to write an introduction, what the different types of introductions are, how long your body paragraphs should be . . . it’s full of information. You follow the handbook. You get it when you start writing the paper in your junior year. It’s very helpful. It tells you everything. It even tells you how to set up your PowerPoint and make sure your background is compatible with your font. It tells you everything you need to know.

In addition to guidelines for writing the research paper and creating a PowerPoint presentation, the handbook provides a list of supplies students will need to complete the research, and it states the appropriate dress for the presentation. Samantha conveyed:

We were told girls have to wear either dress pants or a skirt, wear heels or nice flats, and boys have to wear . . . I don't think they were required to wear a tie, but you have to have a dress shirt, button up or a polo shirt to look nice, khakis or black pants, no jeans . . . unless it had to do with your grad project. Like, if you did it on dance, you can wear a dance outfit.

Furthermore, the *Graduation Project Handbook* contains copies of the scoring rubrics for the graduation project. All students in this study believe that scoring rubrics are essential for the senior project experience to be a worthwhile graduation requirement.

Scoring Rubrics

The guidelines for the senior project program at West High School include rubrics for the paper, product, and presentation; students are given copies of these rubrics at the start of the project so that they know how their work will be graded. Emily explained that the research-paper rubric not only helped the students but also helped the teachers. She remarked that junior and senior English teachers use the same rubric to grade their students' research papers. The junior English teacher gives the completed rubric for the final junior paper to the senior English teacher. Emily told why this was important:

There is a rubric that your junior teacher filled in. My senior teacher said that she needed that rubric so that she could see the improvement that you've made from this paper to the next paper that you've given her.

Equally important to Emily was the presentation rubric. She stated that "your English teacher gives you the grading rubric that the judges use, and so you have a

list of questions that they are going to ask you, and you are well-prepared before you go.”

Likewise, Hannah felt the presentation rubric was helpful. She “knew what to expect once it was time to present” and “was very well-informed” because she had “a copy of the rubric that the judges actually used when they graded” her project. Hannah explained:

I was very well-informed like with this. This is the rubric that the judges actually used when they graded my project, when they said whether I passed or failed. So I knew that if I exceeded my hours, I was getting exemplary because if you get any resubmissions, then you don't pass at all. You have to get satisfactory or exemplary.

The data show that students perceive scoring rubrics for each component of the senior project as essential for the senior project experience to be a worthwhile graduation requirement. Rubrics provide students with guidelines of how their work will be graded. Yet another guideline that students note is necessary for the senior project to be a worthwhile graduation requirement is for programs to include class time for students to practice their presentations.

Class Practice

For this study, six of the 10 students interviewed reported senior project programs should have time built in during the senior year for students to practice giving their presentations. Ethan even suggested schools “require students take a public speaking class” before they have to do the senior project in order to better prepare seniors for

speaking in front of the judges.

At West High, mentors and teachers provide students with several opportunities to practice their presentations in front of their classmates or in front of others. Several of the students said they were nervous and uncomfortable having to present in front of the judges and having time to practice at school helped them overcome their fears.

Emily expressed that she was nervous about presenting but knew if she was to get her “jitters out and know exactly what works well and doesn’t work,” she needed to practice. She was able to practice in her English class and in some of her other classes at school. She told how practice helped calm her nerves about presenting:

Your English teacher will give you the opportunity to present. She gave us a sign up sheet; we had about a week of presentations. On the sign up sheet, you pick when you want to go—what day. She gives you feedback; your class gives you feedback. They ask you questions and sometimes they will give you a question that you hadn’t thought about. You write it down and put it in there so you don’t leave any room for questions you can’t answer.

Emily also practiced in her astronomy class that had “freshmen up to seniors in that class.” She explained that her teacher wanted to provide her with more practice time and to also show the underclassmen how a senior project presentation should be done.

Like Emily, Hannah supports the idea of allowing class time to practice for the presentation because practice made the presentation easier for her. She explained:

Maybe two weeks before till the day of, we had presentations in our

classroom. We would practice and she allowed the students to make notes on what we did. We took notes on what was good, what was bad, and what we thought people should do to change the presentation to make it better. We took notes on what you should say and what you shouldn't say, and if you were making eye contact. That helped a lot with the presentation part of it.

Daniel also had opportunities to practice in class. His English teacher gave every student time to present their PowerPoint presentations and gave students feedback on "what needed to change." His teacher also advised students to "go home and do it in front of your parents and friends." He stated:

I did it in front of the class once, and I did it in front of my family a couple of times just so I could get it down. You are going to feel more comfortable in front of your family because you are with them every day. So I would advise somebody to do it in front of people they don't know. The more people there are, the better you will get. It did help me to talk clearly and not hesitate and to memorize my paper and everything.

Likewise, Ethan's English teacher allowed time for his class to practice, but he thought presenting in front of his friends helped him a lot, too. He remarked:

My senior English teacher was great. She let us present to the class, but I also presented to a few of my friends. When you present to your friends, it kind of works on you because they are going to tell you the truth. Also, you have to not laugh and stuff. Your friends are going to make you laugh, and you have to be

serious. My friends gave me some good pointers too.

The results suggest that students believe having class time to practice in front of peers and others is essential for the senior project experience to be a worthwhile graduation requirement. Having time to practice in front of others and to receive constructive feedback from the practice presentations helps students improve their presentations, builds their self-confidence, and calms their nerves about presenting in front of the judges.

Regardless of the fact that students are given time to practice in class to help prepare for the presentation, are given a handbook that guides them through the components of the project, and are provided rubrics that indicate how work will be graded, not all of the students in this study believe that the guidelines for the senior project requirement meet the needs of all students.

Consideration of Students' Needs

The 10 students interviewed for this study were at different academic-level placements for their senior English classes. Three students were in Academic, five were in Honors, and two were in Advanced Placement (AP) English courses. The students in all three levels of English classes believe that senior project programs need to have various levels of support, guidelines, and procedures in place that will help struggling Academic students successfully complete the graduation project.

The Honor and AP English students interviewed for this study did peer coaching and saw firsthand how some students need more support than others to get through the

project. Matthew remarked, “Definitely the Academic students need more support to get through this. State policy must take into consideration the needs of kids who are struggling; otherwise it might increase the dropouts.”

Samantha, who is in Academic English, said she likes the fact that her school has some procedures in place, such as peer coaching, that help low-achieving students successfully get through the project. However, she recognizes there still needs to be more support for these students. She recalled:

I know a few people that really didn’t use their time wisely. There was a girl in our class who was repeating her senior year, and she didn’t try very hard. I don’t know if she passed. A couple of others weren’t really interested in working either.

While the project is clearly a struggle for some students, 60% of the students believe it is not challenging enough. Matthew thinks the requirements for Honors and AP English students should be “a lot tougher” and more challenging. He argues:

If I was taking Honors English, they were not expecting much, and if I were taking Academic English, they expected even less. For our presentation and for our project we have a high standard, which is fair, because we are getting extra quality points, higher GPA, and when we apply to college they are supposed to be more impressed with us because of the fact that we are taking an AP course, which are supposed to be tougher courses. And I think, as you will hear from this program, I think for the AP kids the graduation project could be a lot tougher . . .

The requirements to pass are pretty easy and usually for those kids that don’t pass,

it's really obvious why when you look at their product because it is something that appears thrown together last minute. It clearly, clearly does not demonstrate 15 hours . . . I can't say that I found any of it terribly difficult. I found this to be a relatively easy project . . . Most of my concern is that there is not enough support for the lower achieving kids and it is not tough enough for the high- achieving kids. And granted while a lot of the kids in the AP class would tell you differently, but in terms of what they would like to do and what I know they are actually capable of, they could do much more . . . Considering this is supposed to be the biggest project you work on to this point in your scholastic career, it wasn't much. Like I said, the teacher is stressed about it, and the students are stressed about it, and the next day you come back into class and it is back to the *Canterbury Tales* or whatever book we are reading at the time. It is not necessarily that we should have instant gratification, recognition, let's have a party, but I would have liked to been able to present for 30 to 40 minutes on the topic instead of trying to cram everything into 10 minutes. If you put in a minimum of 15 hours, and I put in well over 20 hours, then that corresponds to about an hour's worth of work for only one minute of presentation, which I don't think is very much.

Likewise, Ava thought the project was "overrated" and needed to be more of a challenge to students. She remarked:

The graduation project has been extremely nerve-racking and time consuming,

but honestly, in my opinion it is overrated. I don't think it is all that scary if only all the teachers did not make such a big deal about it. I can't say that I found any of it terribly difficult.

Ava was not alone in saying that teachers tend to "make such a big a deal" out of the graduation project and lead students to believe it is going to be more difficult than what it actually is. Of the 10 students interviewed for this study, nine said they feared doing the senior project and thought it was going to be much harder than what it actually turned out to be. They attributed their fears to the information they received from their teachers and from graduating seniors who had already completed the project.

Hannah remarked that teachers "don't tell you that you are going to fail, but they pound it into your head that you have to pass" in order to graduate. She added:

Stress comes from knowing that if you do fail, you won't graduate if you don't redo it and do a good job. The stress comes from knowing that it's a graduation requirement and it's just one project that determines whether you graduate or whether you don't graduate.

Matthew reasoned that teachers are stressed about their students doing the project and carry this stress over to their students. He commented:

Really the worst part of it was how stressed the teachers were about it and how stressed the students were because really by the time the end of October rolled around it seemed to have consumed all the lives of the seniors, and that was irritating.

Emily believes the stressful comments about “having to pass” scares students so badly from doing their projects that they either dropout or change high schools just to avoid doing the project. She recalled:

Teachers need to be trained not to scare their students because it is really, really easy to scare many kids off from this grad project. I wasn't as scared because I have an older sister who went here and she explained it to me. She said it's nerve-racking, but it's not that bad. That calmed me down, but a lot of students will transfer before they get to their senior year so they won't have to do the grad project. They can't do that now, but a lot of students would transfer to a different school their sophomore year or their junior year or even right after their junior year going into their senior year. They'd transfer. So I think it's important not to scare the kids off and just let them know that they just have to commit, that's all. The project is nothing above your level that you can't do.

Madison remembered when she was in her sophomore year, she saw her senior friends “truly dread the senior project.” From her observations she began to think the project “was this big monster” that she could “never tackle.” But she discovered that the project did not affect her “in a negative way as it affects most. People make it hard on themselves, and the key thing to do is to not make it hard on you.”

Daniel believes scaring students about the project puts more pressure on students. He explained:

A lot of people told me it's going to be so bad, and just, you know made it

seem like it's the worst thing in the world, and it really isn't. I was terrified; I was really scared. I don't think they should spook students as much as they do because if you spook them, you are applying more pressure on them.

Daniel added that it was not just the teachers that scare students about the project. Seniors who have already finished the project love to brag and scare other students who have not yet completed the requirements. He remarked, "Seniors. Oh, they love to brag about how bad the judges are. And they were leaving; they didn't care. They want you to feel like you were going to fail."

Daniel thought "teachers were more real" in their "scare stories" about the senior project. He recalled some of the things his senior English teacher told his class:

Ms. Blake told it like it was. 'Hey, they are going to judge you.' You know. She said, 'No matter what, come in there with your game face. They are not going to sit there and just let you pass. You have to work for it.' That's what I like about teachers telling me because they actually told you like, 'Okay, you are going to do this, this, and this. They are going to say, you know, if you fail they are going to tell you why you failed. You know they are going to be here for your entertainment; you know you are like a show. You are here to entertain them. If they give bad looks, that doesn't necessarily mean that you failed. Just keep them guessing and that's pretty much what it is all about. Keep them informed. It's like news; you are always informed with the news. You are like a newscaster; tell them what's going on.' And that's why I wasn't really pressured as I was

before by the senior walk down the hall and hearing ‘you are going to fail.’

Daniel did say that teachers told stories about students who failed, and according to him, these were the stories that scared students the most. He recounted:

Ms. Blake told a story of people that failed, and it was actually kind of funny though, because what they did was, it was stupidity. You know they just sat there in class all year and the last week they were going to do a project. So that’s going to pass? They told stories of kids that had minor little details, but they fixed it and they passed, but they also told stories that were absolutely about students that just didn’t come to school or who had failed it like two or three times, and those were the stories that really got to students. Those were the stories that made students look around the room and think, are you next? That was kind of difficult. I don’t think they should make it seem like the hardest thing in the world.

The findings demonstrate that students in Academic, Honors, and AP English courses believe in order for the senior project experience to be a worthwhile graduation requirement it is essential for senior project programs to address the needs of all students. Students who are struggling academically should receive more support and guidance throughout the project, whereas students who are high academic achievers should be provided with enough challenge to stimulate their academic growth and make the project a worthwhile learning experience. Teachers and others should not create additional stress for students completing the project by frightening them with stories about not passing. Instead teachers must actively engage all students in the project and provide

encouragement and support as well as clearly defined guidelines to help ensure all students succeed.

Summary of Component Two: Guidelines to Follow

Following clear and concise project guidelines established by the Graduation Project Committee is a second major component that the students in this study perceive as essential for the senior project experience to be a worthwhile graduation requirement. Students should be informed of the graduation project requirements in the ninth grade but should not begin serious work on the project until their junior year in high school when they must commit to a topic and begin the first draft of the research paper. A student handbook should include a timeline of important due dates and outline the steps of the graduation project from the time students commit to a topic and submit their project proposal to the time when students present their research and products to the judges. In addition to a handbook, students should be given copies of scoring rubrics at the start of the project so that they will be informed of how their work will be graded. Programs should have time built in during the senior year for students to practice giving their presentations. Senior project programs should address the needs of all students. Students who are struggling academically should receive more support and guidance throughout the project, whereas students who are high academic achievers should be provided with enough challenge to stimulate their academic growth and make the project a worthwhile learning experience. Teachers should provide encouragement and support to students and not tell them “scary” stories of project failures, which, in most cases, only add to the

students' stress.

Besides having guidelines to follow, the findings suggest another major component that will make the senior project experience a worthwhile graduation requirement. The senior project should have adequate physical and human resources available to students completing the project.

Component Three: Physical and Human Resources

In addition to having programs that are designed to meet the needs of all students, the data revealed a third major component that students view as essential for making the senior project experience worthwhile: certain physical and human resources must be available to students completing the senior project. First, students believe that schools should provide the use of computers and printers and have craft supplies for those students who may not be able to afford them or have access to them at home.

Computers

Madison and Emily emphasized that schools have to “have computers” that students can use to do research and type and print out their papers. Daniel remarked that computers are a necessity for success and added, “I went to the computer and did everything.” Emily was glad that her school had computers available and commented, “We have computers here for kids who need to spend time and maybe type up their paper here or print their paper here.”

Craft Supplies

Samantha believes schools should have craft supplies on hand for students who cannot afford to buy them for their products. She suggests:

The school could have poster board or just a few things, paper, colorful paper would help, Sharpies—Sharpies are a big part. Everybody does boards and needs Sharpies. Just little things like that would help. I think that would be a good idea just to have them around. Maybe the school could have a fund for that. I think it would be something that might help. I didn't think about money doing my project because I had it, but if I didn't, I guess it would have been so much harder.

Andrew agrees with Samantha because he was a student who had “limited supplies” of only “cardboard and paint” to make his product. He wants schools to “make sure you have resources for the kids that are doing these projects.” He remarked, “It is important to make sure resources are available at the school.”

Supplemental Classes

In addition to having craft supplies, computers, and printers available for students completing a graduation project, students believe schools should provide additional classes prior to the senior year that would help students prepare for their senior project. Ethan recommends having writing and public speaking classes and expressed his opinion why these classes would help students:

I think there should be maybe a class that helps people, like a certain class you can take that helps people with writing because a lot of people really can't write

that well. You think you can, but then when you actually write a paper, you can't use words like 'I' and that kind of stuff in your paper. So a class that helps you write, a creative writing class. You'd take it in ninth-grade year. I think that should be recommended for all ninth graders. Since they have to do the project, I think they should have to take that class—a creative writing class that helps with their writing, because the paper hits you in the face. Because you think you wrote a good paper and then your teacher grades it. All the words you've used, you really can't use. So you have to go back and change them, because it really can't be like an opinion paper. So, that kind of class, a creative writing class, I think it should be recommended for all ninth graders. Also, a public speaking class because you have to talk clear and that kind of stuff in front of people, eye contact and all that kind of stuff. So a public speaking class, those two classes.

Matthew, who was disappointed in the lack of rigor in the graduation project for students, said he would like to see senior project programs include a class that makes the graduation project more of a capstone project. He explained his idea:

Something I would like to see, and it's a long ways away from happening, is kind of an idea for a curriculum of a kind of career prep class, professional skills development class, which the grad project would be the capstone of that. But all semester long you work on research methods, you work on essay writing, you work on developing your public speaking skills and how to put together an efficient, professional looking PowerPoint. So it's not necessary that your senior-

level English teacher is truly trying to have you read all these books and do the essays to meet state curriculum and work on the essay and your grad project at the same time. You would have this separate class every day for an hour and one-half to work on your grad project. And while logistically and financially this is a long ways off from happening, it would be difficult to pull off, but I personally think if you point to this idea, you could see a rise in success rates.

Furthermore, Josh would like more opportunities for seniors to receive help from teachers with the graduation project and suggests schools establish an after school program. He remarked, “So maybe a program after school just for seniors doing their project, where they can sit down in a room with a teacher. That’s every day, not when there’s a teacher free and available, but every single day.”

Throughout the senior project process, the teacher’s role is to guide and advise rather than to direct and manage student work. However, the findings suggest that students would like more teacher assistance with writing, research, and public speaking. Students believe having additional classes and more teacher assistance will better prepare seniors to work independently on the project and to demonstrate their knowledge, skills, and proficiency around their topic of choice.

All students in this study note that the senior project is largely an independent enterprise in which they must gather information from a variety of sources and synthesize, analyze, and derive knowledge from it. At the end, they must demonstrate their newly acquired knowledge and be judged by how much they have learned and how

well they communicate it. Having autonomy to select a topic of their choice linked to an area of their interest and to make decisions on their own related to the project is the last major component that students view as essential for making the senior project experience a worthwhile graduation requirement.

Summary of Component Three: Physical and Human Resources

The study suggests that schools should provide certain physical and human resources to students completing the graduation project requirements. Craft supplies and the use of computers and printers should be available for those students who may not be able to afford them or have access to them at home. Moreover, writing and public speaking classes that prepare students for the project should be offered prior to the senior year. Teacher assistance is needed with writing, research methods, and public speaking, and students may benefit by having classes that concentrate in these areas.

The senior project is largely an independent enterprise, and as such, students in this study view having the right to be self-governing as the last major component essential for making the senior project experience a worthwhile graduation requirement.

Component Four: Autonomy

Although the students did say they received help on their projects from their English teachers, mentors, peers, and Graduation Project Committee members, six of the students interviewed said that the project was mostly an independent effort that forced them to learn to rely on their own initiatives to meet deadlines and project requirements. Daniel remarked, “Yeah, we had certain days where we actually did it in class, but

most of it was on your own, on your own time at home.”

To help students become more responsible, working and making decisions independently are parts of the graduation project design. For the graduation project, students are given autonomy and are required to showcase what they know and can do on their own. Josh explained:

I pretty much went step by step by myself, and if I ran into a problem, then I asked for help. The whole concept of the project is getting out there with nothing. You start with nothing and you build yourself up to have this one big, amazing project that you are going to walk in to present and walk out and leave your judges like . . . “WOW! That was good!”

Similar to Josh, Matthew reported his project was largely an independent effort.

He remarked:

My mentor definitely assisted me just by giving me the opportunity to get involved with Teen Court, but beyond that I really feel that this was self-driven, self-motivated. It is largely an independent effort in the sense of putting all the work together and contacting everybody. I reached over 70 students. For a high school effort, reaching 70 students I thought was pretty impressive.

Having to make decisions, put all the work together, and contact people for the project by themselves, taught students that they must wisely manage their time and not procrastinate. Andrew found “time management is one important thing” and students should “learn that you have to pace yourself.”

Ava and Samantha both agree with Andrew on the importance of managing time wisely while working on the project and stress that students should not procrastinate. Samantha explained that because work is done independently, it is easy for students to decide to put things off. She elaborated on this:

My boyfriend's little brother goes here. He's a sophomore, so next year he will be a junior. I told him use all your time in your junior year. Use your junior year because I didn't, and that would be so much more helpful. Decide what you want to do in your junior year and make sure that everything is planned and everything is right and you have the resources and you have the time. Make sure you make the most of the whole semester to do it.

Daniel reported that he saw a lot of students in his junior class that made poor decisions on how to complete the research paper and “would just mess around in the classroom” and not use their time to work. He added:

I feel sorry for the people who didn't do that, because now they are behind. And I got ahead of the game. That's my advice to other people. You know, get done while it is early junior year so when senior year comes along you will just fly through there like it's nothing.

Matthew indicated that it is important to “have things figured out ahead of time.” He knows if he “did not start his paper until the senior year and was faced with finding, coming up with the topic, and the initial research, it would have been stressful.” He saw “a lot of students procrastinate,” and by procrastinating, these students ended up

“throwing things together at the last minute and barely scraped by on the third attempt” to pass.

The findings indicate that the senior project is largely an independent enterprise in which students must use their time wisely to meet deadlines and project requirements. All students in this study reported they liked working autonomously and making decisions about their projects. One of the most important decisions that the students said they had to make was their choices for a research topic.

Topic Selection

All the participants agree that an essential piece of the senior project program is the careful selection of a topic. Students believe care must be taken in choosing a topic because they have to work with that topic for a considerable amount of time. They believe the topic should be “interesting and meaningful” to the student doing the research. Hannah argues:

Don't pick a topic that you don't care about because you are married to it for two years. You are stuck with that topic junior and senior year, and you present it. If you are not up there in front of the judges and enthusiastic about your project, then you probably are not going to pass because that is part of your presentation grade.

In much the same way, Andrew thinks students need to choose something they are interested in. He commented:

That's a pretty important thing. Because if you are going to do something that

you are not interested in, how are you going to convince the judges that you are interested in the topic? Or how are you going to win the judges over to the answers to your essential question? If you choose something that you are passionate about, it is always, always, always easier to do work for it. Even if it takes a lot of work, you really won't mind it that much. Apart from that, I'd say try to choose something that you can do research in. Pick something that you can actually find information on and have some credible sources to corroborate the information. You need to pick something that you can back up . . . When I was writing the paper, I had very strong convictions about what I was writing, and also I was able to find a lot of information on the topic. It was an interesting topic; I think that made it a lot easier.

Several of the students pointed out that the topic selected should be something that students will not tire from working on over a long period of time. Emily advises others to "choose something that you are very interested in. Choose something that you can work on for two years and not get tired of it." Abby insists that the topic "should be something that you really like to do. You don't want to spend 15+ hours on a product that you are not interested in because it will not turn out very well." Madison agrees and added, "You want to pick something that fits your personality and that fits something that you know about because you are working on this for two years so you have to have some kind of interest in it."

Madison and Samantha both think that their topic choices helped them decide

what they want to do for a career. Samantha explained:

I really learned what I want to do for my career. I think it really made me decide.

It just made me decide that a teacher is what I really want to be, because I was
iffy before I decided to do my internship. Then I decided to do my grad project on
it, and by the end of the semester, by the end of the nine weeks, after working
with the kids, I knew that I really wanted to do it. I was so excited about it. I
really decided I want to be a teacher. I want to teach kindergarten.

Similarly, Madison believes the topic she chose for her project helped prepare her
for a job she hopes to have after college graduation. She “wants to be a social worker.”

She remarked:

The project was so meaningful to me. From it I learned that I can’t help
everybody. There was this one kid that I was really fascinated by. He has so much
potential and he just didn’t care. And so it kind of hurt my feelings, because ‘Hey,
it’s like, I want to help you.’ But it was like, ‘So, a lot of people have told me that
before.’ But like, ‘I am different, and you know, I want to do this for you.’ But
you know he just kind of gave me a sense of you can’t help everybody. And I
think that is preparing me for what I want to go into. I want to be a social worker.
So the project did help me prepare for that.

Josh commented that before he started the senior project, he already knew what he
wants to do after he graduated from high school. He wanted “to become a school resource
officer and give back to schools and help kids not go the wrong way.” He chose his

project topic because he wanted to “pursue it as a career” and to “learn more about the job.”

Matthew who “enjoys the process of learning” and Andrew who “loves to learn” remarked that students should choose a topic that they are “passionate” about. Andrew explained why his topic was a good choice:

It was good for me to be able to present something that I was passionate about to a group of people, and I am pretty sure I came across to them that this was something that I was very interested in and hopefully they would be interested in it as well after the presentation. I believe I succeeded in that. I think I found some very interesting information out when I was doing this project, and it is something that I would like to continue doing more research on at a higher level.

Regardless of the reason for choosing the topic, Ava, Ethan, and Abby all commented that the topic should be something that has not been done too often by other students. Abby mentioned that “the Graduation Committee must approve your topic, and they don’t like it when it is something a lot of people have already done.” Ethan explained that “your teachers and the judges don’t want your topic to sound like someone else’s topic. You have to be creative when choosing your topic.”

Choosing a topic is only one of the many decisions students must make over the course of the graduation project. All 10 participants reported that taking responsibility to be diligent in documenting the time they spent on the product was essential for their success. Students in this study believe that for the senior project experience to be a

worthwhile graduation requirement careful documentation of the time and effort spent working on the product should occur.

Documentation

The students in this study contend it is essential for senior project programs to stress to seniors the importance of documenting their time and work on the product for the graduation project. At West High, students are required to show they have worked a minimum of 15 hours on their products. Emily explained, “The judges look at the portfolio to make sure everything is legitimate” and that the product logs are signed and students have met their 15-hour requirement.

Ethan emphasized that on the product log “time has to be documented and someone has to sign off on it” before it goes to the judges. Josh and Andrew remarked that the product log gives judges proof that students spent time doing the work. Josh commented, “I kept a product log and put things in a folder. I kept it with me in case the judges asked. I had proof right there that shows them.” Without accurate and careful documentation, the judges may decide students have not met the 15-hour requirement. Andrew explained:

For the product log you have to have at least 15 hours of work logged, and you have to show that you put 15 hours of work into it. So you just can’t try to do it over the weekend or do it the night before and make up some fake log. That won’t work. They will see right through it and you will fail the product.

Ava was concerned that she would fail the product but for a different reason

other than a “fake log.” She was worried that her finished product would not appear to the judges as having 15 hours of work. She told why documentation was important for her.

With the product, I had to document my time and sources. The biggest problem lies in the fact that my product did not appear as if it took as long to accomplish as it did. I was concerned that the judges would not think that I spent enough time on the painting. Project advisors gave me guidance on how to document to show the 15 hours that I needed for the product. I carefully and thoroughly explained the procedures I took in accomplishing my product in both my product log and also in a separate document that shows step by step what I did.

Hannah used her product log and also scrapbook documentation to show the judges her 15-hours of work on the product. She explained:

I kept a running log of whenever I did anything at the nursing home, whenever I worked on my scrapbook, or when I worked on the poem that I included in my scrapbook. The time spent volunteering at the nursing home and making my scrapbook counts toward the 15-hour requirement. You have to have a minimum of 15 hours; I think I had 23 hours.

The students in this study argue it is essential for seniors to accurately document time and work spent on the product for the graduation project. Keeping accurate documentation helps ensure that students have proof of their efforts to share with the judges. To manage the product log and other papers that record time and effort, the

students in this study used a portfolio.

Portfolio

The students in this study were responsible for keeping a portfolio that contains drafts of their research papers and final copies, their mentor verification forms and mentor logs, if applicable; their product logs; and any other papers that document time and effort spent on the product. These important papers are required for their presentations to the judges. Before the judges listen to the student's oral presentation, the panel should examine the student's portfolio.

The participants in this study believe a portfolio is the management tool to use when doing a senior project and is essential for the senior project experience to be a worthwhile graduation requirement. Students reported that using a portfolio helped keep papers organized and easily accessible. Daniel noted that keeping a portfolio in his junior year helped make writing the final research paper easier in his senior year. He explained:

It keeps all your things together. When I had the summer break between my junior and senior year, I didn't care about the project all that much. So my senior year, the portfolio helped me bring back memories when I used my notes. The portfolio keeps all your things together. You actually have two rough drafts and a final copy of your paper and that shows you actually are progressing in your paper. They, the judges, want to see that you worked on your paper.

In much the same way, Matthew remarked that "the portfolio really is what you just hand in at the end." He added, "If anyone wants to see how your writing has

improved, you have a folder you can just turn in.” Emily believes maintaining the portfolio is important because it also must contain all the different forms necessary to meet the graduation requirements. She stated:

I think it’s important. You have a mentor for your project. So you get somebody that is interested in your topic and works in that field and you get them to help you with your project. There would be a mentor log where you have to have a certain amount of hours, and you have to have a product log, which is everything you have done for your product—written down so it’s documented as 15 hours. So in your portfolio are your mentor log, your product log, and your paper. It’s in a folder, and you give it to the judges. They give it back. They look at it to make sure everything is legitimate.

Of the students interviewed, nine reported no difficulty with keeping their required papers and forms for the project in a portfolio. The participants said that organization is the key for maintaining a portfolio that can benefit students as they work on a senior project. Daniel, however, has a problem with organization and so the portfolio “at times was hard to keep.” He remarked, “Organization for me is a downfall when it comes to school in general. So it was difficult for me to keep everything together. I have a problem with that.”

The students in this study report that they are the ones responsible for “keeping everything together” for the project. They must collect and organize mentor logs, product logs, research papers, and other documents needed for the final review before the judges.

Summary of Component Four: Autonomy

The right to be self-governing makes the senior project experience a worthwhile graduation requirement for students. The findings suggest there is more interest in the project when students are given freedom to select topics that they are interested in and are meaningful to them. In addition, taking the initiative to maintain a portfolio that contains the necessary papers to meet graduation requirements and to diligently document the time spent on the product are essential for the senior project experience to be a worthwhile graduation requirement.

Summary of Chapter IV

Chapter IV provides background information about the North Carolina high school used in this study and includes an overview of the school's senior project graduation requirements. The study's major findings follow the background section. Since the qualitative tradition of phenomenology was used to conduct this study, the findings begin with a description of the researcher's perceptions of the phenomenon. Then an account of each participant's experience follows. The chapter concludes with an overall description, or composite, of the meaning and essence of the senior project requirement.

The results of this study suggest that students in all three course levels, AP English, Honors English, and Advanced English, identify four major components as essential for the senior project experience to be a worthwhile graduation requirement. The first major component consists of several key individuals or groups needed to

provide help and guidance to students with the senior project. These individuals include highly qualified junior and senior English teachers, mentors, peer assistants, and the Graduation Project Committee. The second component consists of clear and concise project guidelines that inform students about all of the project requirements. The guidelines should meet the needs of all students and should include scoring rubrics and class time for students to practice. Physical and human resources are the third component. The participants in this study said that computers, printers, craft supplies, and additional classes in writing and public speaking should be available to students at the school. The final component is autonomy. The right for students to be self-governing makes the senior project experience a worthwhile graduation requirement.

A discussion of the major findings and their link to the related research literature is presented in Chapter V. The implications of the study for policy and practice are also discussed as well as suggestions for future research.

CHAPTER V

DISCUSSION

Introduction

It was the purpose of this phenomenological research study to understand what seniors perceive as essential for the senior project experience to be a worthwhile graduation requirement. The objective of the study was to address the following research questions:

- From the student perspective, what is the essential structure of worthwhile senior project programs?
- What is difficult or easy about the senior project?
- What does the senior project do for students?
- What does the senior project not do for students?
- What, if anything, do students learn from doing the senior project?

Chapter V begins with a discussion of the study's major findings and their link to the related research literature. Next, the implications of the study for policy and practice are discussed, and then suggestions for future research are provided.

Structure of Worthwhile Senior Project Programs

Essential People

The participants in this study were asked what they believe makes up the essential structure of worthwhile senior project programs. The findings suggest there are four major components essential to the structure. The first component is that programs should

have people on staff and in the school community who have a vested interest in the program. This study demonstrates that highly qualified junior and senior English teachers, mentors, peer assistants, and Graduation Project Committee members are those individuals who students rely on most for help with the senior project.

Consistent with previous studies (Lapan et al., 2003; Shaunessy, 2004; Wolk, 2000) in project-based activities, such as the senior project, teachers function as facilitators, mentors, and public-relations experts. Solomon (2003) says throughout the process, the teacher's role is to guide and advise rather than to direct and manage student work. Shaunessy (2004) indicates teacher advisors are critical to the success of senior projects; they provide students with support and actively engage in monitoring student progress and continually evaluate student's abilities.

It should be noted that in this study English teachers were identified by the students as essential to the success of the program. The students reported their junior and senior English teachers facilitated the project; they advised them about their research paper and ideas for products and monitored their work and progress throughout the senior project.

The study suggests that it is essential for worthwhile senior project programs to have qualified English teachers who know the requirements of the project and can plan everything out in sequential steps for students to follow. In this study, the teachers created a supporting framework or scaffold by breaking the project down into parts so that it was not overwhelming and seem too difficult for students. As noted in the

literature review (Barron et al., 1998), it is important for teachers to scaffold open-ended projects and to help students continually reflect on how and why their current activities are relevant to the overall goals of the project. The findings presented in this study are consistent with the existing literature. Students reported that the “good teachers” constantly gave constructive feedback on the research papers and practice presentations as well as provided them with the necessary tools and information, such as grading rubrics, model papers, and a graduation project handbook, that kept them informed about the overall project, due dates, and what to expect.

Because of the research paper requirement, the junior and senior English teachers were responsible for advising and overseeing the senior project at West High School. Prior studies indicate teacher advisors are critical to the success of senior projects (Shaunessy, 2004); however, this raises the question of whether only English teachers should have this responsibility. Although English teachers may be viewed by many administrators, parents, and students as the “experts” for instruction in writing papers, communication skills are important across the curriculum. Writing is not a subject-specific skill. It is the responsibility of all teachers—math, history, science, social studies, health, art, and music—to teach and expect grade-level writing.

Furthermore, students select a topic of interest to research that involves content-specific subject matter. For example, one student in this study researched Asian visual arts. Although the art teacher did help the student with ideas for making the product, the art teacher did not read or critique the student’s paper to check and see if the content was

accurate. Could the paper and the end result of the graduation project be better if students have a content-area teacher to share the role of advisor? Senior project programs might consider involving not just English teachers but all teachers across the curriculum to serve as student advisors.

Besides having good teachers, there is considerable support in prior literature (Lapan et al., 2003; Preuss, 2002; Shaunessy, 2004; Wolk, 2000) that mentors are essential for worthwhile senior project programs. When students are working on project-based activities, they must search for answers using a variety of sources, one of which is working with experienced adult volunteers and specialists (Preuss, 2002). Lapan et al., (2003), Shaunessy (2004), and Wolk (2000) argue community members who mentor often possess an immeasurable fountain of information and leadership skills. Students can learn information about their topics of choice and develop advanced skills and concepts while networking with these specialists (Shaunessy, 2004).

From the students' perspectives, the findings affirm the literature. Participants said by working with a mentor they learned to network with others and to experience their opinions and perspectives. Mentors helped students see the relationship between what they were learning and how it applied to life outside of school. The results indicate that mentors who are knowledgeable, interested in students' topics, and are willing to give their time to help students succeed in completing their projects are an essential part of the structure for worthwhile senior project programs.

Additionally, this study suggests that peer assistance is essential to worthwhile senior project programs. Some students in this study assisted classmates with their projects during class time and after school. Other students in this study were allowed to work in small groups, or in pairs, and do peer editing of the research papers. All students agreed that the assistance they received from their peers was beneficial and improved their writing. The peer coaches “felt good helping other students succeed,” and the students who were coached thought it was very helpful to work with their peers. Thus, peer tutoring can benefit both the child being tutored and the child who is instructing.

The findings are consistent with the existing literature. Many researchers have found that help from peers increases learning both for the students being helped as well as for those giving the help (Franca & Kerr, 1990; Griffin & Griffin, 1998; Roscoe & Chi, 2008; Topping, 1996). The educational effectiveness is thought to be due, at least in part, to the fact that it allows the learners to seek academic assistance from a similar-age peer, which is often less threatening to the learner’s self-esteem than seeking help from an authority figure, such as the teacher. The peer teacher and learner have more similar amounts of prior experience with the concept being learned and are at a more proximal stage of cognitive development, both of which serve to facilitate learning (Bích Diệp, 2008).

The existing literature (Topping, 1996) recognizes other advantages associated with peer- assisted learning. “Pedagogical advantages for the tutee include more active, interactive, and participative learning, immediate feedback, swift prompting, lowered

anxiety with correspondingly higher self-disclosure, and greater student ownership of the learning process” (p. 325). However, the literature also shows disadvantages associated with peer assistance. Topping (1996) notes the quality of tutoring from a peer tutor may be a good deal inferior to that from a professional teacher, although this should not be assumed.

The findings of this study indicate the effects of peer tutoring are positive and prove to be an essential part of the structure of worthwhile senior project programs. Nonetheless, programs should consider that not all students will be “good” teachers and the level of instruction offered by a peer may not be high enough. Thus, for worthwhile senior project programs that use peer assistance, there is a need for teacher monitoring and quality control.

In addition to peer assistance, mentors, and good teachers, the results of this study suggest that the Graduation Project Committee members serve a multifaceted support role in worthwhile senior project programs. The findings indicate that worthwhile programs have committee members who are readily available to students and help answer their questions and concerns about their projects. The Committee also establishes and enforces the guidelines for the projects and approves all students’ topics prior to them beginning research. If there are students who do not successfully complete the project, the committee has the responsibility to review the comments of the judges and provide students with feedback on what to do in order to meet the requirements and graduate.

Having essential people, such as a graduation project committee, highly

qualified junior and senior English teachers, mentors, and peer assistants, is the first major component students perceive as essential to the structure of worthwhile senior project programs. A second major component students believe is essential to the structure of worthwhile senior project programs is for programs to have established clear and concise project guidelines that tell students all that they need to know about the project requirements.

Guidelines to Follow

It is important for worthwhile senior project programs to have clear and concise guidelines for students to follow. Advocates of measurement-driven instruction (Popham, Cruse, Rankin, Sandifer, & Williams, 1985) have long seen benefits in schools establishing learning objectives with guidelines that provide focus and direction for teaching and learning. Stanley (1999) notes that students in project-based environments learn over time to take charge of their education and often are very aware of district or state curriculum because these standards are included in project-assessment rubrics. This study demonstrates that if graduation project policies and procedures are well-defined, then students should have clear expectations to strive toward in their work and the project should be less difficult for them to complete.

Graduation project policies and procedures should also take into consideration the needs of all students. The findings of this study, as other studies have done (Fleming, 2004; Nichols, 2003; Schroeder, 2000), illustrate that certain students may require more support to successfully complete the senior project graduation requirement. Previous

research (Fleming, 2004) has suggested that some students, including members of minority groups, English-language learners, and those in financial need, are disproportionately likely to experience higher attrition and dropout rates when faced with stringent graduation requirements (Schroeder, 2000; Warren, Jenkins, & Kelick, 2006). Table 3.1 reports the number of dropouts at West High School from 2000–01 until 2006–07 (Research and Evaluation Annual Reports, n.d.). The table supports the literature (Fleming, 2004) and shows that members of minority groups, particularly Black males, experience higher dropout rates than Caucasians.

Table 3.1. *Dropouts by Gender and Ethnicity from 2000–01 until 2006–07*

School Year	No. of Events	Male	Female	Caucasian	Black	Hispanic	Asian	Other
2000–01	71	44	27	25	43	1	1	1
2001–02	48	32	16	19	24	1	3	1
2002–03	13	8	5	3	10	0	0	0
2003–04	39	27	12	10	28	0	0	1
2004–05	54	30	24	5	49	0	0	0
2005–06	55	28	27	5	46	2	0	2
2006–07	51	27	24	7	40	3	0	1

Note. American Indian experienced 0 dropouts from 2000–01 until 2006–07.

However, according to the *Report to the Joint Legislative Education Oversight Committee: Annual Report on Dropout Events and Rates* (2007), “dropout events can be difficult to investigate, and there are circumstances when a school official has to provide an ‘approximate’ reason for a student leaving school” (p. 4). Although participants reported that some students either dropped out or changed high schools to avoid doing the graduation project, it is difficult to determine from this study if students dropped out of West High because of academic problems that may have been associated with the graduation project requirements or left school for other reasons.

Additionally, prior literature shows that low-level achievers seem to struggle more with academics. Nichols (2003) found a relationship exists between poor achievement in students’ beginning educational careers and their later poor achievement. Students who struggled on standardized exams and failed to meet state minimum requirements in the third grade were potentially the same students who failed to meet graduation requirements seven years later in the 10th grade. The findings presented here provide support for Nichols (2003) and indicate that students who have received little academic support throughout the educational system and have been held to lower standards have greater difficulty completing the project. Therefore, worthwhile senior project programs should take into consideration the needs of students who may require more support to successfully complete senior project requirements.

Moreover, some students may need physical and human resources available at the school, such as computers, printers, craft supplies, and classes in writing and public

speaking, in order to help them successfully complete the graduation project. Students participating in this study recognized the availability of human and physical resources as an essential third component to the structure of worthwhile senior project programs.

Physical and Human Resources

The findings suggest that provisions should be made at the school level for those students who may not have access to computers or printers at home for completing the research paper or may lack the finances needed to purchase craft materials for creating a product. Prior literature supports these findings that such resources are essential for the senior project experience to be a worthwhile graduation requirement. Holland (2001) found that senior projects require both physical and human resources, such as faculty time and expertise and money to fund supplies, materials, and products. Project-based learning creates an environment that challenges students to access resources needed to solve problems (Barron et al, 1998; Bordelon & Phillips, 2006; Holland, 2001; Shaunessy, 2004).

Shaunessy (2004) suggests that students should create a project-learning plan that they submit to their advisor. The plan should include a written statement from students about their intended area of study, why they have selected it, how it stretches their learning, how they will relate this to their product or project, who their mentor will be, the intended project timeline, and the resources that will be needed to execute the plan. Knowing the parameters of the project and what resources students need may help advisors provide instruction in research skills, assist students in locating resources, or

both (Barron et al., 1998).

Consistent with the literature, the students at West High submit a graduation project proposal to their senior English teacher. The proposal informs the teacher of what students plan to do for their project and also includes any limitations students foresee with their topic choices. Some students have a strong support system of family and friends that can help them with supplies and with writing and public speaking to better prepare for the project, but others have limitations. They lack structure and support. Therefore, it is important for schools to provide physical and human resources for those who may need them to succeed in the project requirements.

This study suggests that schools should make available physical and human resources for those students who need them. More teacher assistance is necessary for writing, research, and public speaking. In fact, after school classes with teacher supervision may help seniors work more independently and responsibly on the project. However, prior research indicates finding funding for after school programs may be challenging and may also compete to attract students who have sport teams or part-time work after school (*Financing an Afterschool Program: A Resource Guide*, 2005). Therefore, Graduation Project Committees should refine their programs' vision of the outcomes they hope to achieve and then prepare a budget that lays out the programs' expenses that include the necessary physical and human resources to make the senior project experience a worthwhile graduation requirement.

The senior project graduation requirement is largely an independent effort,

and the students in this study reported that having autonomy to make decisions about their projects gave the projects meaning. A fourth component students identified as essential to the structure of worthwhile senior project programs is the ability to be self-governing and select topics of their choice for research.

Autonomy

Previous studies (Curtis, 2002; Messick, 1995; Preuss, 2002; Shaunessy, 2004) found that senior projects should have meaning for students. The literature (Preuss, 2002) points out that the topic should be challenging and cause students to look at things from a different perspective or lead them to other disciplines of study. While the student may have some knowledge of the selected field, the work should allow the student to expand beyond his or her current knowledge base in order to gain a deeper understanding of the subject matter (Barron et al., 1998). Messick (1995) asserts that when students are allowed to select a topic of interest, performance-based assessments are less stigmatizing and more adaptable to individual student needs.

The results of this study support the literature and indicate that worthwhile senior project programs encourage students to select topics that are meaningful and interesting to them. For example, several students picked topics that involved doing volunteer work to benefit members of the community. Graduation projects reflected students' personal choices and individual interests. Products consisted of direct service to another individual, such as mentoring homeless children, mentoring teens interested in Teen Court, or spending time with the elderly who have limited regular social contact.

Consistent with previous studies (Bordelon & Phillips, 2006; Shaunessy, 2004; Sipe, 2001), volunteering promoted personal satisfaction among students who selected this type of learning experience. Through volunteering, students learned to work within an organization, form relationships, take responsibility, and develop skills. Volunteering involved students firsthand in previously unfamiliar situations and through the activity, negative stereotypes were challenged and insights into social conditions were gained. Students formed personal relationships with others and became personally invested in the success of their mentees; students provided support, guidance, and friendship while helping others in the community. Consistent with the literature (Shaunessy, 2004), volunteering forged interpersonal bonds and created a vital link between the community and the school.

Previous literature finds that students often choose senior project research topics that involve careers students are interested in pursuing (Shaunessy, 2004). Some students' products reflected the time and effort spent completing internships in the areas they hope to pursue as careers. Consistent with the research, their internships resulted in the students making decisions on whether or not to continue to follow their interests in college (Shaunessy, 2004).

The findings suggest that autonomously chosen topics, which are personally valued, appear to help students develop direction and meaning. Topics that are challenging and cause students to look at things from a different perspective allow students to expand beyond their current knowledge base and gain a deeper

understanding of the subject matter.

Documentation

Upon completion of the project, students must demonstrate to the judges that they have a deep understanding of the subject matter. As noted in the literature review (Walther-Thomas & Brownell, 2001), a portfolio is a systematic and selective collection of student work that can show mastery or growth over the course of the project's development. The results of this study suggest that portfolios are essential to the senior project because they catalogue or document tasks; house drafts and the final copy of the research paper; and hold mentor verification forms, mentor logs, and product logs. Portfolios show documentation of students' work efforts and help keep all the papers together that are required for the project. They offer the judges an overview of how the student has grown.

Summary of the Structure of Worthwhile Senior Project Programs

The findings suggest there are four major components that students perceive as the essential structure of worthwhile senior project programs. Worthwhile programs have highly qualified English teachers, mentors, peer coaches, and a graduation project committee who have a vested interest in the program. These programs also have clear and concise project guidelines for students to follow and provide structure, yet they allow students freedom to self-govern and select topics that are meaningful and interesting to research. Worthwhile programs also need to provide the necessary physical and human resources to help ensure students successfully complete the project requirements.

All of the students in this study successfully completed the graduation project but remarked that some requirements were more difficult to complete than others. When asked what was difficult about the project, the students responded that making the product and giving the presentation were the most difficult aspects of the senior project requirements.

What Is Difficult about the Senior Project

The senior project product has to be a physical manifestation of the results of the research and as noted in the literature review (Shaunessy, 2004), is a critical step in the learning process that provides tangible evidence of what has been learned through study and investigation. Students (40%) said the product was difficult for them because they were not artistic and it was very time consuming. Consistent with the findings of perceptual theory (Purkey, 1988), these students viewed themselves as not having the ability to create an aesthetic project, which in turn made them nervous and doubt that they would do well in the judging of the final product.

The findings also suggest that the presentation was difficult for students (40%) because of performance or test anxiety. As noted in the literature review, students from all levels of academic achievement and intellectual abilities can suffer from test anxiety (Lufi, Okasha, & Cohen, 2004). The students in this study included AP English, Honors English, and Academic English students. All 10 participants said they felt anxious about presenting to the judges, knowing that the presentation was a pass or fail grade that determined high school graduation. Some students indicated that they were more nervous

than others to present before the judges. This gives support to previous findings (McDonald, 2001) that test anxiety occurs in varying degrees and can be exhibited differently by individuals.

Although the participants complained that the product and presentation were the most difficult components of the graduation project, the students believe the product and presentation are essential and should not be changed or eliminated from the graduation requirements. The process of production reflects applications of learning, critical-thinking skills, problem-solving skills, teamwork, and personal employability skills, such as responsibility, persistence, and independence (*North Carolina Graduation Project Implementation Guide*, 2007). The oral presentation allows students the opportunity to highlight their work and learning in an area of special interest. The process of preparing for and presenting the project publicly helps students to develop and exhibit communication skills and abilities required beyond high school.

Summary of What Is Difficult about the Senior Project

The graduation project requirements include a research paper, a product, a portfolio, and a presentation. Of the four components, the product and the presentation were recognized by the participants as being the most difficult. Students' reasons for difficulty included the fact that the product was very time consuming to complete and that many viewed themselves as not artistic enough to create an aesthetic product. The presentation was difficult because students were nervous about presenting before the judges. Nonetheless, regardless of their complaints, the participants believe the product

and presentation requirements are essential to a worthwhile graduation project. By making the product and giving the presentation, students used skills and abilities that are needed beyond high school.

Overall the students in this study did not see the graduation project as being that difficult. When asked what was easy about the project, all remarked that the entire project was not that hard because they followed the guidelines that they were provided.

What is Easy about the Senior Project

The findings indicate that the senior project was easy for students because they learned to follow the policies and procedures that were outlined for them by the Graduation Project Committee. Students in this study knew about the project requirements in the ninth grade, and throughout their junior and senior high school years, students were provided with resource materials, such as a handbook, scoring rubrics, and mentor and product logs, to guide them through each phase of the project. In addition, school staff, mentors, peers, and Graduation Project Committee members repeatedly gave students guidance and support to ensure successful project outcomes. As noted in the literature review, Fullan (2000) finds it takes about three to five years for schools to establish reform and to begin to achieve successful change in student performance. At West High School, the senior project requirement has been in place for 10 years. The results suggest that the school has established reform (Fullan, 2000) and continues to build a solid program that makes the senior project a worthwhile graduation requirement and easy for students to follow directions and complete.

Previous studies (Ross, Nunnery, Goldfeder, McDonald, Rachor, Hornbeck, & Fleischman, 2004) found for a senior project graduation requirement to become a worthwhile assessment and really change student outcomes, it must be supported at the onset and through the first few years of implementation by stakeholders. One clear conclusion is that over the 10 years that the program has been in operation at West High, the school and its stakeholders have invested substantial time, effort, and commitment to the program and clearly have defined policies and procedures for students to follow.

Summary of What is Easy about the Senior Project

Overall, the graduation project was not that difficult for the participants in this study. It was easy for students because they followed the policies and procedures outlined for them by the Graduation Project Committee. Following the guidelines helped students become more independent in making decisions and more responsible for their actions concerning the project requirements.

What the Senior Project Does for Students

When participants were asked what the senior project does for students, the number one response was that the project was largely an independent effort that forced students to become responsible for the outcomes of their projects. Students reported that they had to make decisions on their own with regards to a topic choice and what to make for a product. They had to contact mentors and others for assistance and be responsible for maintaining records that documented their time and effort working on the product and with a mentor. Students were proud when they were recognized for their independent

research and work on a topic that they were passionate about.

The participants reported that completing the project improved their written and oral communication skills for college and allowed them to network with members of the community. Taken together, the findings provide support for Hargreaves (1997) who suggests that students should develop eight clusters of abilities within school: (a) thinking critically and making judgments; (b) solving problems and developing plans; (c) performing procedures and demonstrating techniques; (d) managing and developing oneself; (e) accessing and managing information; (f) demonstrating knowledge and understanding; (g) designing, creating, and performing; and (h) communicating.

Students in this study learned to manage their time and efforts because the project was largely an independent assessment that was completed outside of the school day. The findings suggest that students carefully selected a topic that they were interested in for the senior project, accessed and researched information on the topic, managed the information, and critically made judgments as to what was essential to include in their final research papers and presentations to the judges. In designing and creating the product, students solved problems and developed plans for making models, creating display boards, or establishing times for volunteer work or teaching classes. The results indicate when students communicate their findings to the judges, they demonstrate their knowledge and understanding of what they learned in the process. The data provide support for Littky and Grabelle (2004) who found that “exhibitions are the best way to measure learning because they put the kids right in the midst of their learning” and

are “a way for students to have conversations about the things they have learned” (p. 7).

Summary of What the Senior Project Does for Students

The senior project is largely an independent effort that forces students to become responsible for the outcomes of their projects. Working independently helped students make judgments and solve problems on their own and to realize the importance of managing information, time, and tasks. In addition, working independently allowed students to improve their communication skills through networking with members of the community who were experts in the students’ areas of research.

However, one aspect the project did not do for students was scare them as badly as they had anticipated.

What the Senior Project Does Not Do for Students

When participants in this study were asked what the senior project does not do for students, they responded that it was not as frightening as they anticipated it would be. Students in this study said the project was not that scary if only all the teachers did not make such a big deal about it. The students reported that pressure from teachers and their teachers’ comments to pass the project in order to graduate made them feel anxious. This study suggests that teachers’ comments to students and their anxiety for students to succeed may frighten under classmen into believing the project is a “monster” that can be difficult to complete successfully.

The results of the present study replicate previous findings of McDonald

(2001) who suggests that the pressures from teachers on students to excel in testing situations may be the origin of the test anxiety mindset. Supon (2004) notes that anxiety can severely compromise student performance.

The 10 students interviewed for this study came from different academic levels for senior English. All the participants said they were good students and had GPAs ranging from 2.2 to 4.7. These students had positive attitudes about school and were conscientious about their grades and schoolwork. All had plans to continue their education after high school. The results of this study are consistent with previous findings from Purkey and Novak (1996) who said that students who have more positive perceptions of themselves and their abilities are more persistent at school tasks. Although comments and pressure from teachers made the project seem very challenging, these students had a positive self-image and drive to successfully complete the project.

However, students with poor self-concepts who struggle academically may have difficulty with the senior project requirement and give up before completing it. Participants in this study said they knew others who were repeating their senior year. These students did not try very hard and were not really interested in working. Others reported that the pressure from teachers to succeed in order to graduate scared some students so badly that they either dropped out or changed schools just to avoid doing the senior project.

Purkey and Novak (1996) said that those who have poor self-concepts are more likely to give up when faced with difficult situations. When students struggle in school,

their self-esteem and self-concept as well as their attitudes toward school and schoolwork are adversely impacted (Ireson & Hallam, 1999). The literature shows (Fleming, 2004; Schroeder, 2000) that certain students, including members of minority groups, English-language learners, and those in financial need, are disproportionately likely to experience higher attrition rates, higher dropout rates, and higher individual probabilities of dropping out because of rigorous graduation requirements. These students, who most often struggle and fail to meet state minimum requirements in lower grades, are potentially the same students who fail to meet high school graduation requirements (Nichols, 2003).

In practical terms, the findings of this study suggest that if teachers continue to apply excessive pressure on students and make comments that frighten them into believing the project is a difficult “monster,” it may have adverse effects on students. Students’ heightened anxiety about the project may affect the ability to accurately measure the knowledge and comprehension of the material they acquired while doing the project.

Summary of What the Senior Project Does Not Do for Students

This study suggests that pressure from teachers and their comments to pass the project in order to graduate makes under classmen feel anxious and scared into believing the project is a “monster” that can be difficult to complete successfully. While some students reported that actually doing the project was not as difficult as the teachers made it seem it would be, others reported that teachers’ comments had adverse effects on

students and some students even changed schools or dropped out to avoid having to do the project.

Lessons Learned from the Senior Project

The findings of this study suggest that students who complete a senior project may learn the importance of time management and the benefits of following guidelines and planning ahead. While doing the senior project, the students in this study said they learned it is best to follow the directions they are given concerning the project requirements and to use time wisely and not procrastinate. Students said their thinking ahead about possible topics in the freshman year helped in the selection of a final topic in the junior year. In addition, students reported that their teachers' deadlines forced them to organize their time and plan the steps they needed to take in order to meet the requirements of the project.

The results indicate that students often need more time than what they anticipate it will take to complete elements of the project. For example, some students in this study needed more time to finish their research papers because they changed their topics and had to rewrite it. Others made models for products that they said became quite involved and took a lot of time. Some models had to be redone because they broke while they were being made or other materials had to be located and used in order to get the desired end result. These findings suggest that planning ahead and managing time wisely helps when unexpected events occur while trying to meet project deadlines.

Summary of Lessons Learned from the Senior Project

The students in this study believe that the senior project helped prepare them for college and the workplace by teaching them how to follow directions, pace themselves, and plan for the unexpected.

Researcher's Reflections

For this phenomenological study, the researcher followed Creswell's (1998) and Moustakas's (1994) procedures for analyzing the data. Consistent with phenomenological methodology, I set aside, or bracketed, my views of the phenomenon and focused on those views reported by the participants. However, to make more pertinent to practice, what follows is an account of what the researcher concludes from the interview data and document analysis.

The data shows that one of the main reasons students in this study recognized their junior and senior English teachers as being essential to making the senior project a worthwhile graduation requirement was because the English teachers were responsible for overseeing and grading the research papers. Although English teachers are 'writing' teachers and appear a logical choice for overseeing the research paper requirement for graduation project programs, research topics chosen by students can be linked to a content area. For example, Ava wrote a paper on Asian art, Emily wrote a history paper on Willie Lynch, and Ethan did a health-related topic on performance enhancing drugs. Because senior project topics are content specific, the researcher suggests that not just English teachers should be responsible for overseeing and grading the research papers,

but also content area teachers should share the responsibility of grading student papers. Content area teachers should check for content accuracy, and English teachers should grade the papers on conventions, such as sentence formation, usage, and mechanics. Involving content area teachers in scoring the research paper reinforces the belief that writing is important across the curriculum and not a subject-specific skill.

Additionally, the basics of writing need to be better taught in English/Language arts classes and in classes across the curriculum. Students in this study reported that in elementary, middle, and high school English/Language arts classes they received writing instruction to prepare them for the State-mandated writing assessments, but when they were faced with writing the research paper in their junior year, most said they did not have a solid foundation of the fundamental skills needed to write the paper.

Having been a former English/Language arts teacher for over 21 years, the researcher has witnessed that some English teachers are often indifferent about teaching grammar, giving only a review in the first year in high school. Likewise, some content area teachers only grade papers for content and make no corrections or comments on students' papers concerning errors related to the grammar and mechanics of writing. Students will not become better writers until they understand what words do in sentences; until they have knowledge of sentence elements; skill in paragraphing; and know and understand rules of punctuation, grammar, and mechanics. The researcher believes all teachers are teachers of writing and should teach and reinforce these necessary skills which provide the foundation for good writing.

Furthermore, the senior project at West High School requires all students to complete four components: a paper, project, portfolio, and presentation. The scoring rubrics for the paper, product, and presentation are the same for all students except for the length of the research paper. The length of the paper is subject to the student's senior English course level (i.e., Academic English, Honors English, or AP English) and teacher's discretion. Students in Academic English were required to write a 5 to 7 page paper; students in Honors English and Advanced Placement (AP) English were required to write an 8 to 10 page paper.

The researcher believes the graduation project must meet and challenge the academic needs of all learners. Varying the length of the research paper does not equate to meeting these needs. AP English students, such as Matthew did not think the project "was all that much" and would have liked "to see it be more of a capstone project." AP English, by design, is a college-level course and is to be more challenging than Honors and Academic English classes. Students in AP courses should complete graduation project requirements equivalent to the college level.

Finally, the research paper is supposed to require students to develop and demonstrate proficiency in conducting research and writing proficiently and in depth about a topic (*Exit Standards Implementation Guide*, n.d.). From this study, the researcher found that although the AP students' were proficient writers and explored their research topics in depth, papers from Honors and Academic English students lacked proficiency. These papers were grammatically and structurally weak and did not explore

the topic in depth. Most of these papers were between five to eight pages in length which is not a very rigorous requirement even for low-level achievers when you consider that students have two years to complete the final draft. Nonetheless, these papers received grades of As or Bs. Worthwhile senior projects must not set the bar too low. Instead graduation projects must challenge all students with high expectations yet provide them with the support they need to successfully complete the requirements.

Implications for Policy and Practice

The North Carolina high school exit standards outlined in State Board of Education policy HSP-N-004 (16 NCAC 6D .0503) (*North Carolina State Board of Education Policy Manual*, 2006) states that students entering the ninth grade for the first time in the 2006–07 school year and beyond must successfully complete a senior project that is developed, monitored, and scored within the local education agency (LEA) using state-adopted rubrics. The project must consist of four components: a paper, project, portfolio, and presentation that are completed as part of the student's senior year. State policy is clear that there is no one size fits all for implementation. Therefore, it is up to the LEA to decide the logistics of their individual graduation project programs.

If the senior project is to become a worthwhile graduation requirement and really change student outcomes, it must be supported by the school board, the superintendent, teachers, parents, and other stakeholders at the onset and through the first few years of implementation (Ross, Nunnery, Goldfeder, McDonald, Rachor, Hornbeck, & Fleischman, 2004). To help ensure buy in, each district superintendent must make his

or her vision of the senior project a top priority and promulgate the vision throughout the district and among all stakeholders (American Institutes for Research, 2005). He or she must share with stakeholders the data used to guide the reform (Harris & Chrispeels, 2006) and make stakeholders aware that change does not happen over night. Sufficient time must be provided for reform strategies to be mastered by teachers (Ross et al., 2004), advisors, mentors, and graduation project committee members.

Hubbard, Mehan, and Stein (2006) contend that principals also create buy in for reform efforts. Principals must guide teachers and support staff through the reform process and provide extensive ongoing professional development to equip staff with the necessary knowledge and strategies needed for the reform. The district must furnish the necessary resources and technical assistance needed to ensure success of graduation project programs (Ross et al., 2004).

McLaughlin (1987) says that policy success depends critically on two broad factors: local capacity and will. Capacity is something that policy can address. Training can be offered and dollars can be provided; consultants can be engaged to furnish missing expertise.

Policymakers must strive to involve community members and all school faculty and staff when establishing clear and concise guidelines students will follow to complete the project requirements. Inviting community members, business owners, and other stakeholders to informational sessions and acquiring their service on advisory committees for establishing program policy builds support for the program and makes

connections from the school to the community, which can benefit students when it is time to select mentors. From the perspectives of the students, mentors are important for making the senior project a worthwhile graduation experience.

But in addition to mentors, this study indicates that other key people, such as English teachers, peer assistants, and Graduation Project Committee members, are needed to help make a graduation project program worthwhile. Thus, policymakers must establish roles and responsibilities not only for mentors but also for school staff who serve on the Graduation Project Committee, for students who provide peer assistance, and for junior and senior English teachers responsible for helping students with the research paper.

Moreover, this study suggests that policy must stipulate how schools will meet and challenge the educational needs of all students, from Academic English to AP, and provide them with the necessary physical and human resources needed to successfully complete the graduation project. The data indicate such materials as craft supplies and the use of computers and printers must be available at the school for those students who may not be able to afford them or have access to them at home.

Equally important, the results of this study found strong support for the contention that when students are learning through their interests, the work becomes real and has meaning. The data suggest that policymakers need to trust students enough to allow them to help direct their own learning for the graduation project. When students can be passionate about something and tell others about what they know, they show they are

educated about that topic. Policy must allow students the freedom to make decisions about their projects yet provide support and motivation from inspiring adults.

By initiating these policy suggestions, policymakers and proponents can begin to build a graduation project program that makes the senior project experience a worthwhile graduation requirement.

Implications for Future Studies

This study's findings offer additional areas for further research, specifically regarding 1) how the graduation project impacts the graduation rate, 2) how the project helps or does not help with college or work, 3) how perceptions of students who failed to successfully meet the project requirements differ from perceptions of students who met the requirements, and 4) how information from studying the graduation project from other perspectives can extend the findings of this study.

First of all, how the graduation project impacts the graduation rate in North Carolina offers an additional area for further research. Effective with the class entering the ninth grade for the first time in the 2006–07 school year and beyond North Carolina seniors will be required by the state to complete a senior project in order to receive a diploma. To perform a longitudinal study that follows the impact of the graduation project over time should provide valuable data about program organization and graduation rates.

Further, students in this study believe that the senior project helped to prepare them for college or the workforce. However, more research is needed to determine if

the graduation project really does help students with college or work. A follow-up study of the group may determine if their earlier perceptions are still in evidence. The study may result in information regarding the current status of the former students as well as current attitudinal and opinion data concerning their perceptions of the education received from the graduation project and how it did or did not help them with college or the workforce.

Of course this study does not include perceptions of students who failed to meet the graduation project requirements; it only reports perceptions of students who successfully completed the program. This suggests further research is needed to assess the reasons why students failed to meet the program requirements and discover what they perceive as essential to make the senior project experience a worthwhile graduation requirement. The data collected may suggest new areas for improvement within the graduation project program.

Finally, interviewing the students for this research generated information related to others' roles and responsibilities in the graduation project. Studying the perceptions of teachers, principals, mentors, and graduation project advisors might provide further data concerning other aspects of the graduation project requirement.

Conclusion

This study suggests that a combination of factors contributes to what seniors perceive as essential for the senior project experience to be a worthwhile graduation requirement. These factors include essential people who can help motivate and guide

students through the graduation project process. The senior project experience should have guidelines that are detailed, clear, and concise and address the physical and human needs of all learners. Senior graduation programs should encourage and support self-directed learning. Students should have the opportunity to work independently and to learn through their own interests. By completing the senior project, students may learn the importance of time management and the benefits of following guidelines and planning ahead.

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⁵ Consistent with qualitative research, the identity of the data source has been masked.

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APPENDICES

Appendix A

Five End-of-Course Subjects 2002-03 and 2003-04:

All Students

	Algebra I 2004 N	Algebra I 2004 Percent	Biology 2004 N	Biology 2004 Percent	English I 2004 N	English I 2004 Percent	ELP 2003 N	ELP 2003 Percent	US History 2003 N	US History 2003 Percent
Level III/IV Only	88875	79.6	56895	61.3	85551	81.3	62681	69.3	43402	54.9
Level III/IV Plus 1 SEM*	99438	89.0	65842	70.9	92303	87.7	69730	77.1	51226	64.8
Level III/IV Plus 2 SEM*	108533	97.2	78528	84.5	99606	94.6	77531	85.7	61719	78.0
Statewide Total Students	111686		92880		105247		90427		79106	

Level III/IV Only: Student achieved Level III/IV

Level III/IV Plus I SEM: Student achieved Level III/IV or met Level III cut score when 1 SEM added to his/her score

Level III/IV Plus 2 SEM: Student achieved Level III/IV or met Level III cut score when 2 SEM added to his/her score

*SEM is the standard error of measurement. This is the same statistical measure used with the Student Accountability Standards.

Appendix B

Five End-of-Course Subjects
2002-03 and 2003-04:

By Gender

	Algebra I 2004 N	Algebra I 2004 Percent	Biology 2004 N	Biology 2004 Percent	English I 2004 N	English I 2004 Percent	ELP 2003 N	ELP 2003 Percent	US History 2003 N	US History 2003 Percent
Females										
Level III/IV Only	46098	81.6	28526	60.3	44865	86.0	31047	68.2	20637	51.2
Level III/IV Plus 1 SEM*	51244	90.7	33367	70.5	47800	91.6	34900	76.7	24898	61.8
Level III/IV Plus 2 SEM*	55238	97.8	40261	85.1	50494	96.8	39174	86.1	30703	76.2
Statewide Total Students	56506		47296		52164		45491		40316	
Males										
Level III/IV Only	42777	77.5	28369	62.2	40674	76.6	31634	70.4	22765	58.7
Level III/IV Plus 1 SEM*	48194	87.3	32475	71.2	44491	83.8	34830	77.5	26328	67.9
Level III/IV Plus 2 SEM*	53295	96.6	38267	84.0	49098	92.5	38357	85.4	31016	80.0
Statewide Total Students	55179		45583		53068		44936		38790	

Level III/IV Only: Student achieved Level III/IV

Level III/IV Plus 1 SEM: Student achieved Level III/IV or met Level III cut score when 1 SEM added to his/her score

Level III/IV Plus 2 SEM: Student achieved Level III/IV or met Level III cut score when 2 SEM added to his/her score

*SEM is the standard error of measurement. This is the same statistical measure used with the Student Accountability Standards.

Appendix C

Five End-of-Course Subjects 2002–03 and 2003–04;
By Race/Ethnicity

	Algebra I 2004 N	Algebra I 2004 Percent	Biology 2004 N	Biology 2004 Percent	English I 2004 N	English I 2004 Percent	ELP 2003 N	ELP 2003 Percent	US History 2003 N	US History 2003 Percent
American Indian										
Level III/IV Only	953	77.0	511	48.0	1013	73.0	565	59.5	432	43.7
Level III/IV Plus 1 SEM*	1092	88.3	644	60.5	1118	80.5	652	68.7	551	55.7
Level III/IV Plus 2 SEM*	1212	98.0	850	79.8	1268	91.4	754	79.5	701	70.9
Statewide Total Students	1237		1065		1388		949		989	
Asian										
Level III/IV Only	2009	87.2	1398	69.0	1794	84.3	1412	70.9	1143	63.6
Level III/IV Plus 1 SEM*	2150	93.3	1559	77.0	1909	89.7	1563	78.5	1284	71.4
Level III/IV Plus 2 SEM*	2260	98.1	1778	87.8	2029	95.3	1720	86.3	1463	81.4
Statewide Total Students	2304		2025		2128		1992		1798	
Black										
Level III/IV Only	21776	64.7	9973	36.6	21298	68.5	12910	48.2	7043	32.6
Level III/IV Plus 1 SEM*	26938	80.0	13189	48.4	24706	79.5	15882	59.3	9443	43.8
Level III/IV Plus 2 SEM*	31853	94.6	18903	69.4	28401	91.4	19588	73.2	13205	61.2
Statewide Total Students	33661		27227		31078		26775		21579	
Hispanic										
Level III/IV Only	3788	72.3	1796	45.2	3334	63.5	2010	53.2	1105	45.2
Level III/IV Plus 1 SEM*	4494	85.8	2210	55.6	3828	72.9	2362	62.5	1361	55.6
Level III/IV Plus 2 SEM*	5052	96.5	2946	74.1	4536	86.4	2817	74.5	1722	70.4
Statewide Total Students	5236		3975		5251		3779		2447	
White										
Level III/IV Only	58947	87.3	42349	73.9	56729	88.9	44915	80.5	33211	64.5
Level III/IV Plus 1 SEM*	63216	93.6	47254	82.5	59274	92.9	48319	86.6	38027	73.8
Level III/IV Plus 2 SEM*	66465	98.5	52883	92.3	61817	96.9	51611	92.5	43985	85.4
Statewide Total Students	67506		57272		63788		55767		51503	

Level III/IV Only: Student achieved Level III/IV

Level III/IV Plus 1 SEM: Student achieved Level III/IV or met Level III cut score when 1 SEM added to his/her score

Level III/IV Plus 2 SEM: Student achieved Level III/IV or met Level III cut score when 2 SEM added to his/her score

*SEM is the standard error of measurement. This is the same statistical measure used with the Student Accountability Standards.

Appendix D

Percent of 2003–04 Graduates Who Passed All Five EOC Tests

Percent of 2003–04 graduates who passed all 5 EOC tests with either current standards, 1 S.E.M. or 2 S.E.M. by Race/Ethnicity compared with current graduates

Race/Ethnicity	Graduates 2003–04	Passed		1 S.E.M.		2 S.E.M.	
		%	N	%	N	%	N
ALL	71,703	39.3	28,189	66.8	47,928	75.8	54,365
American Indian	878	28.8	253	60.8	534	76.4	671
Asian	1,596	43.0	688	64.0	1,022	71.4	1,140
Black	18,815	18.1	3,415	52.0	9,790	69.1	13,007
Hispanic	2,285	23.3	532	45.2	1,032	53.1	1,213
Multiracial	731	36.3	265	62.9	460	69.1	505
White	47,398	48.6	23,036	74.0	35,090	79.8	37,829

Percent of 2003–04 graduates in LEAs* requiring passing scores who passed all 5 EOC tests on first attempt with either the current standards, 1 S.E.M. or 2 S.E.M. by Race/Ethnicity compared with current graduates

Race/Ethnicity	Graduates 2003–04	Passed		1 S.E.M.		2 S.E.M.	
		%	N	%	N	%	N
ALL	2,320	51.8	1,202	77.4	1,796	83.2	1,930
American Indian	6	50.0	3	83.3	5	100	6
Asian	24	54.2	13	70.8	17	79.2	19
Black	170	23.5	40	62.9	107	72.4	123
Hispanic	57	28.1	16	49.1	28	52.6	30
Multiracial	19	42.1	8	68.4	13	73.7	14
White	2,044	54.9	1,122	79.5	1,626	85	1,738

* These LEAs were reported as having to pass the test to pass the course requirement in a survey of LEAs using EOC as more than 25% of the final grade: Buncombe, Haywood, Polk, Transylvania, and Thomasville

Appendix E

Students with Disabilities (only)

Percent of 2003–04 Students with Disabilities graduates who passed all 5 EOC tests with either the current standards, 1 S.E.M. or 2 S.E.M. by Race/Ethnicity compared with current graduates

Race/Ethnicity	Graduates 2003–04	Passed		1 S.E.M.		2 S.E.M.	
		%	N	%	N	%	N
ALL	5,253	11.2	587	33.6	1,767	51.3	2,693
American Indian	72	4.2	3	22.2	16	37.5	27
Asian	34	14.7	5	35.3	12	52.9	18
Black	1,679	3.2	53	17.8	299	38.6	648
Hispanic	93	6.5	6	31.2	29	40.9	38
Multiracial	38	15.8	6	50.0	19	65.8	25
White	3,337	15.4	514	41.7	1,392	58	1,937

Appendix F

Proposals for Implementing the New High School Exit Standards

Current High School Graduation Requirements and Exit Standards

Current state graduation requirements are outlined in State Board of Education (SBE) policy

HSP-N-004 (16 NCAC 6D .0503).⁷ Students must meet the following requirements:⁸

1. attain passing scores on competency tests adopted by the SBE per GS 115C-174.11 and administered by the LEA;
2. successfully complete 20 course units in grades 9–12 (22 course units for Occupational Course of Study);
3. successfully complete one of the four courses of study: Career Preparation, College Technical Preparation, College/University Preparation, or Occupational Course of Study; and
4. demonstrate computer proficiency.

In order to graduate and receive a high school diploma, public school students shall meet state and local requirements.

Currently, students following the Occupational Course of Study (OCS) are not required to pass the competency tests or the computer skills tests. Per State Board of Education policy HSP-N-004 (16 NCAC 6D .0503), a student following the OCS must meet the computer proficiency standard as stated in the student's current IEP.

New High School Graduation Requirements and Exit Standards

In October 2004 the North Carolina State Board of Education (SBE) approved using performance on the five required end-of-course (EOC) assessments and a senior project⁹ as the framework for the new High School Exit Standards. The SBE also charged the Ad

⁷ Policy can be retrieved at <http://sbepolicy.dpi.state.nc.us/policies/HSP-N-004.asp?pri=01&cat=N&pol=004&acr=HSP>

⁸ Special needs students as defined by G.S. §115C-109, excluding gifted and pregnant, who do not meet the requirements for a high school diploma shall receive a graduation certificate and shall be allowed to participate in graduation exercises if they meet the following criteria: completion of all IEP requirements and the successful completion of 20 course units by general subject area (4 English, 3 math, 3 science, 3 social studies, 1 health and physical education, and 6 local electives). These students are not required to pass the specifically designated courses such as Algebra I, Biology or U.S. History.

⁹ The five required EOC assessments are Algebra I, Biology, English I, Civics and Economics, and U.S. History. The senior project is a performance-based component that will be developed, monitored, and scored locally using state adopted rubrics. The senior project can include service-based learning or work-based learning experiences.

Appendix F (continued)

Hoc Academic Rigor Committee to work with staff and constituents to develop the proposed framework details and a timeline for implementation.

Implementing these new exit standards would require changes to State Board of Education policy HSP-N-004 (16 NCAC 6D .0503) and amendments to GS §115C-174.11 (b).

The new exit standards will replace the competency test requirement specified in SBE policy HSP-N-004 (16 NCAC 6D .0503 (a)). However, the new exit standards will not replace the 20 course requirements for students following the Career Preparation, College Technical Preparation, and College/University Preparation courses of study or the computer proficiency requirement.

The details of the framework for the new exit standards approved by the SBE will address the following:

1. meeting the EOC assessments requirement involving the five required end-of-course assessments (Algebra I, Biology, English I, Civics and Economics, and U.S. History) and a senior project (which can include service-based learning or work-based learning experiences)
2. a review process (including retesting and remediation opportunities)
3. special considerations for students enrolled in the Occupational Course of Study
4. special considerations for students transferring into the North Carolina public school system

1. Meeting the End-of-Course (EOC) Assessments and Senior Project Components

The EOC component consists of passing assessments in Algebra I, Biology, English I, Civics & Economics, and U.S. History. Due to the high stakes for students, the State Board of Education will credit students for passing an end-of-course (EOC) assessment for meeting the exit standards if their score, plus one standard error of measurement (SEM) is at or above Level III on the respective EOC assessment. Using a SEM will provide students with a margin of error as a safeguard for attaining proficiency. The senior project is a performance-based component that can include service-based learning or work-based learning experiences. Students will be required to meet a minimum score on the state adopted rubric to meet the senior project requirement. The NCDPI will adopt rubrics based on those developed by Career and Technical Preparation and Southeastern Regional Vision for Education (SERVE) that are already being used throughout the state.

Exit Standards Proposal 1: Students should be required to pass **all five** required EOC assessments (Algebra I, Biology, English I, Civics and Economics, and U.S. History) and

Appendix F (continued)

the senior project. The senior project will be developed, monitored, and scored at the local level using rubrics developed or endorsed by the NCDPI.

***Issue:** In 2003-04, 50.8 % of North Carolina high school graduates attained a Level III or above (with 1 SEM*) on all five required EOC tests.*

Exit Standards Proposal 2: Students should be required to pass at **least four out of five** required EOC assessments (Algebra I, Biology, English I, Civics and Economics, and U.S. History) and the senior project. The senior project will be developed, monitored, and scored at the local level using rubrics developed or endorsed by the NCDPI.

***Issues:** In 2003-04, 69.5 % of North Carolina high school graduates attained a Level III or above (with 1 SEM*) on at least four out of the five required EOC tests.*

Requiring 4 out of the 5 required end-of-course tests allows for flexibility so that students can maximize their academic strengths.

Four out of the five EOC assessments are generally offered at the 9th and 10th grade level.

Two of the five EOC assessments are in social studies and only one EOC assessment is required for each of the other disciplines.

If students have already passed four out of the five assessments, they may not take the last assessment seriously.

* These data reflect the application of a uniform SEM for the EOC and not an SEM unique to each student's score.

Senior Project

The senior project will be developed, monitored, and scored at the local level using the state adopted rubrics. The senior project requirement can include components of the following, if approved locally: portfolio requirements in career and technical education; co-curricular competitive events, such as projects associated with the participation in the *Future Business Leaders of America (FBLA)*, Intel Science Talent Search (formerly known as Westinghouse Scholars), etc.

Appendix F (continued)

The NCDPI will adopt rubrics based on those developed by Career and Technical Prep and Southeastern Regional Vision for Education (SERVE) that are already being used throughout the state.

Appropriate divisions within the agency will work together to identify additional examples of how this requirement can be met.

2. Retesting and Review Process (including remediation opportunities)

State Board of Education policy HSP-N-005¹⁰ (16 NCAC 6D .0504) describes the review procedures for promotion requests. This policy refers to gateways at grades 3, 5, and 8 in reading and mathematics. Making minor changes to the policy so that it addresses end-of-course assessments in addition to end-of-grade assessments will permit the state to use the existing policy rather than create a new policy. The review process is another safeguard for students.

General Overview of the Proposed Retesting and Review Process:

- The student takes the regularly scheduled end-of-course assessment.
- If a student passes the course and fails the assessment, the student is administered a retest within a reasonable time from the receipt of test results.
- If the student does not pass the retest, the student receives focused intervention/remediation (tutorial sessions, extended school day, Saturday school, summer school instruction, etc.).
- The second retest occurs.
- If the student does not pass the second retest, documentation of the student's performance in the EOC course is placed on file.
- The student's documentation is reviewed by an external review committee to determine if the exit standards have been met.
- The principal makes the final decision for meeting the exit standards.

Retesting Proposals:

Retesting can only occur if a student passed the course but did not pass the assessment.

Retesting Proposal 1: Consistent with the current retesting opportunities for end-of-grade assessments at grades 3, 5, and 8, students should be given a maximum of two retest opportunities. The second retest opportunity must be preceded by focused intervention/remediation.

¹⁰ Policy can be retrieved at <http://sbepolicy.dpi.state.nc.us/policies/HSP-N-005.asp?pri=01&cat=N&pol=005&acr=HSP>

Appendix F (continued)

Retesting Proposal 2 Consistent with the current retesting opportunities for the competency and computer skills assessments, students should be given at least one retest opportunity per year. Each retest opportunity must be preceded by focused intervention/remediation.

Review Process Proposals:

In each of the following review process proposals, retesting can only occur if a student passed the course but did not pass the assessment.

Review Process Proposal 1: On a course-by-course basis, if a student does not meet the passing criteria for the EOC assessment but passes the course, the review of the student's documentation begins after the second retest.

Review Process Proposal 2: If a student does not pass an EOC assessment but passes the course, interim reviews will take place throughout the student's high school experience and a final review of documentation related to all the EOC assessments that were not passed occurs in the senior year.

Issues: If a student does not meet the course requirement but passes the assessment, the student must meet the course requirement which will include retaking the test regardless of the previous score because the EOC assessment must count at least 25% of the final course grade. However,

the previous score on the EOC assessment can be used to meet the exit standard. Special consideration must be given to ensure that the policies do not violate the rights of EC and LEP students.

Procedures will need to be developed for retesting students on alternate assessments.

3. Occupational Course of Study (OCS)

OCS Proposal: Students following the Occupational Course of Study are required to meet rigorous exit standards as outlined in State Board of Education policy HSP-N-004 (16 NCAC 6D .0503). Therefore the new exit standards will only apply to students following the Career Preparation, College Technical Preparation, or College/University Preparation courses of study.

Appendix F (continued)

4. Transfer Students

Transfer Students and EOC Proposal: If a student transfers into a North Carolina public high school and the principal awards the student credit for a course associated with one of the five required end-of-course assessments, the student does not need to pass that EOC assessment. If the student is not awarded credit for the course, the student must pass the course and pass the EOC assessment.

Transfer Students and Senior Project Proposal: All students, including transfers, must complete the senior project. However, special consideration must be given to transfer students arriving in the second semester of the senior year. If a student transfers in the second semester of the senior year, the LEA should adjust the scope of the project based on the time available to the student to complete the project. The senior project can include information or material previously used by the student in another state or private school.

Issues: What will be the nature of the project for students who transfer in during the second semester?

Financial Impact of Remediation

Resources to handle remediation will be needed. A resource published by the NCDPI includes strategies for funding school initiatives. The report can be found at http://www.ncpublicschools.org/student_promotion/funding.pdf.

Timeline for Implementation

October 2004: The SBE approved the frameworks for the new Exit Standards. Input sessions with stakeholders were held. Stakeholders provided feedback regarding the proposals outlined in this document. The NCDPI used the feedback to revise this document and refine the implementation proposals.

November 2004 – January 2005: An online survey will be posted on various education list-serves and will be e-mailed to various education organizations, instructional staff, exceptional children staff, superintendents, and parent and business advisory groups. The results of the survey will provide the NCDPI with feedback regarding the implementation proposals. Six regional meetings will be scheduled to provide stakeholders the opportunity to offer feedback.

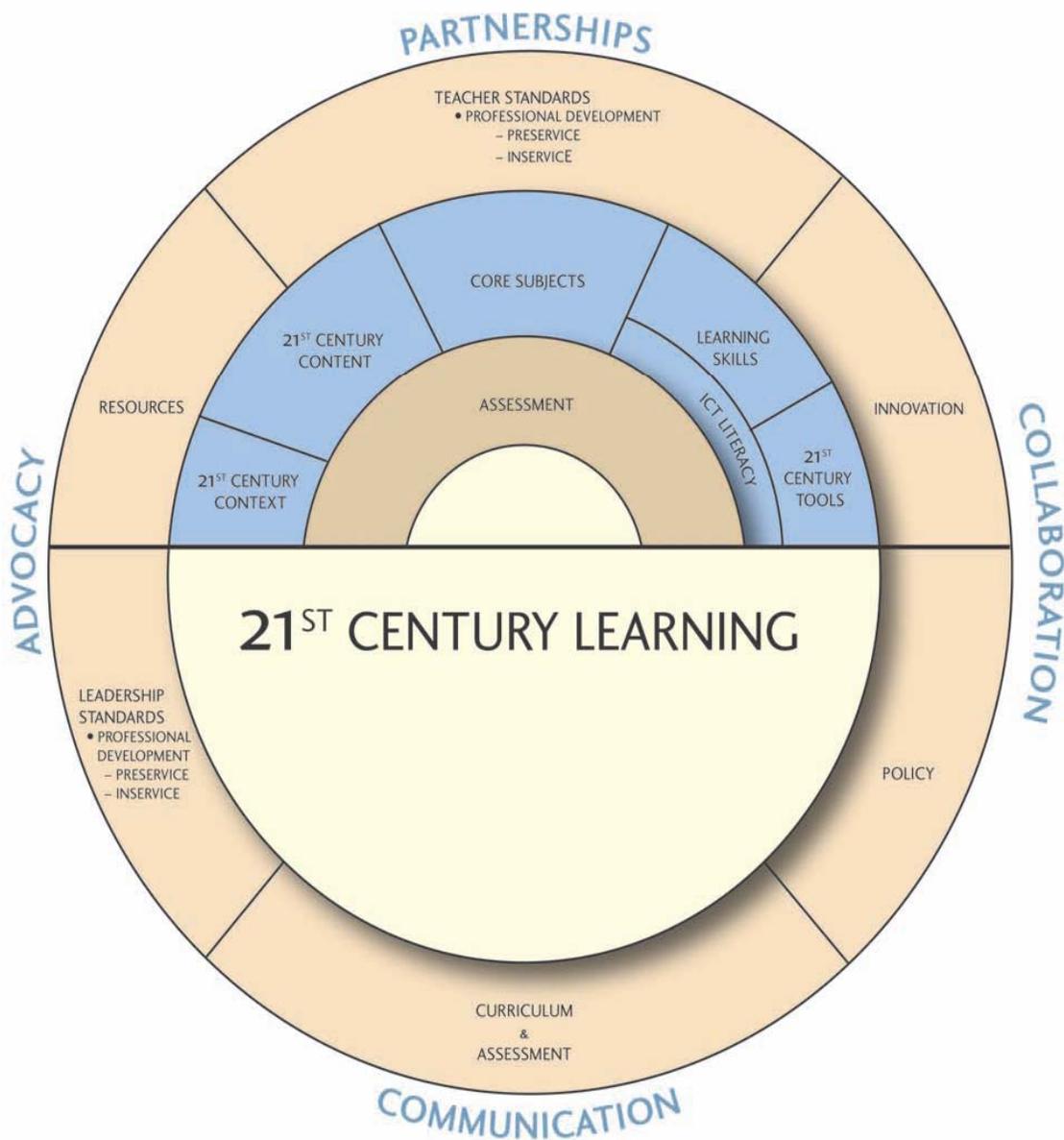
February 2005: The NCDPI will recommend an implementation plan to the State Board of Education for discussion in February and approval in March. Students entering the ninth grade for the first time in 2006–07 will be required to meet the new exit standards.

Appendix F (continued)

These proposals were developed in cooperation with members of the Division of Exceptional Children, Division of Secondary Education (formerly Instructional Services Division), and the Division of Accountability Services. The meetings were held on October 8, October 11, October 26, and November 2, 2004.

Appendix G

21st Century Learning



Appendix G (continued)

KEY ELEMENTS OF 21st CENTURY LEARNING

Core Subjects

- English/Language Arts
- Mathematics
- Science
- Social Studies
- Second Languages
- Arts

21st Century Content

- Global Awareness
- Financial, Business, Economic, and Entrepreneurial Literacy
- Civic Literacy
- Health and Wellness

21st Century Context

- Relevant Real-World Examples
- Applications, Settings and Connections to Real-World

Learning Skills

- Information and Communication Skills
- Thinking and Problem Solving Skills
- Interpersonal and Self-Directional Skills

21st Century Tools

- Information and Communication Technologies
- Audio, Video and other Media/Multimedia Tools

Information Communication Technologies (ICT) Literacy

- Use of Technology to Learn and Develop Knowledge and Skills

21st Century Assessments

- High Quality Standardized Tests
- Effective Classroom Assessments
- Use of Information Technologies

Reference: Partnership for 21st Century Learning. *Learning for the 21st Century: A Report and MILE Guide for 21st Century Skills, 2003*. Available at http://www.21stcenturyskills.org/images/stories/otherdoc/P21_Report.pdf.



Public Schools of North Carolina
 State Board of Education
 Department of public instruction

Appendix H

Definitions for Graduation Project Rubric Descriptors (Product)

Exemplary—Students performing at this level perform all components at a superior level beyond the level which is required for proficiency. Exemplary work implies that the student has exceeded expectations in every way and has presented a model Graduation Project worthy of showcasing and emulating.

Satisfactory—Students performing at this level perform all components at a consistent level and demonstrate acceptable proficiency. Satisfactory work implies that the student has worked diligently to do strong work on all components and has presented a worthy Graduation Project.

Developing/Emerging—Students performing at this level have not shown sufficient proficiency in all components and have not achieved adequate proficiency. Developing/emerging work implies that the student has more work to do to present satisfactory work in order to complete the Graduation Project.

Resubmission Necessary—Students performing at this level have not achieved proficiency in all components and have not met the minimum standards for completion of the Graduation Project. Resubmission implies that the student has considerable work to do to complete the Graduation Project and is in need of coaching in order to do so.

Appendix H (continued)

North Carolina Public Schools' Graduation Project Rubric —Product Component—



	Exemplary	Satisfactory	Developing/ Emerging	Resubmission Necessary	Not Submitted
Time (A minimum of _____ hours are strongly recommended for the product.)	Exceeds number of recommended hours.	Meets number of recommended hours.	Does not meet number of hours required.	Shows evidence of little to no hours invested.	Failed to develop project.
	Demonstrates effective time management.	Demonstrates sufficient use of time management.	Demonstrates minimum use of time management.	Demonstrates no use of time management.	
Learning Stretch & Depth of Knowledge	Chooses a challenging product representing a significant learning stretch.	Chooses a product representing a sufficient learning stretch.	Chooses a product representing a limited learning stretch.	Chooses a product with no learning stretch.	Failed to develop project.
	Demonstrates a logical and relevant link to the research topic.	Demonstrates an adequate and relevant link to the research topic.	Demonstrates a minimal link to research topic.	Shows no link to the research topic.	
	Demonstrates critical analysis of research in producing an original product.	Demonstrates reasonable evaluation of research in producing an original product.	Demonstrates limited understanding of research in producing original product.	Demonstrates no understanding of research in producing original product.	
	Demonstrates significant creative thinking, decision-making, reasoning, and/or problem-solving.	Demonstrates sufficient creative thinking, decision-making, reasoning, and/or problem-solving.	Demonstrates limited creative thinking, decision-making, reasoning, and/or problem-solving.	Demonstrates no evidence of creative thinking, decision-making, reasoning, and/or problem-solving.	
	Demonstrates extensive connection to real-world situations.	Demonstrates sufficient connection to real-world situations.	Demonstrates limited connection to real-world situations.	Demonstrates no connection to real-world situations.	

Appendix I

Definitions for Graduation Project Rubric Descriptors (Paper)

Exemplary—Students performing at this level perform all components at a superior level beyond the level which is required for proficiency. Exemplary work implies that the student has exceeded expectations in every way and has presented a model Graduation Project worthy of showcasing and emulating.

Satisfactory—Students performing at this level perform all components at a consistent level and demonstrate acceptable proficiency. Satisfactory work implies that the student has worked diligently to do strong work on all components and has presented a worthy Graduation Project.

Developing/Emerging—Students performing at this level have not shown sufficient proficiency in all components and have not achieved adequate proficiency. Developing/emerging work implies that the student has more work to do to present satisfactory work in order to complete the Graduation Project.

Resubmission Necessary—Students performing at this level have not achieved proficiency in all components and have not met the minimum standards for completion of the Graduation Project. Resubmission implies that the student has considerable work to do to complete the Graduation Project and is in need of coaching in order to do so.

Appendix I (continued)

North Carolina Public Schools' Graduation Project Rubric —Paper Component—

		 Successful Completion		 Has Not Completed		
		Exemplary	Satisfactory	Developing/ Emerging	Resubmission Necessary	Not Submitted
Focus		Presents an insightful and focused thesis statement.	Presents a thesis statement with adequate insight and focus.	Presents a thesis statement with mini-mal insight and focus.	Presents a thesis statement with no insight or focus.	
		Draws strong and clear connections between the thesis and significant related ideas.	Draws adequate connections between thesis and related ideas.	Draws insufficient connections between thesis and related ideas.	Shows no understanding of connections between thesis and related ideas.	
Organization		Effectively provides a logical progression of related ideas and supporting information in the body of the paper.	Adequately provides a progression of ideas and supporting information in the body of the paper.	Provides a poorly organized progression of ideas and supporting information in the body of the paper.	Does not provide a progression of ideas and supporting information in the body of the paper.	
		Effectively uses transitions to connect supporting information clearly.	Adequately uses transitions to connect supporting information.	Ineffectively uses transitions to connect supporting information.	Does not use transitions to connect supporting information.	
		Arrives at a well-documented, logical conclusion, involving critical thinking.	Arrives at an adequately-documented conclusion.	Arrives at an insufficiently documented conclusion.	Does not arrive at a documented conclusion.	
Support/ Elaboration		Effectively synthesizes complex ideas from research sources.	Sufficiently synthesizes ideas from research sources.	Ineffectively synthesizes ideas from research sources.	No evidence of synthesizing ideas from research sources.	
		Demonstrates exceptional selection of supporting information clearly relevant to the thesis and its related ideas.	Demonstrates sufficient selection of supporting information clearly relevant to the thesis and its related ideas.	Demonstrates insufficient selection of supporting information clearly relevant to the thesis and its related ideas.	Lacks supporting information clearly relevant to thesis and its related ideas.	
		Provides a meaningful presentation of multiple perspectives.	Provides an adequate presentation of multiple perspectives.	Provides a limited presentation of multiple perspectives.	Does not present multiple perspectives.	
		Effectively balances use of quotations and student paraphrasing.	Adequately balances use of quotations and student paraphrasing.	Insufficiently balances use of quotations and student paraphrasing.	Does not balance use of quotations and student paraphrasing.	
		Skillfully integrates student-generated visual aids (i.e., diagrams, charts, graphs, pictures, graphic organizers) to emphasize important content.	Effectively integrates student-generated visual aids (i.e. diagrams, charts, graphs, pictures, graphic organizers) to clarify content.	Includes student-generated visual aids (i.e., diagrams, charts, graphs, pictures, graphic organizers) to clarify content.	Shows no use of student-generated visual aids (i.e., diagrams, charts, graphs, pictures, graphic organizers) to clarify content.	FAILS TO submit paper.

Appendix J

Definitions for Graduation Project Rubric Descriptors (Portfolio)

Exemplary—Students performing at this level perform all components at a superior level beyond the level which is required for proficiency. Exemplary work implies that the student has exceeded expectations in every way and has presented a model Graduation Project worthy of showcasing and emulating.

Satisfactory—Students performing at this level perform all components at a consistent level and demonstrate acceptable proficiency. Satisfactory work implies that the student has worked diligently to do strong work on all components and has presented a worthy Graduation Project.

Developing/Emerging—Students performing at this level have not shown sufficient proficiency in all components and have not achieved adequate proficiency. Developing/emerging work implies that the student has more work to do to present satisfactory work in order to complete the Graduation Project.

Resubmission Necessary—Students performing at this level have not achieved proficiency in all components and have not met the minimum standards for completion of the Graduation Project. Resubmission implies that the student has considerable work to do to complete the Graduation Project and is in need of coaching in order to do so.

Appendix J (continued)

**North Carolina Public Schools' Graduation Project Rubric
—Portfolio Component—**



	Exemplary	Satisfactory	Developing/ Emerging	Resubmission Necessary	Not Submitted
Format/ appearance	Adheres to all guidelines for portfolio appearance.	Adheres to most guidelines for portfolio appearance.	Adheres to some guidelines for portfolio appearance.	Does not adhere to guidelines for portfolio appearance.	Failed to submit portfolio.
Organization	Exhibits exceptional organizational skills in compilation of portfolio.	Exhibits sufficient organizational skills in compilation of portfolio.	Exhibits minimal organizational skills in compilation of portfolio.	Exhibits no organizational skills in compilation of portfolio.	Failed to submit portfolio.
Completeness	Meets all requirements for portfolio contents.	Meets most requirements for portfolio contents.	Meets some requirements for portfolio contents.	Does not meet requirements for portfolio contents.	Failed to submit portfolio.
Student Growth	Demonstrates exceptional depth in academic and/or personal growth.	Demonstrates sufficient depth in academic and/or personal growth.	Demonstrates limited depth in academic and/or personal growth.	Does not demonstrate depth in academic and/or personal growth.	Failed to submit portfolio.
Student Reflection	Reveals exceptional insight into how the student anticipated changes and dealt with contingencies.	Reveals sufficient insight into how the student anticipated changes and dealt with contingencies.	Reveals limited insight into how the student anticipated changes and dealt with contingencies.	Reveals no insight into how the student anticipated changes and dealt with contingencies.	Failed to submit portfolio.
Information, Technology, and Communica-tions Literacy	Effectively employs technology in construction of portfolio.	Sufficiently employs technology in construction of portfolio.	Minimally employs technology in construction of portfolio.	Employs no technology in construction of portfolio.	Failed to submit portfolio.

Appendix K

North Carolina State University INFORMED CONSENT FORM for RESEARCH

Title of Study: Student Perceptions of the Senior Project Graduation Requirement

Principal Investigator: Nancy Carolan

Faculty Sponsor (if applicable)

We are asking you to participate in a research study. The purpose of this study is to understand what high school seniors perceive as essential for the senior project experience to be a worthwhile graduation requirement.

INFORMATION

If you agree to participate in this study, you will be asked to participate in an interview and to share with the researcher documents you created for your senior project. The interview will be tape-recorded and last for approximately one hour. You will be interviewed once; however, follow-up communication through email correspondence will be conducted, if necessary, to expand on your prior responses and to pursue information provided by other sources. The document analysis for this study will not require your presence.

RISKS

To lessen any possible discomfort you may experience during the interview process, the interview will occur at your school and be scheduled at your convenience. Interviews will not be scheduled during instructional time. In addition, you may decline to participate or terminate the interview at any time if you feel uncomfortable answering the questions.

BENEFITS

The information from this study examines how North Carolina high school seniors perceive the senior project graduation requirement. This study will provide teachers and educators with students' suggestions on ways to plan and implement the senior project requirement in schools and will provide information on the experiences and conditions students perceive as necessary in order to help them successfully complete the senior project.

CONFIDENTIALITY

The information in the study records will be kept strictly confidential. Data will be stored securely in a locked cabinet at the researcher's home. No reference will be made in oral or written reports which could link you to the study. All identifying information will be removed and the tape-recording will be deleted at the conclusion of the study. The researcher has an obligation to inform the proper officials if you indicate you are planning to harm yourself or you are being harmed by someone if you are under 18 years of age.

CONTACT

If you have questions at any time about the study or the procedures, you may contact the researcher, Nancy Carolan, at ncarolan@nc.rr.com, or 919-858-9030. If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. David Kaber, Chair of the NCSU IRB for the Use of Human Subjects in Research Committee, Box 7514, NCSU Campus (919/515-3086) or Mr. Matthew Ronning, Assistant Vice Chancellor, Research Administration, Box 7514, NCSU Campus (919/513-2148)

PARTICIPATION

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed your data will be returned to you or destroyed at your request.

CONSENT

"I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may withdraw at any time."

Subject's signature _____ Date _____

Investigator's signature _____ Date _____

Parent's/Guardian's/Legal Representative's signature _____ Date _____

Appendix L

INTERVIEW GUIDE

Participant Name:

Participant ID Number:

School Name:

Senior Project Topic:

1. What is your age, race, GPA, and what course of study are you following—Career Preparation, College Technical Preparation, or College University Preparation?
2. How would you describe yourself as a student in relation to academic performance and involvement in school-related activities?
3. How long have you been a student in this high school?
4. How did you select your topic for the senior project and why?
5. Is this topic important or of interest to you?
6. When did you first begin work on the senior project?
7. Describe the different components of your project.
8. What was difficult or easy about each component of the project?
9. Who are the people that helped you the most with the project, and how did they provide assistance to you?
10. What do you believe the senior project did for you?
11. What did the senior project not do for you?
12. What, if anything, do you think you learned from doing the senior project?
13. From your perspective, what do you think is essential for high schools to have in place in order to have worthwhile senior project programs?
14. Is there anything else you want to tell me about the senior project?

Appendix M

DOCUMENT SUMMARY FORM

Participant Name _____

Participant ID Number _____

Name or Description of Document:

Research Paper _____ Product _____ Portfolio _____

Significance or importance of document:

Summary of contents:

Reflective Commentary:

Appendix N

Choosing a Topic

Complete the following list of general categories and suggested topics by generating three different ideas that appeal to you for each category. Utilize the examples in parenthesis as a guideline to brainstorm topics for your research.

1. fine and performing arts (e.g., music, dance);
a. _____ b. _____ c. _____
2. health and physical fitness (e.g., steroids, diet);
a. _____ b. _____ c. _____
3. business (e.g., entrepreneurship, advertising);
a. _____ b. _____ c. _____
4. travel (e.g., vacations, explorations);
a. _____ b. _____ c. _____
5. careers (e.g., schooling, job market research);
a. _____ b. _____ c. _____
6. social issues (e.g., poverty, education);
a. _____ b. _____ c. _____
7. photography/film (e.g., movie making, black and white photography);
a. _____ b. _____ c. _____
8. math/science (e.g., automation, robotics);
a. _____ b. _____ c. _____
9. literature/writing (e.g., writing a novel, contemporary writer);
a. _____ b. _____ c. _____
10. sports/recreation (e.g., scuba diving, effects of Title IX);
a. _____ b. _____ c. _____
11. home economics (e.g., trends in diet/cooking, interior design);
a. _____ b. _____ c. _____
12. technical arts (e.g., cabinetry, metal products);
a. _____ b. _____ c. _____
13. education (e.g., achievement gap, funding);
a. _____ b. _____ c. _____
14. visual arts (e.g., digital art, stained glass);
a. _____ b. _____ c. _____
15. religion/philosophy (e.g., existentialism, religions and war);
a. _____ b. _____ c. _____
16. specialized hobbies (e.g., coins, car restoration);
a. _____ b. _____ c. _____
17. space (e.g., exploration, space stations);
a. _____ b. _____ c. _____
18. social studies (e.g., historical study, rescue missions);
a. _____ b. _____ c. _____
19. nature/ecology (global warming, habitats)
a. _____ b. _____ c. _____
20. other ideas
a. _____ b. _____ c. _____

Appendix N (continued)

Analyzing Topic Selection

Now that you have generated several ideas that you might possibly pursue, you need to begin evaluating your lists for how they lend themselves to different aspects of the Graduation Project. Circle/highlight any topic that:

1. Will have a **good supply of information and variety of resources** (books, articles in periodicals, Web site, interviews, etc.)
2. Will lend itself to a **product that is valid, useful, and relevant**—jot down product ideas as they occur to you!
3. Will be affordable—consider both time and money.
4. Will **stretch** your knowledge and experience. (“You will never grow unless you go beyond what you have already mastered.”)
5. Will give you a taste of a possible career.
6. Will maintain your interest for at least **two (2) years**.
7. Will allow you to take a stand on the topic (you have to decide whether or not the topic has a negative/positive impact, insignificant/great influence, etc.)
8. You will know someone who can mentor you through this research.

Appendix O

Student Checklist for Research Paper

Attach this document to your paper. I WILL NOT accept your paper without a completed checklist. **Bonus:** Have someone else read this with you and go over each point. Your reader should initial each point that is evident in the paper.

Introductory Paragraph

- Include the Essential Question rewritten as a declarative thesis statement; it is usually the last sentence.
- Include one to three sentences articulating the general overview of the research.

Body Paragraphs

- Follows the order of the outline
- Provides specific support from reputable sources
- Each paragraph begins with a topic sentence that is a transition from the previous paragraph
- Each point in the paragraph supports and references the topic sentence
- Points are supported with specific source references/citations—two to three per paragraph
- Quotations are correctly cited and tagged/introduced
- Data and other pieces of evidence are properly cited
- Anecdotes are used in conjunction with empirical evidence

Conclusion

- Supports, reiterates, and summarizes the thesis
- Leaves the reader with a memorable final point or strong impression of the writer's evaluation

Citations

- Includes an alphabetized Works Cited with complete and accurate citation entries
- Includes a minimum of five sources: three different types (book, online, periodicals, interview...)
- Each paragraph contains two to three citations, either parenthetical or tagged

Grammar, Mechanics, Organization

- Checked for proper *capitalization*, especially of all proper nouns
- Checked for proper *spelling*
- All *numbers* at the beginning of a sentence are written out
- Avoids excessive use of *passive voice* in favor of *active verbs* (“She had brought the treats for the class.” Should read: “She brought the treats...”)
- Avoid *split infinitives* (“to once again put” Should read: “once again to put” or “to put once again”)
- *Pronouns* and *antecedents* agree in number and person and are clearly identified (“The student brought *their* homework...” Should read: “The student brought his homework...”)
- Avoids *redundancy* in words, phrases and ideas (e.g., the same major word used twice in a sentence)
- Avoids *awkward phrasing*
- Related thoughts are grouped into *paragraph* of reasonable length
- It is obvious that the writer sought *streamlining* and *simplification*
- Provides *elaboration* and *explanation* of unfamiliar or unclear ideas or references
- Properly punctuated quotations
- Uses proper format for lengthy quotes
- Avoids abbreviations and contractions
- Uses proper format for dates
- Avoids first-person construction

Format

- 12-point font, Times New Roman
- One-inch margins on top, bottom, left, and right
- Is the assigned number of pages (5–7) in length
- Is properly paginated (top right with last name only)

Appendix P

SCORING RUBRIC FOR SENIOR GRADUATION PAPER

Name _____ Class Period _____

	Excellent (error free) 10	Good 9	Satisfactory 8	Needs Improvement 7	Not Evident or Unacceptable 6
MLA Formatting: <ul style="list-style-type: none"> • Pagnation • Margins • Font size and type 					
MLA Documentation (score twice): <ul style="list-style-type: none"> • Internal citations correct and sufficient in number • Internal citations match Work Cited (WC) entries • WC entries formatted correctly and are sufficient 					
Information/thesis: <ul style="list-style-type: none"> • Has an obvious thesis • General statements which capture the overall essence of the research • Is interesting or provocative 					
Organization, coherence, unity: <ul style="list-style-type: none"> • Each paragraph begins with a clear topic sentence that supports the thesis • Specific details support the topic sentence • There are clear transitions between sentences • There are clear paragraph transitions • Author's own words are combined with sources 					
Content (scores twice): <ul style="list-style-type: none"> • The evidence in the paper obviously and clearly supports the Thesis/Essential Question • The paper displays in depth analysis • The evidence to support the thesis is credible and shows a balanced combination of empirical and anecdotal evidence 					
Conclusion: <ul style="list-style-type: none"> • References the other paragraphs • Supports and summarizes the thesis • Leaves the reader with a memorable final point or strong impression of the writer's evaluation 					

Appendix P (continued)

<p>Grammar, usage, style, rhetoric:</p> <ul style="list-style-type: none"> • Capitalization, punctuation, verb tense, subject/verb agreement, pronoun/antecedent agreement, avoids passive voice in favor of active verbs • Varied sentence lengths and styles, good sentence construction, avoids redundancy • Appropriate use of diction and vocabulary, few or no spelling errors 					
<p>Evidence of growth between drafts:</p> <ul style="list-style-type: none"> • 1st draft attached with feedback • 2nd draft attached with feedback and peer editing notes 					

Appendix Q

Graduation Project Due Dates

Each English teacher will determine the due dates that are most relevant to his or her curriculum. It is up to you to complete each part of the research process. Do not jeopardize your overall English grade and/or your ability to graduate by missing an important deadline.

Description	<i>DUE DATE</i>	<i>Possible Points</i>
Submit a project proposal		
Finalize your Essential Question and Thesis		
Portfolio forms (letter to principal and mentor verification /waiver form)		
Annotated Source List– typed (minimum of 10 sources listed although you may not use them all in your final paper)		
Graphic Organizer–this will include your Foundation Questions and supporting details		
Flag Day–are you on track with your research? If not, letter will be sent home.		
Check of notes (note cards and highlighted copies from documents)		
Outline– typed using MLA format		
First Draft– typed with citations		
Flag Day–will you be able to successfully complete this project?		
Second Draft with evidence of edits and revisions		
FINAL PAPER DUE		
TOTAL POINTS FOR PROJECT		
Presentation of research and product to panel of judges		

* You must pass your paper **BEFORE** you will be allowed to present to the judges.

SUPPLIES–To complete your research, you need the following items:

- 2-pocket portfolio for storing your materials
- 100, 3" x 5" lined note cards in a small sandwich bag
- collection of different colored highlighters
- adequate printing rights for notes and drafts (not having a print allotment, is NOT an excuse to miss a deadline!)
- *MLA Handbook for Writers of Research Papers*, 6th ed, Joseph Gibaldi

Appendix R

GRADUATION PROJECT PROPOSAL

- I. Briefly describe your research and what you want your judges to know when you are finished:
- II. Essential question to be answered as a result of your research findings:
- III. Describe any previous knowledge/experience with this topic:
- IV. Product proposal
 - A. Brief description
 - B. Explanation of how this product relates to and is a manifestation of the research
- V. Presentation (10 minutes)
 - A. 5 main points to be covered—this is an overview, but not a summary of your paper
 - 1.
 - 2.
 - 3.
 - 4.
 - 5.
 - B. Anticipated questions from the judges
 - 1.
 - 2.
 - 3.
 - 4.
 - 5.
- VI. Limitations—briefly describe any roadblocks you expect to encounter on your journey toward a successful graduation project.

Appendix S

GRADUATION PROJECT MENTOR VERIFICATION

It is strongly suggested that you choose a mentor from the school or community to assist you in the completion of your graduation project. The mentor should assist you with finding research documents to support and answer your Essential Question. In addition, your mentor will help you create a product that is a concrete example of the results of your research. **Your mentor must have the following qualifications:**

- The mentor must be 21 years of age or older.
- The mentor cannot be a member of your family except by special approval from the Graduation Project Committee. This request must be made in writing and include a rationale.
- The mentor must have documented knowledge and expertise in your area of interest. This may include a college degree, business ownership, employment in the area, or hands-on training.
- The mentor must agree to consult with you during the course of your research. Meetings may include face-to-face meetings, phone or electronic interviews, job shadowing, and/or a site visitation.

Waiver of Mentor: I have chosen not to use a mentor and understand that I must keep meticulous records for my product log. I also understand that by not having a mentor, I will not be penalized; however, I understand that this process is easier when guided by an expert in the field.

_____ (signature of student)

MENTOR VERIFICATION

Student: _____

Essential Question: _____

Mentor: _____

Mentor's contact information (phone #'s and e-mail):

Description of mentor's expertise: _____

Student's signature—The information provided above is correct and true. I agree to work with my mentor to successfully complete my project.

Mentor's signature—I understand the requirements of the project and agree to assist the above named student with the research and with product development.

Mentor Approval: _____
(Principal's or designee's signature)

Appendix T**SAMPLE BUSINESS LETTER**

Date

Susie B. Student
333 Street Name
City, North Carolina 27107
17 January 2006

Ms. Mary Wonderful, Principal
West High School
424 Red Brick Road
City, North Carolina 27107

Dear Ms. Wonderful:

P1 = Describe your project: WHAT AND WHY? (Brief)
INCLUDES YOUR ESSENTIAL QUESTION IN THE FORM OF A THESIS

P2 = Also include the name and qualifications of your mentor.
How is this going to impact me/use it later on . . .

P3 = I have the forms . . . Thank you in advance

Sincerely,

Susie B. Student

Appendix W

FINAL CHECKLIST FOR PRESENTATION

	HAVE	NEED
Graded copy of the paper with Works Cited page		
All signed forms: 1. Letter to the principal 2. Mentor Verification		
Product Log		
Mentor Log		
Disk, CD, home directory, or Jump Drive with your presentation saved (see guidelines below)		
Product — you must notify the Graduation Project Committee in advance if you have special needs (CD player...)		

On the day of your presentation:

1. Dress professionally
2. Be early (15 minutes before your scheduled time)
3. Have all the materials you will need including all of the above and anything special you need for the presentation (e.g., CD player)
4. You have been given instructions for logging on using teacher laptops; however, it is possible for the network to crash the day of your presentation. **Make sure you have everything backed up; most of our new laptops DO NOT have a disk drive.**

Presentation:

1. Between 10 and 15 slides (you only have 10 minutes to present)
2. Stick with a unified effect; the templates are good!
3. Limit the number of words – use “note” format; shoot for no more than 20 words per slide
4. Increase the visuals – this is where you add pictures and graphs
5. No sound effects, fades, or any animation whatsoever
6. Slide 1 = your name, my name, mentor’s name
7. Slide 2 = Essential Question (EQ)
8. Body Slides = overview of your research paper without copying word for word; add appropriate graphs and pictures (cite!)
9. Last slide = the answer to your EQ
10. Proofread, proofread, proofread!!!!

Finally:

GOOD LUCK – HAVE FUN – THERE IS LIGHT AT THE END OF THE TUNNEL!

Appendix X

Student Name _____ **English Teacher** _____

Presentation Rubric

As you view the student's presentation, please consider each numbered line below and highlight or circle one box for each row. Any rating under the heading of "Resubmission Necessary" means that this student has failed this project and will have to revise and represent at a later date.

Presentation Rubric			
Exemplary		Satisfactory	Resubmission Necessary
1	Consistently exhibits confidence through eye contact, posture, volume, and articulation.	Generally exhibits confidence through eye contact, posture, volume, and articulation.	Exhibits limited or no confidence through eye contact, posture, volume, and articulation.
2	Written and verbal content is completely free of grammatical, mechanical, and factual errors.	Written and verbal content is generally free of grammatical, mechanical, and factual errors.	Errors were problematic and distracting to the audience.
3	Wears professional or authentic attire.	Dressed in an appropriate manner.	Wears inappropriate attire.
4	Employs creative use of visual aids that enrich or reinforce presentation.	Employs appropriate use of visual aids that enrich or reinforce presentation.	Employs ineffective visual aids.
5	Effectively defines a main idea and clearly adheres to its purpose throughout the presentation.	Adequately defines a main idea and clearly adheres to its purpose throughout the presentation.	Insufficiently defines a main idea and/or does not clearly adhere to its purpose throughout the presentation.
6	Employs a logical and engaging sequence which the audience can follow.	Employs a logical sequence which the audience can follow.	Employs an ineffective sequence which is confusing to the audience.
7	Demonstrates exceptional use of supporting details/evidence.	Demonstrates sufficient use of supporting details/evidence.	Demonstrates insufficient/no supporting details/evidence.
8	Confidently, politely, and accurately responds to judges' questions and comments.	Politely and accurately responds to judges' questions and comments.	Ineffectively responds to judges' questions and comments.

The Essential Question for this presentation is:

Appendix Y

Product Rubric			
Exemplary		Satisfactory	Resubmission Necessary
1	Exceeds number of required hours (15 hours or more).	Meets number of required hours (at least 15 hours).	Does not meet number of required hours.
2	Demonstrates a logical and relevant link to the essential question.	Demonstrates an adequate and relevant link to the essential question.	Demonstrates a minimal/no link to the essential question.
3	Demonstrates significant creative thinking, decision-making, and/or problem-solving.	Demonstrates sufficient creative thinking, decision-making, reasoning, and/or problem-solving.	Demonstrates limited/no creative thinking, decision-making, reasoning, and/or problem-solving.
4	Demonstrates extensive personal growth AND/OR interaction with the community.	Demonstrates sufficient personal growth AND/OR interaction with the community.	Demonstrates limited/no personal growth AND/OR interaction with the community.
5	Exhibits creative and exceptional results using talents, abilities, and varied resources.	Exhibits adequate results using talents, abilities, and varied resources.	Exhibits ineffective or unacceptable results.
6	Displays extensive use of detail.	Displays sufficient use of detail.	Displays minimum use of detail.

Question and Answer Period

As you fill out the rubric, please ask the following questions to all of the student presenters:

1. Why did you select this topic?
2. How will this impact you later?
3. What did you learn the most through your research and this project?

Judges Feedback

Please complete this section for all of the student presenters:

Suggestions	Kudos (what you did really well)

Appendix Z

RECOMMENDATION LETTER

Dear Senior:

The panel of judges has completed the ratings sheet for the presentation and product components of your Graduation Project. After reviewing your scores and perusing the feedback from the judges, the Graduation Project Committee has made the following recommendation for:

NAME _____ ENGLISH TEACHER _____

	SUCCESSFULLY PASSED	DID NOT PASS
PRESENTATION		
PRODUCT		

If both the Presentation and the Product are checked “SUCCESSFULLY PASSED,” congratulations! You are one step closer to graduating and moving on to a stellar future.

If you have a check in the “DID NOT PASS” column for either the presentation or the product, you must revise or redo the area or areas that you did not pass. To do this, you must **first schedule an appointment with _____ in room _____ by _____**. When you meet for your appointment, you must bring the following items:

1. Your Portfolio
2. This letter with the attached scoring rubrics
3. Any artifacts that support your product
4. The CD or flash drive with your presentation

Please keep the following points in mind as you modify and refine your work:

1. ***Do not panic.*** Though failing to pass a portion of your project is upsetting, please understand that we are committed to working with you.
2. ***Carefully study your judging sheets.*** Note the areas of weakness and the comments from your judges.
3. ***Reconnect with your mentor, your project advisor, your English teacher, or any other adult who can assist you.***

We are committed to working with you as you continue your high school education. Please contact us if you have any questions.

Sincerely,
The Graduation Project Committee