An Historical Analysis of the Virtual VA Program

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AN HISTORICAL ANALYSIS OF THE VIRTUAL VA PROGRAM

By

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ABSTRACT

The purpose of this study was to investigate the development of the Virtual VA program. This was a qualitative study of the program’s policies, procedures and principles. Furthermore, Virtual VA was compared to other, more tenured, online high school programs.

The following were guiding questions used in this study: What factors led to the development of Virtual VA?; What attributes indicate quality online instruction, and how does Virtual VA ensure the quality of its courses?; How might educators and political leaders benefit from the development of Virtual VA?; How does Virtual VA compare to successful, online secondary programs?; What future developments in online learning might impact Virtual VA?

The researcher interviewed five administrators from Virtual VA. The administrators attributed the success of Virtual VA to its commitment to the mission to meet the needs of underserved students. Most parents and staff were reported to be satisfied with the program, but quantitative studies have not been conducted. End-of-course student surveys indicate that most students are satisfied with their online experience. Virtual VA student achievement on AP tests was commensurate with student achievement in face-to-face classrooms. The most frequently reported critical components of the Virtual VA program were analogous to those of more tenured successful programs – collaboration, courses, professional development, and quality control.
Recommendations for future research include: a longitudinal study of students' AP scores in online environments versus face-to-face classrooms; replication of this study to obtain the perspective of parents, students and teachers; and additional studies of virtual programs for secondary students to expand the research base for quality programs.

Conclusions of the study are that schools should encourage students to enroll in online courses. Schools should encourage teachers to explore online training and teaching opportunities to expand their exposure to, and expertise in, online learning and pedagogy. Technical infrastructures in schools should be developed with the intent of supporting online coursework by teachers and students. The Virtual VA program should integrate an external evaluation program to validate its results. Finally, in an era of diminishing resources, schools should embrace educational opportunities that augment their ability to meet the diverse needs of students.
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DEDICATION

The pursuit of excellence was instilled in me by my parents from birth, as well as a love of learning. This is dedicated to their unwavering support.

I also dedicate this to my husband, Bob, for believing in me.
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CHAPTER I
INTRODUCTION

"There is nothing more unequal than the equal treatment of unequal people." – Thomas Jefferson

Background Information

Preparing students for the 21st Century workforce is a common phrase being touted in K-12 American education today. Schools strive to provide a comprehensive instructional program for all students, from the least able to the most gifted. Meeting the educational needs of this diverse group is especially difficult for public schools that are also held accountable to the federal mandates of the No Child Left Behind (NCLB) legislation and state high-stakes testing programs. Allocation of resources is always a process of competing interests and has become exacerbated by budgetary constraints in many locales.

The presence of technology in schools has exploded, and students are more technologically literate than ever before. When trying to fully integrate technology into schools, Bedard and Knox (2006) stated that technology-savvy students are the greatest change agents. Today’s students are ultracommitters (United States Department of Education, Office of Education Technology, 2005). The traditional brick-and-mortar school paradigm is undergoing a radical, yet incremental, shift. Enrollment of secondary students in online courses is increasing dramatically. Nonetheless, there is still a debate about the effectiveness of online courses as an instructional model. According to Carr
(2007), concerns continue to exist with respect to instructional design, pedagogical techniques, social dynamics, budgetary impact, and the dynamics of the student-teacher relationship in a virtual environment.

The CEO Forum on Education and Technology convened by President Clinton in 1996 included representatives from many of the leading technology companies – Hewlett Packard, Dell and Verizon, to name a few. Their report stressed the importance of developing new skill sets in students to prepare them for the digital age and the 21st Century (CEO Forum Report, 2001). The integration of technology, married with effective instructional delivery models, is critical to the success of students as globalization expands. Policy decisions to incorporate online courses with traditional school settings to enhance opportunities for students and to support their achievement need to be based on both analytical studies of available data and on documentation of virtual programs to determine those characteristics most likely to reap benefits for students, educators, and communities.

**Statement of the Problem**

Educators, students and parents have conflicting thoughts about the implementation of online courses for the completion of critical high school courses. The competition among secondary students to include AP courses on their high school transcripts is intense. Since many public high schools do not have the qualified staff to teach, or the student enrollment to justify the use of school resources to offer the multitude of AP courses currently approved by The College Board, local school boards must make hard decisions about the courses offered by the staff they employ.
Additionally, student access to the Internet is becoming almost pervasive in American schools, making it easier to integrate technology into every day instruction. Accompanying this increase in access has been the creation of virtual schools. Virtual schools, whether regional, state or national in scope, offer alternatives for students in traditional school settings. According to the National Education Technology Plan, nearly 25% of K-12 public schools offer virtual instruction to meet the needs of students (United States Department of Education, Office of Education Technology, 2005). Enrollment in these courses is generally at the discretion of the local school division, especially if the students are seeking credit for inclusion on their high school transcripts.

The research in this study documents the development of the Virtual VA online program sponsored by the Commonwealth of Virginia for secondary students, primarily as a means of obtaining instruction in AP courses that many school divisions are unable to offer due to budgetary and staffing constraints. Without the availability of such information, school divisions, educators, parents and students are unable to make an informed decision about online learning.

Purpose of the Study

The purpose of this study was to investigate the development of the Virtual VA program for high school students. This is a qualitative study of the policies, procedures and principles of the program. Furthermore, the Virtual VA program was compared to other, more tenured, successful online high school programs to determine what characteristics these programs have in common and how that may impact the quality of instruction.
This is a particularly important study to conduct, due to the increasing use of online instruction in high schools today and the need to determine if such instruction is capable of providing students with high quality instruction. Additionally, local school boards and superintendents need to have concrete information to determine if online instruction is a viable option for implementation in their school divisions. From a larger political perspective, the General Assembly and the Virginia Board of Education are facing lean economic times and having data of this nature will contribute to their arsenal of information to determine funding options for the future of Virtual VA.

Research/Guiding Questions

Educators, students and community members need to understand the advantages and disadvantages of online coursework within the framework of the traditional high school model. Enrollment in AP courses is often limited to the most capable students, and schools want to offer these students high quality instruction while trying to balance the budgetary constraints of staffing a comprehensive educational program. While online learning is an increasingly acceptable mode of instruction at the university level, there are many parents and educators who are not convinced that it is appropriate for the developing, adolescent learner.

The development of a successful organization is problematic and often fraught with turbulence and conflicting parties with competing agendas. Launching an online learning program for high school students funded by public dollars is one such undertaking. What are the characteristics of successful virtual programs and does Virtual VA incorporate those qualities?
The following guiding questions were used in the historical analysis of Virtual VA:

1. What factors led to the development of the Virtual VA online program for high school students?

2. What attributes indicate quality instruction in an online high school program, and how does Virtual VA ensure the quality of the courses they offer?

3. How might Virginia educators and political leaders benefit from investing in the development of a robust Virtual VA program?

4. How does the programmatic structure of Virtual VA compare to successful, online high school programs?

5. What future developments in online learning might impact Virtual VA and its ability to meet the needs of its constituencies?

**Significance of the Study**

Meeting the needs of students should always be the goal of education. However, schools in rural areas with limited teaching staff, or school divisions with limited budgets, often cannot justify the expense of hiring a teacher to teach specialized courses such as AP courses and foreign languages (Maeroff, 2003). Even larger school divisions have difficulty justifying the allocation of qualified teachers for unique courses, as they are compelled to channel resources into meeting remedial student needs to achieve accreditation standards of NCLB and state benchmarks.

Virtual programs have become attractive because of the accessibility of technology and most students' competence in the use of technology. However, are all virtual programs created equal? How does a parent, student or school division get
beyond the glitz of a marketing campaign, to the nuts and bolts of whether a program has a sound pedagogical basis? Virtual programs are being created quickly to take advantage of a budding market without strong policy and procedural standards in place to regulate practice. Therefore, customers – students, parents and educators – are at risk of buying something that cannot be delivered (Maeroff, 2003).

This study can shed light on the effectiveness of one virtual program’s instruction. The historical analysis of Virtual VA, and its comparison with other virtual programs, will potentially add credibility to its program and contribute to the existing literature regarding effective virtual high school programs.

Limitations of the Study

The study is limited by its scope and design as a retrospective historical analysis of the Virginia Virtual Advanced Placement School (VVAPS), better known as Virtual VA. It is bounded by the findings in Virginia and the interpretation of information by the opinion of one principal investigator. It is also limited by the necessity of the program to align with Virginia Standards of Learning (SOL) and other requirements set forth by the Virginia General Assembly and the Virginia Department of Education. Additionally, the analysis is limited to the period of time in which the study was conducted.

Delimitations of the Study

The results are delimited to study participants and comparative information from other online secondary programs. The interviewees were the administrators of the Virtual VA program who have a unique perspective of the program and its development. Virtual VA is a public education program; however, its courses are open to students enrolled in grades 7-12 who may be homeschooled or live in states other than Virginia.
The program was also developed to meet specific challenges faced by Virginia school divisions related to advanced courses, and some of its courses are in alignment with the Virginia diploma requirements which may not transfer to other states. The transferability of the findings to other programs is also constrained by the comparison of the program to two other online education programs – the Virtual High School, Inc. and the Illinois Virtual High School.

Definitions

Internet-based (online) learning: formal education in which most instruction occurs while the teacher and student are separated by time and space. It includes multiple delivery models such as independent/correspondence study, videoconferencing, Internet and other technologies.

Virtual school: an educational organization that offers K-12 courses through the Internet or web-based methods in a structured, teacher-directed environment where instruction is synchronous or asynchronous (Barker & Wendell, 2001; Blomeyer, 2002).

Virtual program: similar to the aforementioned term, but the program does not offer a comprehensive set of courses. It serves to augment the traditional school primarily to increase access to, and choice of, certain courses (Barker & Wendell, 2001).

Virtual Virginia (Virtual VA): an educational program funded by the Virginia Department of Education to meet the needs of secondary students primarily by providing online access to AP and world language courses (Virginia Department of Education, 2007).

Distance (Online) education: educational situation where the instructor and student are separated by time, location, or both (Blomeyer, 2002).
Advanced Placement Program (AP): offers high school students the opportunity to take college-level courses and to demonstrate proficiency of objectives by taking the corresponding AP examination. Scores of 3 or above on AP exams can earn a student college credit or placement in advanced courses upon matriculation to a college or university (Ewing, 2006).

Online Course: an academic course offered in a virtual environment over the Internet where teachers and students do not meet face-to-face, in which the majority of the instruction is delivered through the Internet and is accessible by computer 24 hours a day, 7 days a week (Davidson, 2005).

Traditional education: courses offered in a brick-and-mortar school, where the teacher and student engage in a face-to-face environment.

Outline of the Study

The study is organized into five chapters. Chapter I introduces the study and includes a statement of the problem, the purpose of the study, and research questions. The chapter also provides definitions of terms, a discussion of limitations and delimitations and provides the significance of the study.

Chapter II provides a review of the literature on virtual learning and its impact on educational organizations and invested parities – students, parents, educators, school divisions and policy makers. The chapter begins with a discussion of the development of distance learning as a meaningful instructional modality and its maturation as technological advancements have been made. The significance of available resources to fund the infusion of technology into public schools is also discussed. The challenges of virtual learning in the K-12 environment are described, as well as perceived advantages
of online learning. Successful virtual programs are outlined as a foundation for understanding the complexity of their implementation. Additionally, a description of the development of the Advanced Placement Program and its merits are given.

Chapter III includes an explanation of the research design and methodologies implemented in this study. The chapter includes the design of the study, a description of the sampling techniques, and a description of the instrumentation – including a brief discussion of its validity and reliability. Methods of data collection and analysis are also presented.

Chapter IV includes an analysis of the data and findings, including discussions of methodologies. The data is organized in response to the research questions and summarized.

Finally, Chapter V provides conclusions and recommendations for future implementation of virtual programs for students enrolled in AP courses. Broader implications of the study are shared, along with recommendations for future research.
CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Educational institutions are steeped in tradition, and are often slow to implement change. Today's classrooms in American schools are reminiscent of schoolhouses from a century ago, even though many advancements in technology have radically changed people's lives. Business leaders, policy makers, parents, taxpayers, and educators are demanding that schools change in order to increase student achievement (Penn & Williams, 1996). Funding from a multitude of sources has made classroom access to the Internet almost pervasive; however, the integration of technology into everyday instruction is inconsistent. According to November (1996), the development of the computer, and increased access to the Internet and World Wide Web, have revolutionized the way people work, shop, and communicate, but the debate continues as to the most effective manner in which to use technology to positively impact student learning.

In order to frame the context of virtual learning and the delivery of AP courses in an online model, the review of the literature will trace the development of distance learning, the emergence of online learning as an instructional model for secondary students, a discussion of some advantages and disadvantages of online learning, and an overview of the Advanced Placement program.
Distance Learning: An Historical Perspective

One of the first precursors to today's advanced online learning systems was the correspondence course. The advent of cheap, reliable mail service paved the way for students to take courses outside of the regular classroom environment. These courses, first developed for adults, enabled students who had challenges getting to class in the typical fashion to interact with their teachers through the mail system. They also represented a myriad of topics, from traditional academic courses to vocational courses like shorthand. The Chautauqua Institute and University of Chicago were forerunners in the collegiate world, offering degree programs via correspondence (Moore & Kearsley, 1996). Correspondence courses, and the use of mail as the means for interacting with the instructor, gave way to more modern tools as technology advanced. Radio and teleconferencing tools became major channels of instructional delivery models, and in 1987, the Star School Program Assistance Act was passed by Congress specifically to promote the use of telecommunications in certain content areas in K-12 education (Moore & Kearsley, 1996).

The next major advancement in distance learning coincided with the development of the World Wide Web, also known as the Internet. In the latter half of the 20th Century, the Department of Defense and the National Science Foundation set up communication networks among the military, colleges and universities, defense contractors and research organizations. While not initially targeting the K-12 educational setting, this early work laid the foundation for online interactions. The term, “distance learning,” evolved into online learning or Internet-based learning when the resources of the World Wide Web became the primary platforms for communication and interaction between instructors and
students. Other terms that are often synonymous include "virtual learning" and "web-based learning," in contrast to the traditional, brick-and-mortar or face-to-face model. According to Johnson and Aragon (2003), by 1999 nearly 88% of higher education institutions were offering, or had plans to offer, distance learning courses using the Internet. Online learning is being used today to deliver all of the courses that are taught in the traditional college setting, with some universities existing entirely online. Many universities are even promoting online student-teacher collaboration and sharing to continue pushing this educational model, such as Massachusetts Institute of Technology’s OpenCourseWare project (Massachusetts Institute of Technology, 2007).

**Online Learning in Secondary Schools**

The preponderance of data related to online learning exists at the higher education level. While some studies have been conducted in the secondary school setting (Collins, 2001; Roblyer, 1999; Roblyer & Marshall, 2003), more need to be conducted to fully understand and document the successes and failures of this delivery model for high school students. Funding provided by the U.S. Department of Education in the millions of dollars for the development of effective uses of technology in the public education arena has created a market for unique and new learning models. However, these models must be carefully studied to determine if they are appropriately meeting the needs of high school students. Johnston and Barker (2002) noted that much of the focus in the development of secondary online programs has been to adequately prepare students for the technology-rich 21st Century, and to give them opportunities to obtain knowledge in alternative settings.
Online learning environments have proliferated as technology has become more accessible and school choice has gained momentum. Communities are demanding more courses and greater sensitivity to student circumstances, which stretched already tenuous budgets. Since resources are finite and new demands are not, schools have sought alternative avenues for meeting the demands of their increasingly diverse student populations. School divisions have combined resources to create virtual consortiums, and states have funded virtual initiatives to relieve the burden on individual schools. The flexibility of virtual programs to provide any time, any place, and any subject instruction appeals to many students and parents who are seeking an alternative to the traditional school setting.

Brick-and-mortar schools have very specific expectations for students and the structure of the school day. More and more, students and parents are seeking options to this traditional model. Virtual programs have emerged based on these unique student groups – home-schooled children, homebound students, special education students, child actors, at-risk students, dropouts, teenaged mothers, to name a few (Peak Group, 2002). Virtual programs also assist school divisions in meeting the challenges of overcrowded schools, outdated buildings, shortages of qualified teachers, and growing student enrollments. Policy makers and community members are interested in increasing the graduation rates within their school divisions to meet accountability standards, and have therefore given tacit approval to many virtual initiatives without solid evidence of their ability to deliver a quality education. This is one of the major reasons virtual programs need to be studied and held accountable to similar standards of traditional schools.
Advantages and Disadvantages of Online Learning

Access to a broader range of courses is one of the primary advantages in online learning in a secondary school. Smaller and more rural schools are often hindered in their ability to provide robust curricular options beyond the basics (Gagne and Shepherd, 2001; Donlevy, 2003). The integration of online classes with the traditional school model enhances the ability of the school to meet student requests for courses without creating an all-or-nothing approach to virtual programs. This can be particularly useful when adding advanced courses for gifted students, without having to increase teacher allocations or find classroom space in a potentially overcrowded building (Maeroff, 2003). Hybrid models, where students attend traditional schools and take online classes, are seen by some as providing the best educational scenario for students. It allows for the continued socialization of developing adolescents which may be difficult to accomplish in a totally online schedule of courses.

Online courses have also been seen to promote greater teacher-student interaction than face-to-face classroom instruction (Meyer, 2003). Evidence shows that self-discipline, sense of community, improved communication skills, reflection, and a shared sense of learning are fostered in Internet-based learning. According to Meyer (2003), students who are able to create a community through Internet-based course interactions achieve confidence, learn from others, and feel connected and accepted. Students who are often intimidated or hesitant to speak out in the traditional classroom are able to express themselves freely and contribute more in the more anonymous setting of an online class (Kindred, 2003). An asynchronous Internet-based classroom removes the pressure of having to respond within a class period, and does not necessarily cater to the vocal...
student as seen in many face-to-face classrooms. Online discussions seem to require more reflection and thought, as students read one another’s postings and add to a threaded dialogue.

Since text-based communication is the basis of most online courses, the opportunity to improve communication skills is enhanced. The teacher is not a lecturer, but a guide to ongoing discussions who can easily see the knowledge of each student based on his/her postings. The teacher tailors his/her responses to each student, providing for increased student attention. According to Twigg (2003), Socratic questioning techniques are often employed by teachers of well-written online curricula which encourage deep thinking about the subject.

Another advantage to the online learning environment is the ability to collaborate with other students from across a region, state or the world, depending on the scope of the virtual program. Students who would never come in contact with one another are given opportunities via course projects and discussions to explore topics at great depth and within the fluid boundaries of the Internet. The anonymity characteristic of virtual classes also encourages teaming among students who would not select one another based on otherwise superficial hindrances – ethnicity, religious affiliation, physical appearance, handicapping condition, for example. The freedom to interact with others of like interests, or world-renowned experts, is enhanced by the accessibility of information and people on the Internet.

Perhaps one of the most obvious advantages of online learning is its portability. Students and teachers can access course material, discussion boards, assignments and other facets of the virtual classroom that are inaccessible in the traditional model outside
of designated school hours. Regardless of where the participants live or what time of day it is, the course is “in session” and contributions are accepted or can be modified.

Vacations, travel, or other kinds of hindrances in the traditional classroom, are surmountable in the virtual environment (Roblyer & Elbaum, 2000). While some may find this 24-hour-a-day, seven-day-a-week, open session ideal, it can create challenges if not managed effectively.

Some disadvantages to online learning are the possible technical failures that plague computer users every day. If the server breaks down or is intermittently available, it can hinder the communication among teachers and students. Additionally, schools must develop and implement robust network infrastructures to support student Internet traffic if course work is conducted in the school division (Schrum, 2002). Virtual programs must also provide technical support to students who often complete work at home or in a satellite location. The accessibility to the Internet is often stratified by ethnicity and socioeconomic status and schools should be sensitive to this when offering online learning as an alternative (Maeroff, 2003).

According to Zucker and Kozma (2003), the textual nature of online learning can be an advantage, but is often a disadvantage to students with low reading abilities, learning disabilities (i.e., dyslexia), and attentional issues. These students may become easily frustrated by the reading-intensive nature of the course work. Of course, this problem can be remedied by embedding multimedia components in the virtual environment, but that can also be problematic technically. Course content that requires media players and other plug-ins necessitates bandwidth on the part of the student and runs much faster on high-end connections. Students who are working with dial-up
modems or with other less-advanced Internet connectivity equipment may have competing frustrations and become disillusioned with the online classroom.

Online courses require participants to be self-motivated and self-disciplined in the execution of assignments, completion of work, and contribution to discussions. These two terms are not frequently associated with teenaged students, and their importance in the student success has been documented in numerous studies (Muilenburg & Berge, 2005; McCarthy & Kuh, 2006). Due to the lack of face-to-face interaction with the teacher and semianonymity of online courses, the environment is ripe for students to disappear from class for extended periods of time or to dropout completely. It is not unusual for virtual programs to require an adult mentor at the student's traditional school, or in the region, to make periodic face-to-face interactions and to provide coaching to ensure each student's engagement in a class. According to Roblyer and Marshall (2003), some virtual programs employ screening instruments, such as the Educational Success Prediction Instrument (ESPRI), before enrolling students. Without question, the diligence and commitment to a class that a student has is a factor in any educational environment, but especially in the less formally structured online secondary classroom.

**An Overview of the Advanced Placement Program**

In the early part of the 20th Century, colleges and universities noticed that many high-achieving high school students were capable of college-level work while still in high school (Santoli, 2002). Two projects were funded by the Fund for the Advancement of Education of the Ford Foundation to address this growing concern. One program, headed by John Kemper, consisted of a committee of college and high school teachers who recommended that achievement tests be developed and given to academically advanced
high school students to enable them to garner college credit while still in high school. The other program, the Kenyon Plan, also convened a committee of college and high school teachers plus individuals from the Educational Testing Service. This group developed advanced course outlines, syllabi, and tests to be administered to high school students. The first tests were given to students in 1954. The following year, the College Board took over the program and it became officially known as the Advanced Placement (AP) Program (Kreider, 1979).

The AP Program’s standardized syllabi and testing protocol provide a consistent frame of reference for colleges and universities when considering the strength of preparation of freshman applicants. Furthermore, many colleges and universities award credit or advanced standing in classes if a student scores three or higher on the tests. Test scores can range from one to five. According to Alpern (1984), 1229 students took AP exams in 1955. In 2006, more than 1.3 million students took AP exams, representing a 140% increase in students’ taking AP exams in the last 10 years (Ewing, 2006). The increase in student participation in courses and the taking of exams makes one question the reasons behind this programmatic explosion.

The inclusion of an AP program in a high school is often welcomed by the parents of gifted and more able students, while other parents see it as a drain on resources for the rest of the school’s student population. It is not a federal requirement to offer AP courses, but more high schools are feeling the pressure to offer more extensive and rigorous courses for the college-bound or highly capable students. Tracking or grouping of students by ability level is controversial, at best, and several studies document the effect of AP programs on non-AP students (Cocking, 1990; Gamoran, 1992).
Nonetheless, AP classes can be advantageous for students who are not challenged in average, mainstream classes or who take classes taught by less than the most able teachers. Several studies document that teachers of AP courses are more likely to have majored in the content area they are teaching, spend more time planning for instruction, and have higher expectations for their students (Thomas, 1991; Gamoran, 1992; Burdman, 2000).

Another key factor, when considering the development of AP programs across America, is the apparent racial divide in availability of courses, student enrollment and student achievement on AP exams (Santoli, 2002; Klopfenstein, 2004). Schools in more rural locations and urban settings are less apt to offer AP programs, as well as those with higher impoverished Black and Hispanic student populations (Aluri, 1987; Anonymous, 2007). Black and Hispanic students also have lower mean grades on AP exams, while the highest mean grades are scored by Asian students, followed by White students (National Center for Education Statistics, 2007). While the AP Program has many advocates, its seeming inability to promote equitable access and achievement creates significant issues.

Summary

Meeting the needs of students continues to be a primary mission of secondary schools. In attempting to meet these needs during tight budgetary times, schools are looking for effective and efficient instructional models that extend beyond the traditional brick-and-mortar schoolhouse. With the technology explosion of the 20th Century, most schools are Internet-capable, and students are digital natives increasingly more willing and able to navigate online learning programs. Virtual programs are being created and
implemented locally, regionally, nationally and internationally. How effective are these programs at delivering high quality instruction to prepare students for high-stakes tests? This study will explore the development and characteristics of one virtual program whose focus is primarily to deliver AP courses and other advanced courses to students who would otherwise be unable to enroll in these courses in their home school due to budgetary or staffing limitations. This program will also be compared to other, more tenured, virtual programs to determine similarities in programmatic and organization structure.
CHAPTER III

METHODOLOGY AND PROCEDURES FOR DATA COLLECTION AND ANALYSIS

Introduction

This chapter documents the research methodologies of the research study. It outlines the research design, selection of participants, instrumentation that was used, methods of data collection and analysis, and the reliability and validity of the research conducted.

Research Design

This study used qualitative data collection techniques to gain a thorough understanding of the issues addressed by the research questions. The researcher gained a deeper understanding of the Virtual VA program and its characteristics that impact student learning. The researcher conducted an historical analysis of the Virtual VA program. The study included interviews of current Virtual VA administrative staff, as well as a review of information sources including the Virginia Department of Education, the Commonwealth of Virginia’s governmental records, minutes from congressional sessions, related dissertations, online documents and websites about virtual education programs, published reports, and other salient data sources to provide details of the historical, economic, and social contexts for the development of the program and an extensive review of online resources posted by the Virtual VA program. As posited by Creswell (1998), the researcher wanted to thoroughly explore a bounded system by collecting data from multiple sources of information which are rich in context. Sacks
(2003) asserted in her study that the implementation of historical analysis allows further understanding of a program and may suggest future implications as the program evolves. The data collected in the early portion of the study impacted the data collected by the researcher as the study progressed (Leedy & Ormrod, 2005).

The following information was collected for the qualitative portion of the research study:

1. Impetus for start of program
2. Technology platform used
3. Curriculum offered, how it was developed, grade levels served
4. Course structure
5. Enrollment criteria
6. Criteria for teaching staff
7. Assessment procedures for program
8. Student performance data on AP exams
9. Program administration structure
10. Policies and procedures

Each of these items were analyzed and categorized to give a comprehensive picture of the Virtual VA program. Subsequently, this program was compared to the Virtual High School, Inc. (VHS) program and the Illinois Virtual High School (IVHS) program, and documented in a similar manner by Kiekel (2007). The VHS program was selected because of its long-standing leadership in online learning for secondary students. The IVHS program was selected because its development mirrored that of
Virtual VA. Both of these programs served as appropriate points of comparison for the developing Virtual VA program.

**Sampling/Population and Instrumentation**

A document analysis was used to gather qualitative data about the Virtual VA program. Information was obtained from a diverse set of data points, including the Virginia Department of Education, the Commonwealth of Virginia's governmental records, minutes from congressional sessions, and other salient data sources. The research focus was derived from other similar studies primarily conducted in the analysis of two other virtual programs – Virtual High School based in Massachusetts and the Illinois Virtual High School (Kiekel, 2007). Additionally, the researcher reviewed the work of national organizations who have developed and documented the evolution of online learning. The researcher also conducted semistructured telephone interviews of select Virginia Department of Education leaders who serve as Virtual VA staff modeled after the interview protocol used by Sacks (2003). In a study of these, individuals have direct knowledge of the program's development and day-to-day operations; furthermore, they are intimately aware of the program's procedures and policies.

**Validity and Reliability**

According to Leedy and Ormrod (2005), the validity of a research tool is whether it actually measures what it is supposed to measure. The trustworthiness and validity of the study was based on the tenets of Creswell (1998). Triangulation of data was conducted; rich, thick descriptions of the data were compiled; the researcher declared her bias; the researcher checked for respondent validation; and the study included prolonged engagement and persistent observations. The survey instrument is a modification of the
instrument used by Jill Sacks (2003) in her study of The Virtual High School program in Massachusetts.

**Data Collection**

Historical analysis data was collected from the website for the Virtual VA program, as hosted by the Virginia Department of Education, and from print materials distributed regarding the program. Additionally, the researcher reviewed the minutes from VDOE meetings and General Assembly sessions, during which the Virtual VA program was conceived and authorized. Interviews conducted also served as a point of validation of the secondary source materials.

**Data Analysis**

After culling information from the Virtual VA website, policy proceedings, and reviewing available print materials from Virtual VA, the researcher analyzed the data looking for patterns and trends from the responses and published materials. Once these patterns were identified, the researcher described each major area of the program. She then provided extensive data and interpretation in response to the five research questions posed. Identified trends were compared to the Virtual High School program and other recognized leaders in secondary online learning programs (Watson et al, 2004).

The researcher used the data to suggest policy, practice and programmatic implications for secondary online learning based on the data collected and analyzed. She also made recommendations for future study in this expanding field of instruction.
CHAPTER IV

FINDINGS

This chapter presents the data aggregated from primary and secondary sources that were compiled by the researcher to address the research questions proposed in Chapter I. An overview of the historical development of the Virtual VA program and its impact on secondary education in Virginia is provided. The chapter further provides analysis of the telephonic interviews conducted and concludes with a comparison to other virtual high school programs.

As Patton (2002, p. 284) states, “Historical information can shed important light on the social environment. The history of a program, community, or organization is an important part of the context for research.” The purpose of this study is to go beyond a reporting of the history of the program – to interpret the data. The researcher describes not only what has happened, but also presents a rationale as to why the program has developed as it has (Leedy & Ormond, 2005).

Introduction

Educational institutions are steeped in tradition, and are often slow to implement change. Today’s classrooms in American schools are reminiscent of schoolhouses from a century ago, even though many advancements in technology have radically changed people’s lives. Business leaders, policy makers, parents, taxpayers, and educators are demanding that schools change in order to increase student achievement (Penn & Williams, 1996). However, the nature of the change, and to what extent schools change,
is a very contentious topic for educators worldwide as the brick-and-mortar model of schools is being eroded. One manner of change that is becoming more and more prevalent is the addition of online course options in the K-12 educational arena.

The preponderance of data related to online learning exists at the higher education level. While some studies have been conducted in the secondary school setting (Collins, 2001; Roblyer, 1999; Roblyer & Marshall, 2003), more need to be conducted to fully understand and document the successes and failures of this delivery model for high school students. The millions of dollars in funding provided by the U.S. Department of Education for the development of effective uses of technology in the public education arena has created a market for unique and new learning models. Johnston and Barker (2002) note that much of the focus in the development of secondary online programs has been to adequately prepare students for the technology-rich 21st Century, and to give them opportunities to obtain knowledge in alternative settings. This study provides an in-depth historical analysis of the Virtual VA program sponsored by the Virginia Department of Education.

Overview of Virtual VA

The Virtual VA program is the most current iteration of a distance learning program in Virginia. The educational leadership at VDOE has funded secondary distance learning programs in Virginia since 1983, in partnership with local school divisions and public television. Virginia's Electronic Classroom pilot program was the first of its kind in the nation. Based on the successful implementation of the Electronic Classroom, the General Assembly provided funds to expand the program in 1989. Virginia politicians have been consistent in their support of equitable educational opportunities for all
students. The Electronic Classroom Program begat the Virginia Satellite Educational Network (VSEN) in 1989 as the technology format became more sophisticated. VSEN delivered multiple AP and foreign language courses transmitted to local schools via a satellite feed. These courses were synchronous and required the use of a telephone for student-instructor communication. VSEN also included professional development courses for teachers. From the beginning of distance learning opportunities for Virginia students, the overriding rationale for funding such a project was to provide high quality educational opportunities to all students across the commonwealth – access to quality teachers and advanced courses. Online learning continues to play a role in alleviating educational disparity for school divisions in Virginia (Stapleton, 1999; Weisiger, 1997).

The work of Governor Mark R. Warner in 2003 triggered the creation of the Early College Scholars (ECS) program as a part of his “Education for a Lifetime” initiative. A requirement to successfully complete this program was that high school students take 15 hours of transferable college credit while enrolled in high school. Since access to college-level courses was limited in many areas of the commonwealth, the Virginia Advanced Placement School (VAPS) was created. Because the underlying goals of both VSEN and VAPS were so similar, the two programs were combined to more effectively meet the needs of Virginia students and to reduce management costs. The merger of these two programs took place over several years with the collaboration of staff from VDOE, colleges and universities, school divisions, public television and educational consortia. The collaborative work resulted in the clear identification of five program goals during the summer of 2006:

1. Establish the delivery of instruction via the Internet;
2. Unify the method of course delivery;

3. Identify four core support centers representing the areas of content (i.e., math and science, social studies, world language, English and humanities);

4. Hire and train highly qualified teachers; and

5. Provide support to local school divisions and communicate Virtual Virginia policy to division personnel, parents, and students.

With the widespread development of the Internet and its easy access to students in school divisions, the format of Virtual VA incorporated web-based technologies, including ElluminateLive!, Wimba, virtual labs and other supplemental software (DeMary, J.L., 2004; SREB, 2006; VDOE, 2007).

Virtual VA currently uses Desire2Learn as its Course Management System (CMS). Students are able to access their courses from school or at home, depending on their access to the Internet. Schools have the latitude of scheduling courses within the confines of the school day, or as additional courses outside of the school day, depending on local school board policies. There are 24 Advanced Placement courses scheduled to be offered in both year-long and 4x4 block scheduling formats for the 2010-2011 school year (Appendix B). Additionally, students may enroll in 26 other non-AP courses for the 2010-2011 school year. Courses are open to students in grades 7-12, provided that they meet course prerequisites and enroll according to the outlined procedures on the Virtual VA website (www.virtualvirginia.org). Course prerequisites follow those recommended by The College Board based on longitudinal analysis of student success. The number of
courses available has increased each year that Virtual VA has been available to schools for student enrollment.

All of the AP courses offered have been reviewed and audited by The College Board. Teachers who are hired to teach AP courses must meet the highly qualified status by VDOE, and also must meet the teaching qualifications set by The College Board. Each year that an AP course has been added to the Virtual VA school program, the review process mandated by The College Board has been followed to ensure the quality of the course by maintaining high teacher quality standards and conducting rigorous reviews of course syllabi. All AP courses require additional student work outside of class and many require summer assignments. All AP courses are designed to prepare students for the corresponding AP exam administered in May of each year. Non-AP courses are developed in conjunction with Virginia Standards of Learning to ensure that students are getting an equitable experience to those students who take the course in the face-to-face environment.

In the area of Fine Arts, Virtual VA offers AP Art History. This course is designed to provide the student with an understanding and knowledge of architecture, sculpture, painting, and other art forms within diverse historical and cultural contexts. Students examine and critically analyze major forms of artistic expression from the past and the present from a variety of cultures. While visual analysis is the fundamental tool of the art historian, art history also emphasizes understanding works in context, considering such issues as patronage, gender, and the functions of and effects of works of art.
In Language Arts, Virtual VA offers AP English Language & Composition and AP English Literature & Composition. Both courses require students to have completed English 9 and English 10 prior to taking the course. Students are also expected to have an advanced vocabulary and strong writing skills fostered by historical knowledge and an interest in daily events. A focus of these courses is on rhetorical analysis and argumentative writing. Students are trained to analyze texts for tone, purpose, syntax, rhetorical strategies, diction, and figures of speech. Simultaneously, students analyze persuasive speeches and essays for their validity in reasoning and effectiveness in persuasion. A major assignment in the course is the researched argumentative research paper.

AP English Literature and Composition is designed to challenge the student’s ability to think critically, to analyze and evaluate literature and its literary devices, and to write analytical essays effectively. The course utilizes a diverse selection of literature from various genres, eras, topics, themes, and authors from an array of backgrounds, ethnicities, and cultures. In addition, information concerning cultural, historical, philosophical, and psychological influences is addressed. Many literary genres are integrated into the course – epic, drama, novel, novella, short stories, and poetry. Advanced Placement English Literature and Composition refines and improves each student’s writing style, voice, grammar, mechanics, organization, and expression. Students analyze literature, both independently and collaboratively, using an array of synchronous and asynchronous technological resources. Each student prepares a research paper on literary criticism.
Virtual VA offers four AP science courses which include laboratory experiences to reinforce curricular objectives. AP Biology provides students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. A critical emphasis of the course is to develop students’ understandings of concepts, rather than on memorizing terms and technical details. A variety of hands-on and virtual labs are conducted. Due to the online nature of the learning environment, labs have been modified so that students can complete them by using safe substances that students have at home in their kitchens, rather than the original chemicals. The virtual labs are interactive and ensure correct and comprehensive learning. Integral to the laboratory experience are data analysis activities, from which students read, interpret, graph, and make conclusions on sample data.

AP Chemistry provides students with a depth of understanding in chemical fundamentals and competence in dealing with chemical problems. Unit topics emphasize chemical calculations and mathematical formulation of principles. As with AP Biology, there are virtual and hands-on labs. Local school divisions’ science instructors assist students by supervising hands-on laboratories. AP Environmental Science provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them.

AP Physics focuses on providing students with a survey of the major areas of physics – mechanics, fluids, waves, optics, electricity, magnetism and modern physics
Students apply the scientific process in each unit of instruction to foster critical thinking. Students learn basic terminology, discuss concepts, practice problems, perform virtual labs and complete computer simulations. Additionally, students participate in a variety of hands-on and virtual labs.

Virtual VA offers four AP mathematics courses – AP Calculus AB, AP Calculus BC, AP Computer Science A and AP Statistics. AP Calculus AB develops students' understanding of the concepts of calculus and provides experience with its methods and applications. The course emphasizes a multirepresentational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. Functions taught include those that are linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse trigonometric, and piece-wise defined. AP Calculus BC includes all of the coursework in AP Calculus AB plus additional units.

AP Computer Science A lays the foundation for object-oriented programming. Java is used as the vehicle to teach them. The focus is more on the concepts and abstract ideas, rather than on the syntax. The course includes the topics of the design of classes, algorithms, programming techniques and introduction to data structures like arrays and array lists. AP Statistics is a college-level introductory statistics course. This course is designed to present strategies for collecting, organizing, analyzing, and drawing conclusions from data. Students work on projects involving the hands-on gathering and analysis of real world data. The use of computers and calculators allows students to investigate and explore statistical concepts.

There are nine AP Social Studies courses offered for student enrollment. AP European History studies history since 1450 A.D., and introduces students to cultural,
economic, political, and social developments that played a fundamental role in shaping the world. Understanding the development of contemporary institutions, the role of continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse allows students to put historical events in context. The goals of the course are to develop a) an understanding of some of the principal themes in modern European history, b) an ability to analyze historical evidence and historical interpretation, and c) an ability to express historical understanding in writing.

There are two AP Government courses – AP Government and US Politics and AP Government and Comparative Politics. AP Government and US Politics focuses on an analytical perspective of government and politics in the United States. The course incorporates the study of general concepts used to interpret U.S. politics and the analysis of specific case studies. The course also includes an analysis of the various institutions, groups, beliefs and ideas that constitute U.S. political reality. AP Government and Comparative Politics' curriculum conveys the fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of settings. The course illustrates the rich diversity of political life, to show available institutional alternatives, to explain differences in processes and policy outcomes, and to communicate the importance of global political and economic changes.

Included in the social studies offerings are AP US History, AP Human Geography, and AP World History. AP U.S. History combines learning factual knowledge with developing analytical skills. Emphasis is given to developing interpretive writing skills while assessing historical material according to relevance,
reliability, and importance by weighing the evidence presented in historical scholarship. Instructors place a heavy emphasis on essay writing and developing superior writing skills. The course covers all of the United States history from its discovery and settlement to present-day America. AP Human Geography introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students study diverse peoples and areas organized around concepts that include location and place, scale, pattern, spatial organization, and regionalization. They also learn about the methods and tools geographers use in their science and practice.

The purpose of AP World History is to develop greater understanding of the evolution of global processes and contacts, in interaction with different types of human societies. There are six course themes taught each year – the impact of interaction among major societies and regions; the relationship of change and continuity across the world history periods; the effects of technology, economics, and demography on people and the environment; systems of social structure and gender structure; cultural, intellectual and religious developments and interactions among and within societies; changes in functions and structures of states and attitudes toward states and political identities including the emergence of the nation-state.

Finishing out the social studies offerings are AP Psychology, AP Macroeconomics and AP Microeconomics. In AP Psychology, students explore the systematic and scientific study of the behavior and mental processes of humans and other animals. Students investigate the principles, concepts and phenomena associated with major subfields within psychology, including biological bases of behavior, cognitive and
emotional processes, and diagnosis and treatment of psychological disorders. AP Macroeconomics examines why and how the world economy can change from month to month, how to identify trends in our economy, and how to use those trends to develop performance measures and predictors of economic growth or decline. Students also examine how individuals, institutions, and other influences affect people, and how those factors can impact everyone's life through employment rates, government spending, inflation, taxes, and production. AP Microeconomics studies the behavior of individuals and businesses as they exchange goods and services in the marketplace. Students learn why the same product costs different amounts at different stores, in different cities, at different times. They will also learn to identify patterns in economic behavior and how to use those patterns to explain buyer and seller behavior under various conditions. Microeconomics studies the economic way of thinking, understanding the nature and function of markets, the role of scarcity and competition, the influence of factors such as interest rates on business decisions, and the role of government in promoting a healthy economy.

To round out the AP course offerings, Virtual VA includes four AP World Language courses - AP Chinese Language & Culture, AP French Language; AP Latin: Vergil; and AP Spanish Language. Each of these courses develops the student's ability to read, translate, understand, analyze and interpret required selections. Students should already have a strong knowledge of grammar and vocabulary as well as good listening, speaking, reading and writing skills prior to enrolling. All instruction, in both written and verbal communication, will be conducted almost exclusively in the language. A variety of authentic audio, video and written texts are included. Speaking activities include role-
plays, oral reports, speeches and picture story telling. Writing a variety of compositions, answering essay questions on assignments and tests, and journal writing will enhance writing skills. Students also study cultural aspects in each course.

In addition to AP courses, Virtual VA offers 16 World Language courses. In order to graduate with an Advanced Studies diploma in Virginia, a student must successfully complete three years of one language or a total of four years of two years in two languages. Limited resources, low student enrollment, and a lack of highly qualified teachers make offering AP courses difficult for school divisions, which are also the same reasons schools are often constrained in the area of foreign language courses. In order to provide a high quality, comprehensive World Language program, especially in today's educational environment that is focusing on global opportunities, Virtual VA is particularly helpful to school divisions. The variety of languages offered includes Arabic, Chinese, French, Latin and Spanish. Additionally, Virtual VA has a Survey of World Languages courses which may used by school divisions as an introductory language course. School divisions who provide access to the Virtual VA language courses enable all of their students to pursue a multitude of languages and to build a strong transcript for those who choose to seek higher education opportunities.

In its early days, Virtual VA relied on purchased courses, but has subsequently invested in developing its own courses in recent years. As the program has matured and adopted the SREB Standards for Quality Online Instruction, course development staff has been focused on ensuring that the courses meet and exceed state and national standards, and that AP courses are audited and approved by The College Board. Careful attention is given to the inclusion of diverse learning activities to meet the variety of student learning
styles and needs. Course content includes many delivery modes and activities, including small group and whole class discussions, projects, written assignments, team work, multimedia resources, labs, and student presentations (Neugent, 2008). The SREB Standards for Quality Online Courses identify standards for online programs to consider when developing and delivering high quality instruction. These standards are based on analyses of distance learning programs across the country and the input of students, teachers and other stakeholders. Standards are clustered into the following core areas: course content, instructional design, student assessment, technology, and course evaluation and management. Each of these standards is supported by subcategories with indicators and a rubric (SREB, November 2006a; SREB, November 2006b).

In addition to having high standards for course development, Virtual VA has also adopted the SREB Standards for Quality Online Teaching and the Online Teaching Evaluation for State Virtual Schools, with some modifications. Based on the experience and collaboration of K-12 educators, national and regional organizations, state departments of education in SREB, and college and universities, the standards were developed to help define and delivery quality online instruction. The standards are divided into the following categories: Academic Preparation; Content Knowledge, Skills and Temperament for Instructional Technology; Online Teaching and Learning Methodology; and Management, Knowledge, Skills and Delivery (SREB, August 2006; SREB, October 2006). The implementation of these standards has clarified the expectations for all teachers and for consistent evaluation practices by the administrators of the program.
As with any program, communication is a critical component in disseminating information about Virtual VA to the school divisions in the commonwealth, as well as in providing guidance to students and parents. To facilitate effective communication of procedures and policies, Virtual VA publishes a robust website (www.virtualvirginia.org) which provides extensive information about the program, its staff, the courses offered and other key documents. Of particular importance to students and parents is the Virtual Virginia Student and Parent Handbook. This document outlines the expectations of the program and how it integrates with each school division’s student code of conduct and handbook. The website is also very useful to guidance counselors and other school division staff, as they work with families to provide accurate information about the opportunities afforded students by this unique program.

**Data Collection and Analysis**

Telephone interviews were conducted with the administrators of the Virtual VA program. Five of the six administrators were able to participate in this study. These interviews provided information used to formulate the historical analysis presented earlier in this chapter. Additionally, the researcher employed the grounded theory study approach proposed by Strauss and Corbin (1998) to code the data collected into meaningful concepts. This approach includes the following steps:

1. Open coding where the data are divided into components that reflect categories or themes.

2. Axial coding where relationships between categories are established.

3. Selective coding where categories and their relationships are connected to describe the phenomenon being studied.
4. Development of a theory which explains the phenomenon being investigated based on the data collected.

Finally, the research questions were addressed using the categories and relationships identified from the participants’ responses.

Data Analysis

The researcher analyzed the interviews using the tenets of grounded theory study. The responses to the interview questions were compiled for comprehensive representation of the participants input. After compiling the input, the responses were compared to identify patterns in the responses which were linked into meaningful themes relative to educational policy and practice. Not only was the identification of a response essential, but the repetitive identification of an idea or theme was critical to develop overarching systems within the respondents’ answers to the questions. Atlas.ti was used in establishing consistency in coding patterns in all responses and to assist in the development of relational constructs. Responses to questions 1 and 3 are omitted from the findings and subsequent data analysis, as the content of the information provided was uniquely tied to each interviewee. The answers to these questions provided the researcher with information upon which to understand the perspective and background of each administrator.

Survey Question 2

Survey Question 2 was: How would you describe the effectiveness of the program?
In response to this question and to others, the effectiveness of the program was linked to the mission of the Virtual VA program, more so than to specific data points. It became evident very early that the administrators were compelled by the mission of the Virtual VA program. They were quick to identify it by name, but to also further elaborate on its component parts. Without a doubt, the alignment of the program with its mission is a driving force, from the beginning of the online programs in Virginia through the evolutionary process of Virtual VA as found in its current format. The perception of the administrators is that the effectiveness of the program is inextricably linked to the achievement of the mission of the program. The responses from the interviewees were initially grouped into like categories, which included commitment to mission, communication, student measures, growth of program, technical advancements, and a strong faculty as illustrated in Figure 1.
Figure 1 - Factors which contribute to the perceived effectiveness of the Virtual VA program.
Table 1 lists the emergent themes that the administrators consistently identified as integral parts of the program’s mission, and which underscored the effectiveness of the program. While the mission statement does not appear on the website for the program, the cohesive understanding of it by the current administrators drives the decisions made regarding programming and the allocation of resources.

Table 1

Effectiveness of the Virtual VA Program – Impact of Mission

<table>
<thead>
<tr>
<th>Themes</th>
<th>Administrators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Underserved student populations</td>
<td>X</td>
</tr>
<tr>
<td>Teacher shortages</td>
<td>X</td>
</tr>
<tr>
<td>Rural school divisions</td>
<td>X</td>
</tr>
<tr>
<td>Schedule conflicts</td>
<td></td>
</tr>
<tr>
<td>Low student enrollment/demand</td>
<td>X</td>
</tr>
<tr>
<td>Lack resources/access</td>
<td>X</td>
</tr>
</tbody>
</table>

The effectiveness of the Virtual VA program was consistently linked by the administrators to several critical factors. By serving underserved student populations, Virtual VA provides access to rigor courses often unavailable to these students otherwise. Additionally, Virtual VA allows rural school divisions and other school divisions with limited resources the ability to provide high quality instructional programming and highly qualified teachers to students. School budgets are finite and the decision to offer courses
is often predicated on student enrollment, availability of qualified teachers and competing division initiatives. Virtual VA provides flexibility to school divisions in meeting the diverse needs of the entire school population.

Survey Question 4

Survey Question 4 was: Why do you think the Virtual VA program continues to grow when other online programs have not been successful?

Online programs in K-12 public education are growing each year due to many factors – equity of access for all students to high quality courses and teachers, the opportunity to retake courses for credit recovery, and the opportunity to increase graduation rates. Student enrollment in SREB virtual programs have increased from just over 48,000 students in 2005 to almost 158,000 in 2007 (SREB, 2007). In some states, students are required to successfully complete an online course in order to satisfy high school graduation requirements. Nevertheless, not all programs are deemed successful or are seeing increasing student enrollment requests.

The Virtual VA program has had increased student enrollment each year since its evolution from the VSEN program. The interviewees identified several factors that contributed to this ongoing growth. The range of initial responses from the participants is illustrated in Figure 2. Figure 2 indicates the variety of input from each interviewee clustered around the themes of communication, high program expectations, staff and student factors, national educational trends, and the commitment to the mission of Virtual VA. As with the other questions in this research, once the raw responses were captured the researcher studied the context of the responses and the repetitiveness of ideas to
formulate the specific themes being conveyed in unique manners by each Virtual VA administrator interviewed.
Figure 2. Factors cited which have impacted the growth of the Virtual VA Program.
Table 2 identifies the themes formulated from analyzing the responses of Virtual VA administrators. The most pervasive factor cited for contributing to the growth of the program was the commitment to providing high quality courses and high quality curriculum based on the SREB and iNACOL standards.

Table 2. Reasons for Growth of the Virtual VA Program

<table>
<thead>
<tr>
<th>Themes</th>
<th>Administrators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Dedication of staff</td>
<td>X</td>
</tr>
<tr>
<td>High quality teachers</td>
<td>X</td>
</tr>
<tr>
<td>High quality curriculum/courses</td>
<td>X</td>
</tr>
<tr>
<td>Communication</td>
<td>X</td>
</tr>
<tr>
<td>High expectations for stakeholders</td>
<td>X</td>
</tr>
<tr>
<td>Stability of staff</td>
<td></td>
</tr>
<tr>
<td>Design of instruction</td>
<td>X</td>
</tr>
<tr>
<td>Partnership with school divisions</td>
<td>X</td>
</tr>
<tr>
<td>Open to change</td>
<td>X</td>
</tr>
<tr>
<td>Meeting a need</td>
<td>X</td>
</tr>
</tbody>
</table>

Educational programs are begun every day in school divisions, to varying degrees of success. Virtual VA has grown in enrollment and in school divisions who participate each year since its inception, so it is important to consider the factors which have
contributed to its growth. Across the board, each interviewee underscored the importance of the program’s commitment to high quality curriculum and high quality courses as the preeminent factor in its growth. School divisions were assured of the content to which students were exposed and to the rigor of the courses. This commitment to high quality in curriculum is also mirrored in the program’s commitment to highly qualified and high quality instructional staff.

Throughout the program’s development, communication has been comprehensive and continuous. It is through its diverse communication channels that Virtual VA is able to express its high expectations for all stakeholders and to be responsive to stakeholder needs. By being sensitive and open to the stakeholder groups, Virtual VA has evolved in a manner that better meets the needs of students and school divisions, and to be seen as a partner to school divisions in their efforts to provide a comprehensive instructional program for students.

Survey Question 5

Survey Question 5 was: What is unique about the Virtual VA program as compared to other online programs?

When asked to identify unique factors regarding the Virtual VA program, the administrators admitted to having limited knowledge of other online programs. Each of them had only worked in the Virtual VA program in the K-12 setting, while two administrators had worked as online adjunct professors in higher education. With this admitted limitation, their responses mirrored many of the same components that they
attributed to the growth of the program. Figure 3 provides an overview of the unique characteristics provided by the administrators.
Figure 3. Factors which contribute to the uniqueness of the Virtual VA Program
Table 3 lists the overarching themes cited by administrators as being unique to Virtual VA. While the themes were not necessarily unique to Virtual VA in comparison to other online learning programs, the administrators were in agreement that it was the degree of commitment to these themes that made the Virtual VA program unique. The responses generated to this question were more focused and more readily identifiable in the raw responses.

Table 3. Unique Characteristics of the Virtual VA Program

<table>
<thead>
<tr>
<th>Themes</th>
<th>Administrators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Instruction</td>
<td>X X X X X</td>
</tr>
<tr>
<td>Quality Curriculum</td>
<td>X X X X X</td>
</tr>
<tr>
<td>Support – technical, mentors, professional development</td>
<td>X X X X X</td>
</tr>
<tr>
<td>Communication</td>
<td>X X X X X</td>
</tr>
<tr>
<td>Full time staff</td>
<td>X X</td>
</tr>
<tr>
<td>Dedication of staff</td>
<td>X X X X X</td>
</tr>
</tbody>
</table>

Besides underscoring the significance of quality instruction and quality of curriculum, the administrators were in agreement that the support structure for all stakeholders and high degree of communication were critical to the program and were
significant factors in defining the uniqueness of the Virtual VA program. Additionally, the dedication of the staff at all levels seemed to enhance the communication and commitment to excellence in providing a program of excellence.

**Survey Question 6**

Survey Question 6 was: Are students satisfied with Virtual VA? How do you know?

As an ongoing part of the Virtual VA program, each student is asked to complete an end-of-course survey to obtain quantitative information regarding their satisfaction. The survey results from spring 2009 indicate that a majority of the students are satisfied and would recommend taking an online course to other students, according to several of the program’s administrators. Students who are not satisfied indicate a variety of reasons for their dissatisfaction, ranging from technical difficulties to time management issues and misconceptions about the workload required for the course they took. While the administrators were all in agreement that students were satisfied, there was little consistency among their responses about the specific metrics or characteristics of student satisfaction. Figure 4 clearly shows the variety of input from the interviewees.
Figure 4. Factors cited that indicate student satisfaction.
The most common attribute associated with student satisfaction illustrated in Table 4 was that the students indicated a positive experience on the end-of-course survey.

Table 4. Satisfaction Factors of Students

<table>
<thead>
<tr>
<th>Themes</th>
<th>Administrators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Recommend to others</td>
<td>X</td>
</tr>
<tr>
<td>Positive experience</td>
<td></td>
</tr>
<tr>
<td>Student completion rate</td>
<td></td>
</tr>
<tr>
<td>Achievement on tests – e.g. AP, SOL</td>
<td>X</td>
</tr>
<tr>
<td>College Acceptance</td>
<td></td>
</tr>
</tbody>
</table>

There was less cohesiveness in the responses to this survey question than to others, which respondents attributed to the scarcity of succinct data gathered by the program. Most respondents recognized the need to focus greater attention on the gathering of data from students to enable the program to more concretely assess levels of student satisfaction. Nevertheless, each administrator indicated student satisfaction factors beyond the end-of-course survey, course completion rates and student grades primarily, based on email and face-to-face conversations. In these interactions, students frequently indicated a willingness to recommend Virtual VA courses to other students as
a positive option for course attainment. Students also expressed a competitive edge when applying to colleges by having had the opportunity to take AP courses in Virtual VA.

**Survey Question 7**

Survey Question 7 was: Are parents satisfied with Virtual VA? How do you know?

The information regarding parent satisfaction was nebulous. No parent surveys are administered and all information provided was anecdotal, at best. Each interviewee indicated that this was problematic and an area that had been discussed repeatedly, but no viable solution had been determined. Figure 5 shows the initial grouping of responses from each interviewee. Several channels of parent feedback were noted, but none was deemed comprehensive in capturing parent feedback. Additionally, a few responses alluded to the fact that parents were more hesitant to embrace the online learning environment than their children.
Figure 5. Factors which indicate parent satisfaction.
Overall, the perception of the administrators was that parents were satisfied because, or if, their children were satisfied. Table 5 lists the limited, but common themes expressed by the Virtual VA administrators.

Table 5. Satisfaction Factors of Parents

<table>
<thead>
<tr>
<th>Themes</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive feedback</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Student needs addressed</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Parent sharing with other parents</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Respondents agreed that this was an area in which the Virtual VA program had minimal credible information. While the administrators had all heard positive feedback from parents, there is no data-gathering instrument in place to document this important stakeholder group’s perceptions. The administrators alluded to the difficulty in obtaining and maintaining parent email addresses as a contributing factor to hindering data collection from parents. Nonetheless, the parents seemed to be satisfied if their students were satisfied and parents were known to share these experiences with other parents.

Survey Question 8

Survey Question 8 was: Is the staff satisfied with Virtual VA? How do you know?
As with the parents, there are no surveys given to staff regarding their satisfaction with the Virtual VA program at the end of the year. The researcher identified themes regarding staff satisfaction from the responses of the administrators. Figure 6 illustrates the initial responses of the interviewees.
Figure 6. Factors cited which indicate staff satisfaction.
Again, these themes were consistent among the administrators but did not have any metrics to support them. As indicated in Table 6, the administrators stated that collaboration among staff, communication, and professional development seemed to be the most important factors contributing to staff satisfaction. The administrative staff indicated that the lack of a survey instrument was an area of concern and a possible need for future years as they analyzed the program more completely. Staff surveys are given during summer professional development sessions, but the results of these were only mentioned by one interviewee and no aggregate analysis was given.

Table 6. Satisfaction Factors of Staff

<table>
<thead>
<tr>
<th>Themes</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Development</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mission Control (Teacher lounge)</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Value input of teachers</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Teacher stability</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Collaboration among teachers</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Communication</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Administrators were quick to express again the strong commitment that Virtual VA has to communication among and between stakeholder groups as a crucial factor in staff satisfaction. While not expressly developed as a data gathering tool, the activity and
communication logs of the online “Mission Control” forum for teachers clearly supports the collegial nature of the staff and their interest in each other’s success. The online forum also supported and encouraged collaboration among staff – perhaps even more so than in brick-and-mortar schools. Daily instructional, student and course questions were posted in Mission Control, as well as dialogues about procedures and policies. The administrators expressed that teachers felt extremely valued because their input was sought and incorporated into Virtual VA programmatic decisions.

Research Questions

Question 1

Question 1 was: What factors led to the development of the Virtual VA online program for high school students?

The current Virtual VA program is an evolutionary outgrowth of the Virginia Satellite Educational Network (VSEN) program begun in the early 80’s. VSEN was developed and implemented to provide Advanced Placement courses and world language courses to small, rural school divisions who did not have the resources or student enrollment to support offering these courses to students. VSEN also offered professional development courses for educators. School divisions, with funding from the E-rate program and Virginia Department of Education (VDOE), installed satellite reception systems to facilitate the ability of students to enroll in these courses. The success of the program, based on student enrollment and student achievement on AP tests, resulted in additional funding from the Virginia General Assembly in 1988. As the program expanded, broadcast origination sites were located across the state to augment course
offerings and to make courses even more accessible to students and school divisions. The program helped to alleviate educational disparity in Virginia, which tended to parallel economic hardships in communities. As unemployment increased and the tax base of communities decreased, school budget cuts led to reduced course offerings. VSEN provided student access to advanced courses, even when the local school division was unable to provide a face-to-face instructor (Weisiger, 1997).

At the same time that VSEN was growing, technology was advancing. Schools in Virginia were increasingly investing in computers and network infrastructure to support Internet access. Instead of replacing aging satellite equipment, VDOE reviewed the strategic vision of the VSEN program and made the decision to transition to an online delivery model. In 2004, Virginia's Virtual Advanced Placement School was launched in support of Governor Warner's Education for a Lifetime initiative. Governor Warner wanted all public school students, particularly high school seniors, to have access to earning college credit during high school, regardless of the community in which they lived. School divisions were encouraged to enroll students in the Early College Scholars program, where students agreed to attempt multiple AP or dual enrollment courses prior to graduation. Eligible students would have their tuition paid by VDOE, as well as the costs associated with taking AP exams (DeMary, 2004). By the fall of 2006, the Virtual Advanced Placement School had expanded its course offerings to include 16 AP courses and multiple courses in Japanese, Chinese and Latin. Agreements had been set up between VDOE and several Virginia colleges and universities which also allowed students to earn college credit through the Commonwealth College Course Collaborative (CCCC) for AP Psychology, AP U.S. History and AP Biology (Wright, 2006).
With the expansion of the course offerings to include non-AP courses, but courses requested by school divisions in alignment with the mission of the program, the name of the program changed to Virtual Virginia School in 2006. School divisions were not only encouraged to enroll students in courses, but were also directed by VDOE to place a link to the Virtual VA School on their web sites (Cannaday, 2006).

In addition to expanding its course offerings, the program was undergoing an organizational restructuring that enabled it to more effectively meet the needs of all stakeholders. As the transition from satellite delivery to online delivery was made, the support structure of regional centers for delivery of content was maintained. There were regional sites for English/Humanities, Social Studies, Mathematics and World Languages. Each site had a supervisor who operated with relative independence under the supervision of the Director of Virtual VA at VDOE. This arrangement has evolved to a centralized administrative and technical support staff to ensure quality of instruction and support.

Another factor which led to the expansion of the Virtual VA program is the language in the Virginia Code 22.1-253.13:1 that states “the fundamental goal of public schools of this Commonwealth must be to enable each student to develop skills that are necessary for success in school, preparation for life and reading their full potential.” In order to meet this mandate, schools must incorporate a robust K-12 program that is often difficult when resources are limited. Virginia Code further requires each school division to develop “a plan to notify students and their parents of the availability of dual enrollment and advanced placement classes, …” School divisions are also recognized for statewide recognition based on several factors – one of which is student enrollment and
success in AP courses. Students are eligible for awards based on exemplary achievement measured by successfully completing college-level coursework that will earn students at least nine transferable college credits. Each of these factors emphasizes the need for students to have access to multiple AP courses to challenge strong students and to enable them to be adequately prepared for college. Finally, Virginia Code 20-131-140 states that school divisions “shall include access to at least three AP courses or three college-level courses for degree credit.” The fact that Virtual VA offers 24 AP courses enhances any school division’s ability to meet the requirements set by the General Assembly and the Virginia Board of Education.

Question 2

Question 2 was: What attributes indicate quality instruction in an online high school program, and how does Virtual VA ensure the quality of the courses they offer?

Virginia is a participating member of the Southern Regional Education Board (SREB), which has been in the forefront of documenting and establishing distance learning practices and standards. They have published several documents that outline the facets of high quality online teaching, online teacher evaluation, online courses, professional development of online teachers, and technical guidelines. All of these facets are integral components of developing a successful and high-quality online instructional program. Virtual VA has incorporated most of these quality standards, with a few modifications, to align with the Virginia Standards of Learning objectives which govern the high stakes testing expectations for Virginia educational programs.
Each of the participating SREB states' K-12 and postsecondary educational leaders developed these guidelines in cooperation with one another and with input from national and regional organizations, colleges and universities. The guidelines for quality online teaching, as published by SREB and supported by iNACOL, include indicators in each of the following categories and standards:

1. Academic Preparation
   a. The teacher meets the professional teaching standards established by a state-licensing agency or the teacher has academic credentials in the field in which he or she is teaching.

2. Content Knowledge, Skills and Temperament for Instructional Technology
   a. The teacher has the prerequisite technology skills to teach online.

3. Online Teaching and Learning Methodology, Management, Knowledge, Skills and Delivery
   a. The teacher plans, designs and incorporates strategies to encourage active learning, interaction, participation and collaboration in the online environment.
   b. The teacher provides online leadership in a manner that promotes student success through regular feedback, prompt response and clear expectations.
   c. The teacher models, guides and encourages legal, ethical, safe and healthy behavior related to technology use.
   d. The teacher has experienced online learning from the perspective of a student.
e. The teacher understands, and is responsive to, students with special needs in the online classroom.

f. The teacher demonstrates competencies in creating and implementing assessments in online learning environments in ways that assure validity and reliability of instruments and procedures.

g. The teacher develops and delivers assessments, projects and assignments that meet standards-based learning goals, and assesses learning progress by measuring student achievement of learning goals.

h. The teacher demonstrates competencies in using data and findings from assessments and other data sources to modify instructional methods and content and to guide student learning.

i. The teacher demonstrates frequent and effective strategies that enable both teacher and students to complete self- and pre-assessments.

(SREB, 2006b; 2006d; 2009)

These categories and standards incorporate indicators that form rubrics and checklists for evaluating quality online instructors. These instructors must be supported by appropriate professional development and given appropriate resources to deliver high quality instruction. To this end, SREB participating states also developed clear standards for developing quality online courses (SREB, 2006a; 2006c), including the necessary technical support structures (SREB, 2005).

Virtual VA incorporates all of the aforementioned standards and checklists in the development of courses, as well as in the day-to-day observation and evaluation of teachers. The program encourages collaboration among staff through the "Mission
Control" center in its course management system and offers professional development in both online and face-to-face settings. While Virtual VA is open to input from all stakeholders, it does not have a research-based methodology for obtaining feedback from parents and staff.

Question 3

Question 3 was: How might Virginia educators and political leaders benefit from investing in the development of a robust Virtual VA program?

As Thomas Jefferson pointed out many years ago, an educated citizenry is critical to the success of a nation. Virtual VA, from its inception, is about affording opportunities to all students. Not only will Virginia benefit, but the nation benefits when students graduate from high school with a comprehensive knowledge base on which to pursue their career aspirations. From a pragmatic standpoint, why is Virtual VA important to Virginians?

1. State virtual schools provide courses that schools cannot or do not provide.

2. State virtual schools provide credit-recovery courses in support of improving high school graduation rates.

3. State virtual schools give high school students access to many different AP courses.

4. State virtual schools provide quality teachers to all middle grades and high schools, regardless of where the students reside.

5. State virtual schools provide students with access to quality teachers and quality courses to improve their chances of academic success. (SREB, 2007)
The existence of a robust virtual program in Virginia is important in lean economic times, as school divisions do not need to expend limited resources on courses and teachers that can be shared by localities. The online nature of the program eliminates the need for these localities to be proximally located and increases the efficiency of operational costs. Virginia’s leaders take great pride in the achievements of students, and Virtual VA has continued to keep Virginia’s students near the top of national rankings for AP achievement and as an E-Learning leader. Governor Kaine has been quite vocal about the achievement of Virginia students, stating that “these latest Advanced Placement results reflect the commitment of the commonwealth to broadening access to opportunities once reserved for the most elite students” (Pyle, 2008). Additionally, Virginia received an A- from Education Week due to its “low student-to-computer ratio, expanding online assessment program, rigorous technology standards and innovative online learning programs, including Virtual VA” (Pyle, 2009).

Question 4

Question 4 was: How does the programmatic structure of Virtual VA compare to other successful, online high school programs?

A wise investment of resources when developing a new program involves researching other established programs to determine their best attributes and implementing them into the new program, while improving upon the areas of identified weakness. The Virtual VA program evolved from a satellite delivery model to an online, Internet-based model over the course of a few years. The switch in delivery models resulted in the reevaluation of the methodologies being used to provide instruction,
support to students, support to school divisions, training and recruitment of teachers, and the development of an administrative structure. This radical change in technology enabled the administrators to create an educational structure that could facilitate the mission of Virtual VA and establish quality measures. With the vision of creating a high quality program, the leaders of Virtual VA incorporated the SREB and iNACOL quality standards for online courses and teaching (SREB, August 2006; SREB, November, 2006).

Virtual High School, Inc. (VHS) began in 1996 to provide online courses to high school students. Funding for VHS was initially provided by the United States Department of Education. Student enrollment in VHS has grown steadily since its inception, and courses are open to students in schools who are participating members of the consortium. There are varying levels of membership options for schools, and these options determine the number of students that can be enrolled each semester. The cost per student varies with the membership option selected by the school. VHS teachers are employees of their home schools, not VHS; however, VHS teachers are required to successfully complete training. VHS provides and requires extensive professional development training for all teachers. Since the purpose of VHS is to augment the student’s school offerings, it offers a variety of courses at many levels but does not award diplomas. VHS evaluates all facets of its program, both internally and through external entities. Due to its consortium structure, VHS is a private business and, therefore, does not have any direct ties to a public K-12 board of education.

The Illinois Virtual High School is an outgrowth of the Illinois Virtual Campus higher education program. Planning for the program began in the late 1990’s, and courses
were first offered in 2001. Funding was provided by the state of Illinois, and the
development of the program was supported by the Illinois State Board of Education.
Course offerings are diverse and attempt to provide participating schools with equitable
access to quality courses for students. Due to the finite budget from the state and fees
collected, enrollment is limited and the program does not award diplomas. The focus has
been on high school courses, with some middle school courses primarily for advanced
students. The program is evaluated using internal and external measures to ensure
quality. Teachers are employees of IVHS and are evaluated annually.

A study by Kiekel (2007) of VHS, IVHS and another virtual program identified
common themes among the programs. These themes were based on interviews and
surveys of administrators and teachers. Kiekel’s research is particularly relevant to the
research presented, as the Virtual VA program incorporates attributes of both VHS and
IVHS. The Virtual VA administrators interviewed reiterated in numerous responses that
the themes identified by Kiekel in 2007 were common themes that contributed to the
growth and success of Virtual VA. The analysis of the Virtual VA administrative
interviews, as noted in Table 7, shows a clear alignment of key characteristics among the
three programs.
Table 7. Comparison of Common Attributes of the Virtual VA Program with the Virtual High School and the Illinois Virtual High School (adapted from Kiekel, 2007).

<table>
<thead>
<tr>
<th>Theme</th>
<th>Virtual High School</th>
<th>Illinois Virtual High School</th>
<th>Virtual VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Courses</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Professional development</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Quality control</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Question 5

Question 5 was: What future developments in online learning might impact Virtual VA and its ability to meet the needs of its constituencies?

As access to the Internet saturates the nation, online learning will become more accessible to all students. Additionally, as mobile electronic devices with Internet capabilities become increasingly less costly, more students will have Internet access at school and at home. Due to the institutional structure of current school divisions, there is anxiety about the role of online learning versus the traditional face-to-face model that generations of people have completed. There is much debate about the relative merits of each model of instruction, and this fluidity has caused some educators to impede the integration of online courses into their schools. This period of flux puts students in the middle, as teachers and building-based staff fear for their jobs and communities face the
burden of building new schools to replace aging facilities. With the current economic crisis and the growing research base of successful student achievement in the online environment, online learning may appeal to many constituencies for a variety of reasons and may be the impetus for the next educational shift in America.

**Summary of Chapter IV**

The data and a summary of the findings were presented in this chapter. The participants’ responses were recorded, compiled and analyzed to identify common themes and topics related to each research question and the historical analysis of the Virtual VA program. Subsequently, the Virtual VA program’s themes were compared to the common strands identified by Kiekel (2007) in both the VHS and the IVHS virtual programs.

The administrators strongly advocated for the continuation and growth of online education for high school students. The key components that they identified as making the Virtual VA program successful mirrored many of the same constructs identified in the VHS and the IVHS programs. While the Virtual VA program is relatively young, it has grown quickly through a strong commitment to national and state standards for quality instruction, quality courses, quality teachers and strong communication with all involved stakeholder groups.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to investigate the development of the Virtual VA program for high school students. This was a qualitative study of the policies, procedures and principles of the program. Furthermore, the Virtual VA program was compared to other, more tenured, successful online high school programs to determine what characteristics these programs have in common and how that may impact the quality of instruction. It is an historical analysis of the Virtual VA program documenting the development of the online secondary program, as well as a qualitative analysis comparing this program with the Virtual High School, Inc. and Illinois Virtual High School programs. The analysis identifies the strengths of the secondary online programs for future growth, and provides a foundational study of an emerging program in Virginia.

The study is organized into five chapters. Chapter I introduces the study and includes a statement of the problem, the purpose of the study, and research questions. The chapter also provides definitions of terms, a discussion of limitations and delimitations and provides the significance of the study.

Chapter II provides a review of the literature on virtual learning and its impact on educational organizations and invested parties – students, parents, educators, school divisions and policy makers. The chapter begins with a discussion of the development of distance learning as a meaningful instructional modality and its maturation as technological advancements have been made. The significance of available resources to
fund the infusion of technology into public schools is also discussed. The challenges of virtual learning in the K-12 environment are described, as well as perceived advantages of online learning. Successful virtual programs are outlined as a foundation for understanding the complexity of their implementation. Additionally, a description of the development of the Advanced Placement Program and its merits are given.

Chapter III includes an explanation of the research design and methodologies implemented in this study. The chapter includes the design of the study, a description of the sampling techniques, and a description of the instrumentation – including a brief discussion of its validity and reliability. Methods of data collections and analysis are also presented.

Chapter IV includes an analysis of the data and findings, including discussions of methodologies. The data is organized in response to the research questions and summarized.

Finally, Chapter V provides conclusions and recommendations for future implementation of virtual programs for students enrolled in AP and other courses. It also enumerates policy and practice issues for educators to consider as they expand and incorporate online learning into schools. Broader implications of the study are shared, along with recommendations for future research.

Summary of the Findings

New models of instruction have emerged, based on advances in technology. The incorporation of the Internet into schools and homes has fueled a paradigm shift in how teaching and learning occur (Alessi & Trollip, 2001). Virtual VA has emerged in concert with the expansion of the Internet in Virginia schools from its early identity as Virginia
Satellite Educational Network (VSEN). It has also grown in response to the Virginia General Assembly’s mandate for each high school to provide Advanced Placement courses for students. Virtual VA augments school divisions’ resources by providing equitable access to Advanced Placement courses for all students.

The findings of this study underscore the importance of developing an online secondary program based on a clear mission and a constant reference to that mission in all facets of decision-making processes. The goal to serve underserved students, and to provide access to advanced courses to students who would otherwise not have access, has guided the work of the administrators of Virtual VA. Additionally, the staff has a strong commitment to providing quality instruction and courses, through the implementation of SREB and iNACOL standards for course development, instructional delivery, teacher selection and teacher evaluation. Underlying the entire program is a strong communication system that values and seeks input from all stakeholder groups – some formally and others informally.

Conclusions

Distance learning has been a part of educational programs for decades, with an early emphasis for integration in higher education programs to meet the needs of adult learners who needed access to alternate scheduling options. As the technology readily available to students and schools has evolved, so too has the nature of distance learning’s moving, from radio broadcasts and taped instruction, to satellite broadcasts, and finally to the Internet. In little more than a decade, the United States has undergone an explosion of virtual programs for secondary students where none existed previously (SREB,
This growth has spawned many online programs of varying degrees of quality and access.

The Virtual VA program is the current iteration of the long-standing distance learning instructional model sponsored by the Virginia Department of Education and the Virginia General Assembly. It compares favorably with other, more tenured and successful, programs due to its emphasis on a well-defined mission and the allocation of resources to effectively meet the mission. These findings are consistent with the work of Sacks (2003) and Kiekel (2007). Additionally, the emphasis on frequent student-teacher interactions is supported in the research (Kindred, 2003; Meyer, 2003). The program’s commitment to meeting the needs of underserved students and rural school divisions in economically challenged times is also consistent the work of Donlevy (2003), Gagne & Shepherd (2001), and Maeroff (2003). Furthermore, its commitment to delivering high quality courses and the retention of high quality teachers is contributing to its growth and success.

The openness of the program to changing its administrative structure contributed to its ongoing growth and should be maintained. Its emphasis on collaboration is consistent with the work of several higher education models, such as the Massachusetts Institute of Technology’s OpenCourseWare project (2007). Virtual VA values input from teachers, students and parents; however, it does not have the strong external evaluation process which it needs to implement in order to have credibility and to meet growing accountability measures. Finally, the Virtual VA program is a viable instructional model for fostering student achievement in Advance Placement courses.
**Recommendations**

Based on the findings of this study, the following additional areas are recommended for consideration:

**Recommendations for Practice**

1. Virginia school divisions should provide students the opportunity to take online courses through the Virtual VA program. Secondary programs in other states and across the world should explore high quality online programs and make them accessible to students.

2. Secondary schools should encourage teachers to explore online training and teaching opportunities to expand their exposure to and expertise in online learning and pedagogy. A more educated and informed teaching profession will contribute to, and support, this unique learning environment.

3. Technical infrastructures in all schools should be developed and maintained, with the intent of supporting online coursework by teachers and students.

4. All schools should educate staff, parents and students on the availability of high quality online courses and to consider this unique learning environment as a viable option.

**Recommendations for Policy**

1. Secondary schools should promote the integration of online coursework for all high school students.

2. Educational institutions in all arenas should explore the implementation of online delivery models for credit recovery, drop-out prevention and other unique student circumstances.
3. Public and private schools should explore online instructional options to better allocate resources in lean economic times.

4. An external research firm should conduct regular and periodic evaluations of the Virtual VA program. Beyond Virtual VA, online programs should incorporate external evaluations as a standard for analyzing attainment of program goals and effectiveness in meeting stakeholder needs and expectations.

5. Virtual VA should incorporate a standardized survey instrument for parents and staff to collect input from these groups.

Recommendations for Future Research

1. A longitudinal research study evaluating the achievement of students enrolled in Advanced Placement courses in Virtual VA should be conducted and compared to students who receive face-to-face instruction.

2. Studies should be conducted for each stakeholder group of Virtual VA to include focus groups that explore program satisfaction, areas of concern and other factors for program improvement.

3. Additional studies of other virtual secondary programs should be conducted to expand the knowledge base of K-12 online programs.

4. A long-term study of students who enroll in online courses versus those who do not should be conducted to determine college success, career patterns, and other post-secondary characteristics.

5. The implementation of Course Management Software in online programs should be compared with user satisfaction.

6. This study should be replicated in five years.
Concluding Remarks

Expectations for delivering a comprehensive, high quality educational experience for every student is at an all-time high for schools across the nation. The need to graduate students who are capable of navigating in the global community has never been more important. To this end, schools are looking for more ways to educate and to prepare students for the world beyond high school with increasing accountability measures, such as the No Child Left Behind legislation. Increasing the challenge of achieving success is the trend of diminishing available resources to provide a vast array of courses, hire and retain high quality teachers, and aging facilities. Online programs are one option for augmenting a school’s program of studies without requiring additional buildings or staff. However, the emphasis needs to be on delivering quality instruction, not just exposure.

The Virtual VA program, with the support of the Virginia General Assembly and the Virginia Department of Education, is a strong, emerging online program that meets the needs of school divisions across the state, and more importantly, provides students with access to high quality courses and highly-qualified teachers.
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APPENDIX A – Informed Consent Form

SETON HALL UNIVERSITY

Informed Consent Form

Affiliation:
Linda Reviea is a Seton Hall University College of Education doctoral student enrolled in the Department of Education Leadership, Management, and Policy Executive Ed.D. Program. She is currently employed as the Deputy Superintendent of Instruction and Support Services in Poquoson City Public Schools in Poquoson, VA.

Purpose of the Study and Expected Duration of the Subject’s Participation:
The title of the study is An Historical Analysis of the Virtual VA Program. The purpose of the study is to investigate the development of the Virtual VA program for high school students and to compare the program’s attributes with other more tenured virtual programs for high school students. All Virtual VA administrators will be given the opportunity to participate in a telephone interview as a part of the data collection for this dissertation. The interview is voluntary and will take approximately 30 minutes to complete.

Procedures for the Telephone Interview
After each Virtual VA administrator has been sent an email of solicitation and agreed to participate by signing an Informed Consent Form, the researcher will contact each participant via telephone to schedule a convenient time to conduct the interview. The interviews will be scheduled in May based on each participant’s work schedule. Participants will have until June 15, 2009 to complete the interview.

Interview Instrument
The interview instrument is based on a doctoral dissertation of a virtual program in Massachusetts. The interview consists of 11 questions designed to generate discussion about the development of the Virtual VA program and the administrator’s perception of the program. A few of the questions are listed below:

1. Why do you think the Virtual VA program continues to grow when other online programs have not been successful?
2. What is unique about the Virtual VA program as compared to other online programs?
3. Are students satisfied with Virtual VA? How do you know?
4. Are parents satisfied with Virtual VA? How do you know?
Voluntary Nature of the Study

Participation in this study is completely voluntary. No one is required to be a part of an interview. Refusal to participate or discontinued participation at any time will not involve any penalty or loss of benefits to which a participant is otherwise entitled.

Anonymity:

Since participation in the interview process involves one-to-one contact which makes anonymity impossible during the data collection phase of the study, the researcher will keep all responses confidential and all data collected will be reported in an aggregate format. Transcripts of the digitally recorded interviews will be made by the researcher to eliminate any voice recognition of the data. No individual data will be reported in the dissertation.

Confidentiality of Data

No individuals will have access to the list of interview participants for this study. The data analysis will be included in the dissertation; however, no names of participants will be included in the dissertation. Only the researcher and her dissertation committee will have access to the raw data. The data will be locked and stored in the researcher's fire-proof safe for three years after completion of the study and at which time it will be destroyed.

Records Storage

The data from the study will be stored on USB memory keys and kept in the possession of the researcher. Only the researcher and her dissertation committee will have access to the raw data. The data will be locked and stored in the researcher's fire-proof safe for three years after completion of the study and at which time it will be destroyed.

Risks

There are no risks to participants in this study.

Benefits

The results from this study will be used to document the development and attributes of the Virtual VA program. This information will be useful to school divisions and administrators as they seek to determine the viability of the Virtual VA program for their students. There are no benefits in this study, monetary or of any other nature to the participants.
Alternative Procedures

There are no alternatives to participate in the interview protocol.

Contact Information

The researcher for this study may be contacted with questions or concerns regarding this study at the address/email below:

   Linda G. Reviea
   Deputy Superintendent of Instruction & Support Services
   Poquoson City Public Schools
   500 City Hall Avenue
   Poquoson, VA 23662
   757-888-3056
   lreviea@poquoson.k12.va.us

Her Seton Hall University faculty advisor is Dr. John W. Collins, Jr. Dr. Collins may be contacted with questions or concerns regarding this study by contacting him at the address/email below:

   John W. Collins, Jr., CPP, Ed.D.
   Associate Professor and Graduate Program Coordinator
   New Jersey City University
   College of Professional Studies
   Professional Security Studies Department - Room P444
   2039 Kennedy Boulevard
   Jersey City, NJ 07305-1597
   (201) 200-3179
   jcollins2@njcu.edu

Dr. Mary F. Ruzicka, the Seton Hall University Institutional Review Board (IRB) Director, may be contacted for information about participant's rights at the address/email below:

   Dr. Mary F. Ruzicka
   Seton Hall University
   Office of the Institutional Review Board
   President's Hall Third Floor
   400 South Orange Avenue
   South Orange, NJ 07079
   973-313-6314
   irb@shu.edu
Digital Recording

Participants are asked to give written permission for the interviews to be recorded using an iPod.

The researcher and her dissertation committee are the only individuals who will have access to the recordings. The researcher will transcribe the recordings which will be stored on the iPod and kept in a secure, locked safe in the researcher's office for three years after which time the recordings will be destroyed.

Interview Participants

Participants who agree to participate in the interview must return a signed Informed Consent Form prior to the interview through the mail by May 11, 2009 to:

Linda G. Reviela
Deputy Superintendent of Instruction & Support Services
Poquoson City Public Schools
500 City Hall Avenue
Poquoson, VA 23662
757-868-3056
lreviea@poquoson.k12.va.us

Subject Date

Seton Hall University
Institutional Review Board

MAY 05 2009
Expiration Date
MAY 05 2010

College of Education and Human Services
Executive Ed.D. Program
Tel. 973.275.2728
400 South Orange Avenue • South Orange, New Jersey 07079-2685

A HOME FOR THE MIND, THE HEART AND THE SPIRIT
### APPENDIX B – Virtual VA Course Offerings for 2010-2011

#### Fine Arts
- AP Art History

#### Language Arts
- Creative Writing
- SAT Prep (fee based, .5 credit)
- World Mythology
- AP English Language & Composition
- AP English Literature & Composition

#### Mathematics
- PreCalculus
- Math Analysis
- AP Calculus AB
- AP Calculus BC
- AP Computer Science A
- AP Statistics

#### Science
- Chemistry (Honors)
- Earth Science I
- Physics (Honors)
- AP Biology
- AP Chemistry
- AP Environmental Science
- AP Physics B

#### Social Studies
- Economics (.5 credit)
- Psychology (.5 credit)
- World History & Geography I
- AP European History
- AP Government & Politics: Comparative
- AP Government & Politics: US
- AP Human Geography
- AP Macroeconomics (Block only)
- AP Microeconomics (Block only)
- AP Psychology
- AP US History
- AP World History

#### World Language
- Arabic I
- Chinese I
- Chinese II
- Chinese III
- Chinese IV
- French I
- French II
- Latin I
- Latin II
- Latin III
- Latin IV
- Latin V
- Spanish I
- Spanish II
- Spanish IV
- Survey of World Language & Culture

#### AP Chinese Language & Culture
- AP Chinese Language & Culture

#### AP French Language
- AP French Language

#### AP Latin: Vergil
- AP Latin: Vergil

#### AP Spanish Language
- AP Spanish Language

#### Middle School Courses

#### New 2010-2011 Courses
- *Offered in full year format only
APPENDIX C – Virtual VA Administrator Interview Questions

1. What is your affiliation with the Virtual VA program?

2. How would you describe the effectiveness of the program?

3. What factors influenced you to become involved with the Virtual VA program?

4. Why do you think the Virtual VA program continues to grow when other online programs have not been successful?

5. What is unique about the Virtual VA program as compared to other online programs?

6. Are students satisfied with Virtual VA? How do you know?

7. Are parents satisfied with Virtual VA? How do you know?

8. Is the staff satisfied with Virtual VA? How do you know?

9. What changes have occurred since the inception of Virtual VA?

10. How is the quality of instruction and courses ensured?

11. Who else would you suggest I speak with in conducting my research on Virtual VA? Are there any publications/theorists you would recommend that I include in my work?

Interview questions are based on Sacks (2003)
APPENDIX D – Telephonic Interview Transcriptions

1. What is your affiliation with the Virtual VA program Interviewees A, B, C, D, and E?

   This reply was removed after analysis to prevent the subject’s identity being disclosed in maintaining the research principles of confidentiality and anonymity.

2. How would you describe the effectiveness of the program?

   Interviewee A

   I feel that virtual Virginia absolutely meets its mission. Our mission is to serve the underserved schools that are not able to provide the quality instruction or not able to provide instructors for special courses and urban rural areas that don’t have the resources is the first part of our mission. We obviously serve beyond that large and small school divisions and all various type of settings but I believe that because that’s our mission you will find that that’s what virtual Virginia strives hard to do and we have seen lots of reports with AP scores with the groups of courses that we offer. We have results that show the scores in the student’s success on AP scores are equal and even better versus on what they do in an online environment versus face to face I think we are beginning to see the data that supports the effectiveness of the program.

   Interviewee B

   The percentage researched is above 90% which has increased each year in terms of students completing the course. The first year we did the program it was just the percentage of those who completed the course, after that we started to look at the grades that they use but the percentage is still increasing. So I think each year we get stronger as
a program not only as a faculty. Research says that it takes about 5 years to get a strong core of faculty so we are just headed into year 4 but you know each year the instructors that have been with us since the beginning I think are even better teachers today than they were before and have really mastered skills needed to teach in the online environment and I think we are seeing that in terms of the outcome with their performance on AP exams we are seeing an increase each year in terms of student averages on the tests and the percent pass rate on their organization as a whole. So I think the program has been very effective. I think the number of students that are getting into really competitive programs that they are really finding very small rural areas that they would not have access to really more honors or AP type courses cause its state regulation that they only have to have access to 2 in their school building. We are an avenue to the students that live in that part of the commonwealth to really have access to a greater variety of courses. We had a graduate last year who took 7 AP's when his high school only offered 2 and now he is in an honors college at the University of Alabama. We also had another student who was the first student from his school to get into Princeton and both the child and the principal have both shared with us that they feel it is really because the child had access to Virtual VA and was able to make that child a competitive applicant with others who were from more affluent and larger districts who had larger number of course enrollments and had more money to offer a wider variety of course selections. So I think the program has been very effective. The program is of course not perfect but I think there is a strong desire in the programs part to each year get better and improve and to solicit honest feedback because whenever you open it up things that people say aren’t necessarily always the best. So you take a look at that and you look at your weakness and think how
can you make that weakness a strength and I think that is what we have tried to do. The pass rate is about 60% as of last year which is an increase over the year before which was like 58%.

Interviewee C

I think it is an effective program for a number of reasons. First of all I think that we meet the mission that we are set out to meet. Our mission is to serve the underserved in VA. You probably know that originally Virtual VA was the old VSEN program and that was really set up for students in rural school divisions who couldn’t get access to some of the courses that we could offer. Especially the AP courses and some of the World Language courses. I think we do a very good job of providing instruction for those students. One of the things that has kind of evolved with Virtual VA as we have moved from the satellite delivery to the online delivery, I think that more schools have found it easier to access our program. The satellite program was a little cumbersome, especially towards the end of the program the equipment was finicky and hard to keep up. People were not quite sure how to set up their satellite equipment to receive the satellite signals and so I think that in some cases some people just didn’t participate in the program because they found it difficult to access. Once we moved to online delivery I think people found it a lot easier to access. We find now that we have school divisions participating in the program larger urban school divisions who can offer some of these courses, but it’s a great opportunity for students to be able to take extra courses or for students to take care of schedule conflicts that they have. If they have a couple of singletons at the same time in the schedule; under normal circumstances they would have to choose one of the two but with Virtual VA they can choose one in the building and take one through us. So I
think that that part of the mission we are very successful in meeting and I think that the
other side of the coin is not just making courses available but do the courses meet the
needs of the students. For example, are the courses high quality courses, do they prepare
the AP students for the AP exam and I think we are doing a great job with that as well.
We just got this year's AP scores back so we really haven't had to time to look at them
really closely. We know that this year's AP scores are higher than last year the 2008
scores. So we are happy with that and we know in general that our scores this year are
higher than last years. We don't have the state scores, the face to face scores to compare
them to yet. We probably won't have those for another 6 months or so I think. So the
only comparison we have is the 2008 scores and when we looked at the state as a whole
on the AP scores and we looked at Virtual VA AP scores there was really no difference
in how students scored on the test. The mean score for the state in 2008 was 2.78 and the
mean score for Virtual VA kids was 2.71. So I think we are doing a great job in both
areas. The world language is a little bit harder to compare because we really don't have
standards that we can compare our students to. Just this past year we had our language
students participate in national testing that we could locate. For example, last year we had
our Latin students participate in that. We had a lot of difficulty finding a Chinese test. We
finally found one and had our students participate in that. One thing that we are finding is
that there is a mismatch in our curriculum and those tests. So I don't think we are at a
good point yet where we have a handle to make a good comparison. I need to back up;
really we are just starting to move to core courses so we really don't have SOL results to
make a comparison. The only good standard we have right now is the AP scores. Judging
by those it appears that our students are getting an education that would be equivalent to what they would get in a face to face setting.

Interviewee D

I think the program is very effective. We survey our students to get their feedback and it would probably be very helpful if you talked to Erin Berry who oversees our survey process. Our students benefit from our commitment to our mission – to teach the underserved. With that as our focus from the beginning and our focus today, we have been able to achieve our mission and that has benefitted our students.

Interviewee E

I would describe it as very effective.

3. What factors influenced you to become involved with the Virtual VA program?

Interviewees A, B, C, D, and E

This reply was removed after analysis to prevent the subject’s identity being disclosed in maintaining the research principles of confidentiality and anonymity.

4. Why do you think the Virtual VA program continues to grow when other online programs have not been successful?

Interviewee A

I don’t know enough about statistics about other programs to be able to know or quote the success or not successes really of other programs, but I think I can probably speak a little bit more about the success of Virtual VA and what we have seen. I think that you know that the trend has been an increase in enrollment in online nationwide, internationally actually and I think for Virtual VA it’s a number of factors; I think we
have a dedication probably of a high level of dedication from our administration from our faculty from our staff and I think that’s probably critical. I think we have a very high standards and expectations that we set for our teachers for ourselves for administrators and for our students and I think that the high level is attributing factor for that. I think we offer quality courses; I think that we definitely strive very hard to provide that for our teachers and for our students. I think because that Virtual VA is sometimes different from face to face experiences that the tool we provide tools, as a tool to provide individualized instruction for students and to really work hard to meet their individualized needs I find that that’s something that Virtual VA really strives hard to do and I think that all of that together there is probably a ton of things but I probably those are the top things that come to my mind that really help us to provide that growth and success of the program.

Interviewee B

I think it’s a good program and I think when programs are effective the students enjoy their experience just as there is in a regular building as this is the class to take because kids enjoyed it and enjoying the experience and then they tell their friends I think that is part of the growth. I think there is a growing interest nationally about online learning with several of the state initiatives that have come out like Michigan who is requiring some type of online experience for their students. I think that this 21st century learner is different. They are so immediate in terms of the media outlets that they use. It is really how they communicate and learn and I think we try to tap into that. The way the courses have been designed and really using the children’s natural way to communicate with each other and then to construct learning and from that perspective too. I think that’s part of it, it has been a partnership that has worked well for school districts and they
supported it. The program was never about replacing face to face. It has never been a goal for Virtual VA and it will never be a goal to replace face to face instruction. That will certainly be a first choice in an area where that is not an option and this program is. So from a counseling perspective where as when I first started as a counselor and I had a child with a lot of singletons in their schedule, I would have to say to the child you have to choose between your AP Spanish class and your AP Gov’t class. Now a counselor doesn’t have to do that, because they have Virtual VA so they are able to take the class in the building and from the computer. So no longer do they have to worry about affecting their ability or opportunity to get into a good college.

Interviewee C

There are two parts to that question; one why is it successful and why does it continue to grow. When I look at the statistics in keeping pace generally online programs are growing everywhere. There is a small percentage of online programs that are reporting a decrease in enrollment, but overall online education is booming everywhere. You see new state programs popping up in states that have never had online programs before and you see online programs in states that are growing. I think that Virtual VA is a good example they are now up in over 100,000 in enrollments. If there are programs that are not successful I think that is not the norm. Most online programs are seeing a lot of success. I think it goes back to Clay Christiansen’s observations in disrupting class and that is that there is a niche out there for it and I think the niche is growing. I think that as people are discovering online education that they are finding that it gives them much more flexibility. So with that being said, why do I think that Virtual VA is successful? I think it is because we deliver a quality product and we meet needs that up till now have
been unmet. We talked about them earlier; rural students who can’t access AP Physics or AP Biology, urban students who have schedule conflicts, home-school students whose parents don’t feel comfortable trying to teach because they don’t have the background to teach some of the subjects, and private school students. I guess I need to go back because I mentioned home-schooled and private school; they are only a small part of our population. The vast majority of our students are public school students in Virginia. Not only do we meet a need but we provide a quality product and so word gets out. We have seen that happen in some of the schools. We have a few students in the program that like the program and the next year we have more students enrolled in the program. I think when you meet a need and provide a quality product people will come.

Interviewee D

I am not sure about how successful other programs have been since I know that lots of online programs are popping up, but I would say that we have been successful because of our commitment to our mission. It has been something that we have really stuck to throughout the evolution of our program. We also are very supportive of our teachers and try to provide them with lots of professional development and resources to be effective teachers. Another thing that we do is to keep our teacher-student ratios manageable. I know of other programs where they allow teachers to get overwhelmed with students and that just doesn’t work in our program. We expect our teachers to interact with their students regularly and that just isn’t possible when you have so many students. I also think that we are committed to solid curriculum for our courses. By using the SREB/iNACOL standards as our model, I know that our students are getting high quality instruction from the course material and the teachers. Ultimately, I think it is
about communication. We communicate with the teachers, the school divisions, the mentors, the guidance counselors and each other. I can’t stress that enough as a critical part of who we are.

Interviewee E

I think we invest a lot in our teachers in terms of training and support. I think that we are open communicators with the school divisions with which we work. I think that really insists in really increasing the program. I think we are avid researchers on what the divisions need, what courses they are looking to find that they are not able to offer. So I think what we try do to make ourselves a useful and quality program.

5. What is unique about the Virtual VA program as compared to other online programs?

Interviewee A

Well, I think again it goes back to the rigor and the quality of the courses that we offer. I can tell you that first hand I have been involved with a number of development projects and I have had the privilege of viewing courses from other organizations and in some cases we have done some trades with even other organizations at the department of education level. I truly have always felt like what we have turned to people or have been able to give to other organizations has been something that we have been proud of because of the amount of quality or the amount of work that is in them and I don’t know that we have gotten that back in return so I think that I can boldly say that I think there is truly quality in our courses. We have high communication standards for our teachers in how much and how often and the different types of communication for our instructors to work with our students and I think that that’s probably a contributing factor. Most of our
teachers are full time teachers where I have found often that in other organizations and have attended several national conventions and listened to other states talk about the make-up of their staff and the roles of their staff and I have been surprised at how many organizations function on all part time teachers and I think that’s huge for Virtual VA and that probably we have a couple things, we have mentors located in every school division. Every school division provides mentors in their local schools, so to have a personal contact there that helps the students with staying on task. I think that’s a unique position and creation to the program. Again I think it’s the faculty and staff and the amount of hours and devotion that they put in.

Interviewee B

I think that what we require of our teachers in term of the student contact is different. Our student pupil ratio is different and I think is a plus on the side of Virtual VA. We keep the class sizes manageable and the teachers can really do what we advertise. That’s really a lot of individualized instruction, a lot of one on one work that they do. They have sections of students like a regular classroom would with about 25 students per classroom but they have the ability to take each individual kid and work one on one whereas the classroom teacher doesn’t. I think the numbers allow that to happen. Having never worked for another virtual program all you know is what you see on websites and I don’t know that that is a good basis to make up a statement about.

Interviewee C

I don’t know if it is unique just to Virginia but I’ll tell you some of the things. When you look at online programs you find that there is a wide variety of how they deliver the instruction is different from program to program. The quality of the content
that they provide is different from program. The amount of teacher interaction that is expected of students varies from program to program. What sets Virtual VA apart is that it is one of those programs that has very high standards. We use the standards for quality online courses and the standards for quality online instruction that were first produced by SREB and then were adopted by iNACOL. We use the standards for quality online instruction as the basis for our observation evaluation document that we use with our teachers. We take the standards that are in that and modified the indicators based on what we are looking for with our teachers in regards to our standards. The standards for online instruction are written with the idea in mind that teachers are going to create that course and then teach it. That’s not our model; the course is already created and already exists. The teacher comes in as expected to facilitate that course. So some of those indicators that are in the national standards for quality online instruction don’t really fit with our model. So what we have done is we have taken what was there and we have added to it some indicators that we think are important that related to those standards and that’s what we use. So I think that we try to provide that level of quality that we try to meet those standards, but I’m not sure that all programs do. That’s one thing that is unique about Virtual VA. One of the pieces of that is communication piece; we require our teachers to have communication with our students on a regular basis, which isn’t necessarily true for online programs. I know that we have a student teacher ratio that is not, I won’t say its low because I think it is appropriate. But normally a full time teacher has about 100 students, but I know some online programs that will have one teacher with as many as 200 students. It is difficult to give each student that individual attention and teaching online is a lot of one on one work. It is hard to give each one the individual attention they
need when you have let's say 200 students assigned to you. I think that we try to see to
give students what they need.

Interviewee D

I guess you could take most of what I said in the last question and repeat it here.
Communication, communication, communication. It cannot be emphasized enough. I
think it makes all of our teachers feel like they are part of a school faculty – even though
we don’t see each other frequently, we know each other. The VDOE staff stays on top of
corns raised by teachers, parents and students which is really important. I think that is
one of the reasons our students are satisfied with their experience in our courses.

Interviewee E

I think there is a lot of things that make us unique, but I think at the end of the day
that it is all about quality instruction, quality curriculum, and support. I think we provide
them fabulous instructors and the tools they need to work with their students. I think we
have kind of a goal of hiring full time instructors as opposed to part time instructors to be
able to provide the student with someone that they can communicate with and we have
such a focus on communication. That is such a huge part of our organization. The
communication between the instructor and the student, that kind of direct day to day
instructional communication. I think we are also very open with all of our stake holders.
We communicate on a regular basis with the school counselors that we work with and the
school mentors who are there on the ground with the students. We will go out and do
school visits and we will work to the end with the school technology personnel to get the
software up and running with the division. That level of openness and communication
really makes us unique.
6. Are students satisfied with Virtual VA? How do you know?

Interviewee A

Well, we do an end of course survey for every student when they end the course and we also do other specialized surveys for specific courses. Of course not every student takes that survey but we tend to have really high results from what we get when you look at their data. We also ask if they would recommend a Virtual VA course to a friend or another student and the answers come back above 55% for those who would recommend it and about a 20% who wouldn’t. Then you have in between numbers that vary on their level of dedication or neutral in position of that. So out of the students that answer the end of course survey the results come back over half are positive in providing positive feedback and constructive criticism that we take and apply to the program.

Interviewee B

Well we do a student survey at the end of the year and we ask different things like, would you recommend Virtual VA to someone else or would you take another Virtual VA class. We ask questions about the content and the pacing of the course. We compare that all to their expected grade of the course so you can start to see how much of this a child that’s not doing well is and sometimes they are teenagers and the comments are very teenager like so you kind of have to like separate things out and take a look at things. The students are overwhelmingly very pleased with their experience in the course. In instances where they say they wouldn’t do another one of these again they feel a lot of I didn’t realize the amount of independence and I’m not a person who can handle independence. So it wasn’t necessarily related to the course or the program as much as it
was the nature of online learning wasn’t working for that child. So I think that overall they are.

Interviewee C

I believe they are satisfied. We do an end of course survey and the end of course survey last year said that 55% of the students would recommend Virtual VA courses to other students. There were 20% that said they wouldn’t and another 25% that either didn’t respond or were neutral. But I think that when over half of your students say they would recommend the program to someone else that indicates that students are happy with the program. In a number of cases where students had difficulty with the program what they indicated was that sometimes they had over booked themselves. We have a number of students who are trying to carry a lot of AP courses sometimes carrying this on top of a regular schedule at school and what they found was that they just couldn’t handle it. Another thing that they mentioned in the survey is that a lot of the students say the course is as hard as or harder than the courses in the building and to try to take that on as long as a full schedule is difficult. Some students come in thinking that an online course would be easier.

Interviewee D

Most of the students are satisfied with our program. I have talked to countless students and have had them tell me how much they have learned, how much they have enjoyed the classes and how much they have been able to connect with other students. This seems to surprise most of the students who are first-time online course takers. We also survey our students. They overwhelmingly say that they are satisfied with our
courses, their teachers and their experiences. They are also pretty unified in their recommendation of online learning for others and as a viable option for taking courses. Interviewee E

I think students are satisfied with Virtual VA and I think it is not only from the student feedback that we get that kind of communication wise through e-mail, but at the end of the year we get a lot of feedback from students in one on one conversations either with support or school counselors and those sorts of things. We are also committed to research and we provide an end of course survey for every student to take at the end of their course to be able and go back to measure their satisfaction, measure their activity in the course, measure their perception of the curriculum, measure their perception of the help desk where they help, was it timely those sorts of things. So I think we are committed to gathering that data to make sure that our students are being satisfied.

7. Are parents satisfied with Virtual VA? How do you know?

Interviewee A

That’s something that I think we need to do more of with Virtual VA and we have talked about bringing in a task force and various force that would include parents and that’s not yet established in the organization. So mostly what we hear from parents is through like e-mail and phone conversations. We have the privilege because we are at the state level and because we are funded by the general assembly that we get letters from the congress men where people like the program and so that comes our way. The governor spoke to the state board of education, his daughter is enrolled in the program and is a middle school student who took Chinese I last year which that pertains to. Online there is actually a link where you can see that Tim Kaine praises the program. So of course he is
a politician but as a parent he brags on the program very boldly. We get it more
anecdotally now from parents and we get it both ways like in the school division when
there is an issue that needs to be addressed or needs more communication from parents;
we deal with that as well from parents. We work hard to resolve any type of issues that
might come up and of curse appreciate when they say kind things as well. So it is really
anecdotally right now I believe.

Interviewee B

We don't do a parent survey, we haven't really figured out a good way to do that
since we deal with electronics and we don't collect parent e-mails. That is something that
we are working out how to do because I think that is an important piece of the research.
We don't really have a good way to do that yet. I think the parents that I have had contact
with have been very happy with the outcome. I think a lot of it is by word of mouth with
a parent of a child talks to one parent and it just goes down the line and people want their
kids to have that experience too. That's really the only thing I have but that is not really
research based. I have had several parents to offer to write letters of support and
testimonials and how great they think the program is and what a great experience their
child had with the program and I think that is the feedback we have from the parents.

Interviewee C

I believe that the parents are satisfied however I don't have any hard data for you.
That's simply from conversations I have had with parents. I get the feeling that they are
happy that the students have these opportunities and are pleased with the Virtual VA
program. I can only give you anecdotal data. I don't know if you are aware or not but
we ask each school to provide a mentor; an adult in the building who acts as a liaison
between our teacher and the school. In one of the schools the mentor also had a son who was also in the program and I think her son took maybe 5 or 6 courses throughout his high school career with Virtual VA and she just seems to praise us as a program and she loves it as a mentor and as a parent. I hear that from other parents as well and I think that parents overall appreciate the program and feel that their students are getting a quality education. I’m not aware that a parent survey is in the works yet but one of the difficulties we have with the parents right now is collecting the information from the schools regarding parent contact. That has been one of the things that has been difficult for us from the beginning. As schools register students we try to get parent contact information as well but it is spotty. Even to just contact parents to talk to them about how their child is doing in the program is a little difficult for us at times.

Interviewee D

I would have to say that most of them are. It seems that if their children are satisfied they are satisfied for the most part. However, I am answering based on anecdotal information. We do not survey the parents, but we probably should. It has been a challenge to get valid email addresses for all of our parents, but they let us know if something isn’t working for their student. I can’t tell you how many conversations I have had with parents who are so excited for their child to be able to take one of our courses because it isn’t offered in their high school. I also have talked to lots of parents explaining the online learning process we have. It seems that they are more hesitant to embrace this learning venue than their children.
Interviewee E

That is more of a kind of one to one conversation. I think we are lucky because we are so open have such open lines of communication with all of the stakeholders. On a regular basis we meet with parents or have conversations with parents. All of the resources that we have that are available to the divisions such as the help desk, instructional supervisor, and the school counselor. They are also open to the parents so we get that kind of one to one regular feedback.

6. Is the staff satisfied with Virtual VA? How do you know?

Interviewee A

We don’t have right now for an end of year survey for our staff. Our teachers come together for an intensive week of teacher training face to face. At the end of that they of course produce surveys and share information. We are established just like a school division, typically we have department chairs and we have what we call team leaders. They communicate through their team leaders and through us and there are opportunities all throughout the year where we sit and talk and share things that we hear in concerns or that are going well. We have set up for our teachers a course that we call “Mission Control.” We have discussions that go on everyday all the time with our teachers on issues such as health issues or helping resolve things, professional development, resources, a teacher lounge section. There is such a high level of interactivity in that mission control. I think that it is truly not forced on the teachers to actively engage on the discussion board. They are asked to read the discussion boards and put their input about things. I look at the turnover rates of our staff; this year and all of our full time teachers returned except for one which we knew two years ago that at this
point in her career she was going to change and that was a planned departure. I think that probably is a contributing factor to know whether or not they are satisfied and they have the option every year to return or not.

Interviewee B

Really from conversations that we have had. One thing that I really like about this program is how a lot of policies and procedures are put in place. When an issue comes up the admin team discusses it and puts together a proposal for a policy and then sends it out to our faculty. They are very much involved in decisions that are made. I think it is a very team oriented atmosphere and I think that’s unique because I feel that you don’t always get that when you are in a school building. Normally they say here is the deal and this is what you are going to do. I think there is a real effort in involving the teachers in that process because when you have happy teachers you have happy kids. I think we recognize that and we have the teachers that have been there from the beginning for the long wild ride and are still with us. So I think you are starting to see each year we have fewer and fewer spaces to fill. Notice the first year I think we did like a mutual house cleaning to the point of this is going to work this is not going to work and it was on both sides you know it wasn’t just on our side but I feel like we spent weeks interviewing. Literally now it is down to the point where we can pretty much cover everything and there are very few spaces that need to be filled. I think that is an indication of satisfaction that we just don’t have a lot of teacher turnover. I can imagine if they were not satisfied that they would have other options. They could always go back to teaching in a classroom but they don’t; they stay here. I think there is a great deal of professional development involved and getting to do the work that they love in a totally different environment that
is totally cutting edge. They get to be on the forefront of that and I think that is a really
good experience for them. Teaching online course feels just like your first year of
teaching; it doesn’t matter if you have taught for 15 years or not because it is a totally
different experience.
Interviewee C

I don’t have hard data on that either. I can simply give you what I think is true and
what I see. I think they are happy, I think they are just like any other teaching staff.
Certainly there are things that they would like to see change, there are things that they
would like to see done differently, but that happens with any teaching staff. What I can
tell you is there are a couple of things that I can make my judgment based on. One of
them is we have a professional development support forum within a desire to learn which
is a learning matching system called Mission Control. Basically it is a forum set up for
teachers to walk in ask questions, talk to one another about instructional issues and then
we have set up a teacher’s lounge where they can basically go in and show baby pictures
and stuff like that. I can tell you from going into all of the discussion areas in mission
control that we seem to have a great camaraderie among our staff. In fact, I have worked
in 5 buildings face to face and I can tell you that I think our staff has a better relationship
with one another which is rather unique since they are virtual and are scattered across the
state. I think that we have a higher action of peer interaction and support for one another
than I have seen in any of the buildings that I have ever worked in. There is something
unique about being out there on your own and being able to get together with other
people who are out there on their own and working together with one another. There is a
lot of support in mission control. A teacher will go in and say I don’t know how to do this
particular thing, or has anyone else ever tried this before and someone else will pipe in and say this is what I’ve done this is what I’ve done, this is a great idea to try. There is a lot of collaboration that goes on in there and I think that is one way of judging the health of your staff and that is how well do they help each other, and how well do they collaborate with each other. Plus as you watch the tones of the communications there it is a very positive place. Another thing I judge by is teacher week which is coming up next week. We bring in all of our teachers for one week of training in Richmond for face to face training. The interaction and the camaraderie and collaboration that goes on there is great. There is just a really good feel about that week and about how the participation in the week. People are happy to see each other again and it’s a great time and they have fun and we get a lot accomplished. I would say judging from what I see from the staff that I would say they are happy.

Interviewee D

Absolutely! We have a great staff. Our teachers are so willing to learn new things and to collaborate with one another. I am currently getting ready for our summer professional development academy for all of our teachers and can truly say that I am so looking forward to it. I know it may sound crazy because it is a lot of work, but when you have such committed teachers who are really interested in high quality instruction it really makes a difference. Another way that I would say I know our teachers are satisfied is that we have a very low turnover rate. If they weren’t satisfied, they wouldn’t continue to teach for us. In some ways I think they are closer than most faculties in a building – even though they don’t see each other very often. We have a teacher collaboration area where our teachers share tips, post questions and engage in dialogue. It really seems to be
one of the key components of our program that keeps our staff connected with one another and interested in continuing to improve our courses.

Interviewee E

I would say that the staff is incredibly satisfied. We have an incredibly strong practice. With the professional development opportunities we have available for our instructors I think they rival anything you are going to see out there in the online world for online instructors. We also have kind of a central meeting place for our instructors online that lets them communicate with one another on a regular basis. It is almost like a teacher’s lounge; there are definitely teacher aspects to it but there are also personal aspects. What we try to do is create a structure that is similar to what you would find in a face to face setting, but then tweak it to meet the needs in the online world. Plus we get that feedback from them that things are working. I think the other thing that is really interesting is that we see because we have such a low turnover, is that we see definite instructional leaders emerge in our faculty. Faculty coming to us with new ideas and new innovations to improve the online world. I think a low turnover is a definite sign of faculty satisfaction.

9. What changes have occurred since the inception of Virtual VA?

Interviewee A

Of course you know that Virtual VA started as the Center for Virginia Satellite Education Network back in 1983 funded by the General Assembly. As equipment became aging and decrepit; instead of the state investing money to invest in those satellites that’s when the move became to move the program 100% online. In 2003 Virtual VA Advanced Placement was born and really out of that combination really
became Virtual VA; where it became 100% online. Distance learning in some sort of format has been around in the commonwealth for many years. So we see those changes but since Virtual VA was truly adopted into the form that it is now of 100%; we have come structurally from the first year having satellite support centers that were isolated by topics. There was an English Humanity Support Center based over in the Hampton Roads area. There was a social studies support center based over in the western part of the state. The northern part had a support center for math and science teachers. And the world language teachers were in the Richmond area as far as their support center. Each center had a support center supervisor that ran their areas individually and independently, but all under the direction of the Director of Virtual VA: Cathy Cheeley, then all the other components from the support personnel. I started as a support supervisor running all the technologies. After that year a complete structure came to the program where now it more mimics what you would find in a school division where you will find that we have an instructional supervisor that oversees all instruction. They also have an assistant instructional supervisor so they oversee all the areas and disciplines of our curriculum and the instructors. We have support supervisors who oversee all the technical support side of everything working. After about 4 months into the first year that I was here we quickly realized that we really need to have a director of curriculum and so the rest of that year I served two roles: to supervise the curriculum and the support supervisor as well. Then we hired another person on for that job. Administratively we have seen huge change in the structure of the program. Then we have started things like team leaders, we didn’t have team leaders the first year and that has come on board. We have seen that whole organizational restructure. We have done things in health too that have changed
how we work and how we do business. Things like implementing an online student information system simply for registration and grade reporting that wasn't there the first year; we did everything by hand. And you see changes like that that are huge to making things work and to be more effective. So we have seen a lot of changes. We use that term sometimes in the beginning that we are “flying the plane and building it at the same time while in the air.” And that's how it felt really in the beginning in tackling and really trying to make it work. So now we are alas and last year at the end of the survey a student wrote, “Virtual VA is a well oiled learning machine,” you know we laugh at that, but at the changes we have made in the short amount of time and there has been a lot.

Interviewee B

We have extended our administrative team; we split up our curriculum and our technology. We have two separate people that deal with that. The way that we implement and develop courses has changed. That first year we did quite a bit of purchasing of courses and now M- runs an entire department and there is a whole plan in place of reviewers and developers that are separate from our instructors. That has been a huge change in the organization and I think has really impacted the level of instruction and the quality of instruction in the past 4 years. The way people register; that is a much smoother process in that we made an online registration program. It is our third year of that and that company has been a great vendor to work with and we basically say we need this and they make it happen. I think the more user-friendly you can make an online program for the people on the ground they are going to enjoy using it; which I think has been a good change. I think the ability to keep student ratios steady is good, and helps the teacher know what they are getting into. It is not like it is a big surprise as to how many
kids they will have because they are aware ahead of time. We are very open to change which I think is good because we are not set in stone and not able to change at all.

Interviewee C

Well of course VSEN was satellite delivery and you had a couple of school divisions that had contracts with the state to run the broadcast studio, hire the teachers, and then deliver the instruction. As we moved away from VSEN and to online delivery basically I think there might have been two contracting entities at that point when Virtual VA began we moved to online instruction and went to 4 support centers and the Hampton Roads Center was the Center for English and Humanities. There was a center in Wise County which was the Center for Social Studies and a center in Henrico County which was the Center for Languages. There was also a center in Prince William County which was the Center for Math and Science. Then after the first year what we found that was difficult to work with 4 groups that all had different hiring practices, payroll practices, personnel practices within themselves. It became very difficult to work with 4 different sets of rules and policies and procedures and run a consistent program. So a decision was made at the end of the first year to basically go to 2 entities than 4 and move from the support center model to a more centralized model. For example, I was the supervisor for English and Humanities the first year. My assistant who is my current assistant was the supervisor for Social Studies at Wise. Then we had a supervisor for math science and a supervisor for language. When we pulled it together we changed the model and made a centralized model and I then became the instruction supervisor for the whole program. S... became the assistant for the entire program then we hired all those teachers through Charlotte County Public Schools. We kept our support mechanism through WHRO. They
were the ones providing the server space, the technical support, the support for our help
desk and other support for our software and processes. So we kept that there and we had
that expertise. We find that the program is a whole lot easier to run now that we have one
set of expectations and one set of standards and one set of hiring practices, policies, and
procedures. From that point there has not been a lot of change. Probably the biggest
change/changes we have made is we have during that time we have started developing
more and more of our own courses. In the beginning we had courses that we had
purchased courses we had developed by someone else. We were using all of those and as
we brought in more assistant view to our courses we started developing our own courses
so we had our own model for courses. That’s one of the changes that has happened since
the first year. I think that is paying benefit and paying dividends for us. Another change
that I think we have had since then is that we have gotten a good handle on what we want
our teachers to be doing. The expectations of our teachers, what pays benefits for students
and I think that we are doing a better job. We have seen that over the second year and the
third year of meeting the needs of students.

Interviewee D

Well we started years ago as VSEN and have evolved from there. Since a lot of
information is online about VSEN, I will stick with what has happened since we became
the Virtual VA AP School. As we moved towards an online delivery model we bought
some online courses to get us started. While we knew we wouldn’t continue with this
model, it was a good way to get us up and running. We also configured our
administrative support into regional centers to try and provide a distributed leadership
model for the first year. We found that model to be difficult on many levels so we
restructured to a central leadership model. Based on the feedback we got from our staff and teachers, this seemed to be more efficient and effective. The centralized format also allowed us to focus on developing consistent policies and procedures for all teachers and courses. While we weren’t doing things drastically differently from each regional site, there were some differences and we were able to clean those up. Additionally we were able to focus on developing strong professional development standards and expectations to ensure that our teachers were not only highly qualified from a licensure standpoint, but also effective online teachers.

We are also able to spend more time now researching, developing and implementing our own courses. This way we can ensure high quality courses and involve curriculum specialists and technology specialists to make our courses interactive and engaging for student learners. We are also connected to many of the national and international online learning organizations to stay as current as possible on online learning issues and advancements. We have spent a large amount of time and effort working with SREB and iNACOL to establish and implement standards for courses, teachers and programmatic factors. We are committed to excellence and I hope to see that continue in the years ahead. I am not sure exactly what the future holds for Virtual VA as we are constantly evolving and changing. Of particular note is the upcoming election and budget which plays heavily into the course that Virtual VA will take in the years ahead. Nonetheless, I have been excited to be a part of this cutting edge opportunity for VA students and for the professionals with which I have worked.
Interviewee E

I have been with the program for about 2 ½ years I can definitely give you some historical perspective prior to me coming on board with the program and I can talk a little bit about how it has changed since I have come on board. Originally the funds for this program were set aside by the General Assembly. As the Virginia Satellite Education Network (VSEN), identical to our mission today was to serve the populations of Virginia that wouldn’t normally have access to AP, elective, and language courses. So what they did is they did that all through satellite and through televisions at the schools, so when my supervisor came on 3 years ago she asked the permission of bringing this online. To transition from it being a satellite delivered program to an online program. I think the opportunities that have afforded the students, faculty, and administrators have been miraculous. In addition, to satellite being a direct one way instruction this has made it really more of a community. We are a fully comprehensive program in terms of what we are able to offer, the schools we are able to work with, the resources that schools need, and those sorts of things. The online environment offers opportunities of communication for instruction that the satellite program did not. When I was coming on board with the program 2 ½ years ago after it had been fully online for a year, it was previously on a center format where we were working with a few different school divisions, and they served as support centers for the program and each center was comprised as a subject area or department. Because I think that that itself led it to a less centralized focus we moved from being kind of the center we moved to being a more of a centralized administrative team. It has also allowed us to use resources within our faculty to kind of set up those departments and to be instructional leaders in those departments.
10. How is the quality of instruction and courses ensured?

Interviewee A

Well I don't oversee the instruction; I know what Virtual VA does with their documents. I am probably more qualified to actually speak to the content portion so I will do that. First of all we hire, when we try to go about creating a course, we hire only subject matter experts that are highly qualified. I interview them and I bring on a team of people, typically at least two to three are subject matter experts. They have to be experts in their field, they have to have taught course, if it is an AP level course they have to be trained in that level. So that's required so we hire what we call a team leader for this group. They have to have online experience in addition to all of the other qualifications of a subject matter expert. We like our subject matter experts to have online experience and they don't always so we go to great lengths to train them on everything from how does it work to course management system and try to bring the whole team together on board with the training and what we are looking for. Then additionally I hire an instructional designer to the team so the team leader and the subject matter experts work together to create the content. The instructional designer makes it come to life and builds it in a very interactive way; very engaging to all types of styles to meet the diverse learning needs of our students and the different types of learning opportunities that we like to provide and we passionately feel are important because they are not the tech base courses. Then they go through and they write this course. Then what happens is that team, we use those documents from the work that they did and the documents they produce for creating quality online courses and the checklist for creating online courses. Then I may have adopted that and they now become international standards from I made calls which the
documents actually called national standards quality for online courses. It is broken down into evaluating content, the instructional design, the student assessments, the technology, the course evaluation management, and the 21st century skills. That team uses a document from them that we modified into a format online that they could go to a course when they are finished and evaluate with the national standards and to make sure how it measures up. Then before we go live with it and there is a whole list of things required to make a course final and then I bring it outside and hire outside reviewers; people who have nothing to do with the course with the writing and are not emotionally attached to all the hours of creating that and they review the course. They provide suggested changes they give me a list of required changes that are not subjective and they also give me that same document from the online format and they evaluate it and wait and see every single section and sub-section and they provide commentary on why they provide a specific score for a course. Then we take that back and we take it back for review. From people who did not invest all that time to instructors we pull people together. Maybe the team leader to go back and look at that document then from the outside course reviewers and to look and say that we have measured up, have we missed something here, do we need to go back. So that's an involving process continually. At the same time if it is an AP course we are continually reevaluating and realigning the course to make sure it meets and yet exceeds the College Board standards. Same thing with the Virginia Standards of Learning. If it's a course that you know is an SOL based course we are constantly making sure it meets those needs and exceeds it. As we are beginning to grow in that area then we will be using that data of students performance like we do with the AP exam to measure; if there is something we need to change we use that data. This year for the first
time to and this is the first time we have done this so I am anxious to see how this grows and how we use this, but all of our students in the World Language department took national exams, we have always done the National Latin Exam, but this year we did the Spanish, Chinese, and the French. So with doing that just looking at that and just seeing how our students did at the national level and that data we are growing into that area and that’s kind of exciting to. That’s really a lot but we work hard to take that feedback from all the sources to evaluate those courses and we hold them up to those national standards now of quality online courses.

Interviewee B

There is a lot of oversight with this program because everything that the teachers do is recorded and seen. The instructional supervisors are able to go in and monitor how quickly someone responded to a child, how quickly they graded an assignment and got feedback; they can see what type of feedback the teachers are giving back to the students. They do multiple evaluations throughout the year with the teachers and they used the SREB guidelines for quality instruction not only in their evaluation procedures but in the quality instruction that was adopted not only by SREB but in iNACOL is used in the curriculum development process. In addition to that they not only cross reference state standards but national standards in terms of curriculum and I think that goes a long way in speaking to the quality.

Interviewee C

We go back to those standards again of the SREB and the iNACOL use for the quality of online instruction. We designed an observation document and an evaluation document based on those standards and based on some of the expectations that we have
that are in line with the standards. My assistant and I observe teachers. We have three formal observations during the year and then an evaluation meeting with the teachers at the end of the year. We do informal observations if you want to call them walk-throughs. We do those on a weekly basis in our courses and give the teachers feedback on what we see in the courses. We try to give the teachers positive feedback for things that we see are going well. If we see something that we think needs to be tweaked we will notify a teacher and ask them to make modifications on what they are doing. So we try to give them feedback on a regular basis. We use those standards as the basis for giving them feedback in the form of observation and evaluation process.

Interviewee D

We are committed to the highest standards for our courses and our teachers. I would say that is a real strength of our program. From the beginning we have worked with SREB to implement their guidelines and expectations for courses/curriculum and for teaching. We also have followed the research of iNACOL who has also supported the standards methodology of SREB. We revised the standards a little bit to align with VA Standards of Learning. They are very comprehensive and we adhere to them at all times to ensure the highest quality. We also keep our enrollment numbers down in our courses so that our teachers can effectively communicate on a regular basis with students. I know that in some programs this is not true. We also develop our own curriculum now. In the beginning we bought some courses, but have found that we have better quality when we develop them ourselves. Our teachers are also highly qualified. We make sure that we screen our teachers before hiring them and continue to support and train them as they work for us. Good classroom teachers do not always make good online teachers so we
work closely with our staff to make sure they are meeting our expectations – but they are
great about supporting one another and setting very high standards for themselves. I
would say that most of our teachers are very passionate about the power of online
learning and developing a positive virtual learning environment.

Interviewee E

Both the quality of our instruction and courses is observed and evaluated. We take
feedback from the instructors, from the students like a said before that end of course
survey the students are asked to evaluate the instructors’ participation in things like
grading and communication and also the quality of the courses they took. We also use
national standards set forth by INACAL to evaluate instruction and to evaluate
curriculum as well as using documentation from the Southern Regional Education Board
(SREB).

11. Who else would you suggest I speak with in conducting my research on Virtual VA?
Are there any publications/theorists you would recommend that I include in my work?

Interviewee A

Erin Berry is our research counselor and supervisor. She manages and handles all
of the data provided by reports. She could probably send you anything. She also handles
our AP scores and those reports have just come from local school divisions. So it’s a little
bit different with the online computer world with the College Board because we have to
go through and verify whether it is really a student. I am sure that all the supervisors
would be good to talk to. Also I like to talk to the real people like the teachers, students,
and mentors. Susan Patrick is great to speak with about online learning; John Watson and
his group with Keeping Pace documents. SREB, they help us so much with our online
courses and I think they are an excellent resource. Bill Thomas has retired but if you ever get the chance to contact him I think he is a great resource. Mike Garn is new from SREB; he has come from a post-secondary world. Cathy Cavanaugh in Florida conducts a lot of research with online. Chief state school officers I believe have some great reports that I have used a lot and have done some great presentations.

Interviewee B:

Cathy Cavanaugh down in Florida who has actually done a lot of work and is about to start a journal related to research and online learning. Susan Patrick, John Watson, people at the Florida Virtual School who has been in business since 1997. Schools all over use Virtual VA. One hundred seventeen different school divisions and 238 middle and high schools that use the program. Ten to 15 different states. China-2 school...Italy uses it.

Interviewee C

I think anyone who has involvement with Virtual VA in the state would be good to talk to. Reggie Fox uses our program in York County quite a bit so he might be someone good to talk to—anyone who deals with Virtual VA in the state. Dr. Cathy Cavanaugh has done research on online instruction. Dr. Robert Blomeyer has done a lot of research of the effectiveness of online instruction so he would be another good one. The North Central Regional Laboratory had a number of summaries of research that has been done on a number of online instruction programs and that would be another good resource. John Watson of Evergreen Consulting who does the keeping pace report on a yearly basis on k-12 online instruction is another good resource. NCREL websites and I think you can find current research and a lot of information.
Interviewee D

I think you have already researched many of these folks but I would suggest Cathy Cavanaugh, Susan Patrick with iNACOL, Clay Christiansen. SREB and iNACOL have lots of great research materials about online courses and schools.

Interviewee E

iNACOL and SREB documentation are excellent they set forth kind of national and regional standards for online learning. I think those are definitely important documents and organizations to work with. In terms of people I always go to the source; talk to some mentors, counselors, students that have been involved with the program. They are going to be able to give you a different perception on things like the administration side and the other administrators in the program and Cathy Cheeley as well.