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by

Kellie J. Yoh

May, 2011

EXPLORING ONLINE LEARNING OPPORTUNITIES FOR AT-RISK  
STUDENTS TO COMPLETE A HIGH SCHOOL DIPLOMA

A Doctoral Thesis Presented to the  
Faculty of the College of Education  
University of Houston

In Partial Fulfillment  
of the Requirements for the Degree

Doctor of Education  
In Professional Leadership

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May, 2011

EXPLORING ONLINE LEARNING OPPORTUNITIES FOR AT-RISK  
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## **ABSTRACT**

According to the Texas PEIMs Student Data Report (2009), 47% of the student population of Texas is at risk of dropping out of school. The focus of this study is to determine the current state of online learning opportunities available to at-risk students, in order for them to complete their high school diploma. A comparison of two online programs was made, concentrating on course completion rates. Allowing students to recover credits via online learning may provide students with the needed flexibility to deter the option of dropping out of school.

A non-experimental, mixed methods research design was utilized, with a study population of students who completed online credit recovery programs within an urban school district, as well as students completing courses through a state virtual network. Data collected were analyzed for completion rates in online courses during the 2009-10 school year, using descriptive statistics (SPSS methods). Completion and withdrawal surveys given to online students were also correlated to better understand online learning practices that may be effective for at-risk students, as well as the factors that increase or decrease the chance of student success in online learning. Students had a high rate of completion in online credit recovery courses, while fewer students actually completed online courses through the state virtual network. Results indicated that online learning has the potential to decrease the number of dropouts in the state, allowing students to successfully complete a high school diploma.

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## **CHAPTER ONE**

### **INTRODUCTION**

Online learning is revolutionizing education for students all over the world. Global education online is providing opportunities that never before existed for diverse populations of students, helping them to achieve more than ever before. Online learning programs and virtual schools offer formal educational instruction through learning resources that comprise a course of study via the internet (Cavanaugh & Blomeyer, 2007). Through the internet, there are countless ways to afford universal access to a K-12 education, whether a student seeks advanced learning, credit recovery, or remediation. Virtual schooling may be one of the most effective ways to reach at-risk students. K-12 online learning for every student has the potential to make certain that no child is ever left behind.

#### **Purpose of the Study**

The purpose of this study is to determine the current state of online learning opportunities via credit recovery, available to at-risk students, in order for them to complete their high school diploma. This study will investigate what data exists regarding potential high school dropouts utilizing credit recovery through online learning to complete their high school diploma in Texas during 2009-10 school year. Credit recovery data will be obtained for Big City Independent School District and State Virtual School Network (StateVSN). A comparison of credit recovery statistics will also be

made between the two largest virtual school providers, K12.com and the Florida Virtual School (FLVS) system.

According to 2009-2010 Public Education Information Management System (PEIMS) data, of the 4,847,844 students enrolled in Texas, there are 2,283,490 at-risk students, in danger of not completing a high school diploma (PEIMs Student Report Data, 2010). At-risk students are the target population of this study due to the fact that the mission of the Texas Education Agency is to provide leadership, guidance and resources to help schools meet the educational needs of all students. With the above data known, 47% of the student population of Texas is in jeopardy of falling into the category of high school dropout. In 2010, Texas allocated approximately \$259 million to initiate a Dropout Recovery Pilot Program (DRPP) to identify and recruit students who have already dropped out of Texas public schools with the intent to provide them with services that will enable them to earn a high school diploma (Texas Dropout Recovery Pilot Program, 2010). One key feature of this program is to provide maximum flexibility to meet student needs, utilizing cutting edge strategies to ensure learning environments that are personalized and challenging for each student.

For this research study, many factors will be examined that influence online learning for at-risk students. An inquiry will be made into which demographic populations are being served via online learning, as well as how schools are addressing the issue of credit recovery. A comparison of various online credit recovery programs will be made in order to accurately assess completion rates for students seeking a high school education. Ultimately, online credit recovery may assist educators in accessing resources to help at-risk students complete their diploma.

## **Research Questions**

The following research questions will be addressed in this study:

1. Is online learning effective as a credit recovery tool for at-risk students, as indicated by successful completion of online courses?
2. Are at-risk students more successful in certain online learning courses, or during certain grade levels?
3. What are the factors that increase or decrease the successful completion of credit recovery courses via online learning?

## **Importance of the Study**

The importance of this study is to potentially decrease the number of dropouts in the State of Texas using online learning as a credit recovery tool in order for students to complete a high school diploma. Online learning may improve school efficiency to assist at-risk students in need of a more personalized learning program. This investigation will also increase the equity of access to a challenging education that may ensure a student graduates high school. Credit recovery via online learning may have the potential to make an overall improvement to our educational system in Texas.

## **Definition of Terms**

For the purposes of this study, the following are defined:

*Accelerated student and/or course*

A strategy of progressing through education at rates faster, or ages younger, than the norm (National Association for Gifted Children, 2010).

*Asynchronous communication*

Non-simultaneous exchange of messages that does not require the actual presence of both sender and intended recipient such as email (Bruce, 1999).

*At-risk student*

A student 'at risk' of dropping out of school due to any of the following reasons: failing two or more core subjects for a grading period, failure of a state assessment test, alternative education placement, being expelled, lack of promotion to the next grade level, pregnancy, on probation or parole, homelessness, referred to or in the care of Child Protective Services (CPS), previously listed as a dropout, or if placed in a residential facility such as a detention, substance abuse, emergency shelter, or foster care (Public Education Information Management System, 2010).

*Credit recovery*

Regaining credit for a course that was previously taken unsuccessfully (Yoh, 2010).

*Completion of course*

Refers to the passing score a student obtained, equivalent to an average score of 70 for a course take (Yoh, 2010).

*Distance education or learning*

Any array of courses that are outside of a traditional classroom, such as correspondence courses, online, video, teleconferences, or via Internet (Bruce, 1999).

*Dropout*

A student who is enrolled in public school in Grades 7-12, does not return to public school the following fall, is not expelled, and does not graduate, receive a GED, continue school outside the public school system, begin college, or die (Public Education Information Management System, 2008).

*Hybrid or blended course*

Any course of study that includes face-to-face instruction and an online learning component (Yoh, 2010).

*Online learning/Virtual learning/E-learning*

Interchangeable terms that refer to Internet or computer-based instruction (Watson, 2009).

*Remedial student and/or course*

Students in need of remediation or taking a course to help them build their skills in a particular subject (Yoh, 2010).

*Synchronous communication*

Simultaneous exchange of messages that requires the actual presence of both sender and intended recipient, such as online discussions, also known as an electronic chat (Bruce, 1999).

### *Virtual school/Cyberschool*

A school program that is entirely computer based or solely on the Internet (Yoh, 2010).

### **Limitations**

The purpose of the study is to collect data in regards to online credit recovery for at-risk students completing a high school diploma. Limitations within the study include the limited number of data sets available for 2009-10 school year, as well as using an urban school district as the convenience sample. While the State Education Agency has just begun to track the StateVSN online credit recovery data due to funding stipulations, other districts do not report this method of credit recovery as a means of dropout prevention. Data sources and instrumentation may include gaps, and may not be fully comparable to every district in Texas. While advantages and disadvantages of online learning for at-risk students will be discussed, data may be limited for at-risk students exclusively.

### **Summary**

With the high number of at-risk students in the State of Texas, various methods need to be employed in order to help them recover credits to stay in school and complete their high school diploma. This study will observe the current state of online learning, as well as the factors associated with credit recovery via the Internet. Factors that increase or decrease the chance of success, as well as the effectiveness of online learning for at-risk students will be investigated. Essential to this study is determining if at-risk students



are successful at recovering credits via online learning to complete their high school diploma. This research will also analyze and interpret data trends in online learning opportunities for at-risk students to earn a high school diploma.

## **CHAPTER TWO**

### **REVIEW OF THE LITERATURE**

#### **Introduction**

Virtual schools help to provide access to an education, reducing inequalities inherent in many traditional schools. No longer do geographics, income level or background need to play a part in education. Differences in learning styles, ability level, and personalities can make the traditional school environment difficult for many students who eventually become unsuccessful. All too often educators strive to fit the child to the current educational system, when online learning may be better suited to fit the educational system to the child.

Arora (2009) states that “the current online learning landscape is evolving in ways that engage more students in more ways, promote active learning, and improve student outcomes. Because the opportunities are almost endless, today’s K-12 academic institutions are limited only by their collective imaginations. It’s what we call EDU 2.0.” Students of the 21<sup>st</sup> century need different educational tools and approaches to learning than students of the past. Technology is an integral part of the lives of students today, allowing for access to resources abound. Personalized interaction and flexibility gained through online learning appeals to students with multiple needs. Expanding educational options through online learning provides equal learning opportunities for all learners.

Research has consistently shown that effective schools share certain essential characteristics. According to Edmonds (1982), “to be effective a school need not bring all students to identical levels of mastery, but must bring an equal percentage of its highest and lowest social classes to a minimum mastery.” Helping at-risk students to

achieve their high school diploma through online learning, as well as accelerated students to get ahead using online courses addresses this essential characteristic.

### **What is Online learning?**

Online learning is any type of education that refers to Internet or computer-based instruction (Watson, Gemin, Ryan, & Wick, 2009). There are different types of virtual schools: state-sanctioned, state level, college/university based, consortium and regionally based, local education agency-based, virtual charter schools, and for-profit providers. Credit recovery is often referred to as a type of online learning, in that students can utilize Internet programs to regain credits in courses in which they have previously been unsuccessful. Students today, many of whom are at-risk of not graduating, can access course materials online and have the opportunity to regain course credits in order to complete their credits for a high school diploma.

### **History of online learning**

One of the first virtual schools was developed in 1995 in Alberta, Canada, in an attempt to provide students living in remote or rural areas “with more course choices and flexibility” (Government of British Columbia, 2006). In 1997, the United States established the Virtual High School (VHS) funded by a \$7.4 million federal grant, and the Florida Virtual School (FLVS) through a state legislative allocation of \$200,000 (Friend & Johnson, 2005; Pape, Adams, & Riberio, 2005). In 2006, Michigan was the first state in the US to require all students to take at least one online course as a graduation requirement (Michigan Department of Education, 2006). In 2008, Alabama added the same online requirement for secondary student graduation (International

Association for K-12 Online Learning, 2009). Virtual schools are eligible for students to transfer into under the United States legislation of *No Child Left Behind* (NCLB), if a traditional school does meet yearly annual yearly progress (AYP), provided it is a public elementary or secondary virtual school (United States Department of Education, 2002). Many virtual charter schools allow students educational choices if their current school does not meet AYP under NCLB.

*A Nation at-risk*, published by the Commission on Excellence in Education (1983), called for restructuring of our schools so that academic achievement would be widespread. Few would disagree that in a democracy, all should be afforded an equal education, although the road to accomplish that was unclear. Theories were awash in ideas about specially funded programs, general resource differences culturally, limits of schooling, and inability to “universalize schools” (Graham, 2005). Perhaps related to this shift, a new trend of consumerism appeared to be forming with youths; students were spending more time at after school jobs, and reluctant to spend their time studying. According to Graham (2005), Americans polled stated discipline as the biggest problem in schools in 1983, although teachers avowed lack of student interest, parental indifference, overcrowded classrooms, and limited financial support. “The drumbeat of today demands that all children achieve academically at a high level and the measure of that achievement is tests” (Graham, 2005, p.1.).

### **Statistics of Online Learning**

According to the North Central Regional Education Laboratory (NCREL), students perform equally as well, if not better, academically in online learning.

According to the Sloan Consortium, more than 1 million students took online classes in 2007-8, while only 32 states run virtual schools (United States Department of Education, 2005). The kindergarten through twelfth grade, edu-industry venue is a \$300 million dollar market estimated to grow at an annual pace of 30% annually (International Association for K-12 Online Learning, 2009) and 72% of school districts with distance education programs plan to expand offerings in the coming year. (United States Department of Education, 2005). Research suggests that by 2014, 10% of all courses will be computer based, and by 2019 about 50% of courses will be delivered via online (International Association for K-12 Online Learning, 2009). In school districts across the United States, 80% of school districts stated that “the course was otherwise unavailable” as the main reason for offering online courses (Picciano & Seaman, 2009).

The average freshmen high school graduation rate for United States is 74.9% (United States Department of Education, 2010). According to Steinberg and Kinchloe (2004), “students in urban areas are two times as likely to leave before graduation, and drop outs are 30-60% in some U.S. urban schools” (p.55). Only 51% of African American students and 52% of Hispanic students in the U.S. graduate. According to the Silent Epidemic report (Bridgeland, DiIulio, & Morison, 2006), 88% of students who dropped out of school had passing grades. The National Center for Educational Statistics study by Setzer & Lewis (2005) revealed that online learning was effective for growing school districts that lacked adequate structural resources, college level programs such as Advanced Placement, and qualified teachers. In addition, the study also found that online courses helped to reduce scheduling conflicts, assisted to meet the needs of high poverty

or rural students, and accommodated non-traditional students who struggled in a formal classroom setting.

The Florida Virtual School is reported to be the largest online school with 150,000 course enrollments in 2008-9, while the states of Ohio, Pennsylvania, and Arizona have the largest full-time population of online students (Watson et al., 2009). According to Watson et al. (2009), online courses in Texas are available to some, but not most students across the state through the Texas Virtual School Network. There are also many notable online organizations that will be further discussed in a later part of the study.

### **Reported Advantages of Online Learning**

Distance learning via the Internet makes courses available that would not otherwise be accessible at all campuses. Many rural or small schools often face the issues of not enough students enrolling in particular course, or geographic issues to offering certain classes. The wide range of online course choice also added tremendous opportunity to students with diverse needs. Students are able to access real-time instruction with online technology that provides for the varying learning styles (Aurora, 2009). Introverted students may be more comfortable interacting online in comparison to the traditional classroom setting. Schools need to realize the growing demand for online courses and begin to take advantage of all that distance learning and the Internet has to offer for various types of students.

There are numerous advantages to online learning. Some of the conveniences of online learning include being able to complete an education from the comfort of your own home, no transportation issues or parking hassles, elimination of certain expenses

such as childcare, and the ability to work on courses at the time of day that best suits the student. Online learning not only saves money on space and transportation, but also improves student performance (Dillion, 2009). Online courses also give students the opportunity to correspond with counterparts globally, for a new perspective on learning. Berge and Clark (2005) identified four major benefits of virtual schooling that includes expanding educational access for all students, improving student skills and outcomes, providing high-quality learning options, and giving students more educational choices.

Online learning allows for many learning styles, which levels the education playing field and subsequently increases student motivation and self-esteem (Arora, 2009). Berge (2001) gives the example of an online facilitator as a “co-explorer and co-discoverer, rather than just a spectator in his or her interaction with the students.”

Learning communities that enhance the learning experience can be established through peer group discussions, and even extracurricular activities via technology. Students who have not been traditionally served online are now utilizing online courses to recover credit or finish their education. Online courses allow opportunities for students who need more time to complete a course, home school access, or even adult learners to finish their high school diploma. Students who are reluctant are afforded ‘think time’ through asynchronous functions of online learning, and shy students are more likely to participate, becoming involved in conversations more than in a traditional classroom. Virtual schooling can facilitate students in the opportunity to also find employment, while finishing their high school diploma due to flexibility in scheduling. Online courses can provide space for students when schools have maxed out their capacity, or serve the growing population of home schooled students.

Fulton (2002) states that online learning is beneficial to students who are not otherwise able to attend their brick-and-mortar schools, such as students who were hospitalized or homebound, students who had been removed from schools because of suspension, assignment to alternative programs, or incarceration, or students who traveled due to their participation in athletic events or parental status (i.e. children of politicians or diplomats who split time between a number of locations).

Fulton (2002) also suggests that an online education may be a viable option for students who are not successful in traditional classrooms due to behavioral issues. These sorts of problems may distract from the education of other students in a traditional classroom.

Keeler (2003) states benefits of online schools as “decreasing the amount of time spent on discipline issues, flexibility in scheduling (both students and teachers), and time saved in administrative tasks associated with registration, attendance, and grading.” Teachers are able to assist students and target areas of need without singling out anyone or embarrassing them in an online setting. In the future, it may be possible to have online customization for every student to have an individualized education plan (IEP), such as required now in traditional schools for students with disabilities.

According to the Florida TaxWatch Center for Performance and Accountability (2010), students of the FLVS earned better scores on state exams, higher overall grades, and even outperformed students of traditional classrooms on AP exams. Online courses can be individualized, and often students and parents are greeted with a phone call from the instructor (FLVS). Online schools such as FLVS allow students to customize their course interfaces through background colors and even create avatars, which is an online



representation of themselves in the virtual world (Davis, 2009). With online learning, students are encouraged to personalize their learning experience.

### **Reported Disadvantages of Online Learning**

There are naysayers of online learning, both with and without merit. According to Roblyer (2004), there are “claims and counter claims that swirl around issues of funding, credit, certification, and whether or not the whole idea of learning without a teacher and student being in the same room is socially desirable or morally acceptable.” Online learners do face a reduced external motivation to stay on task, making it easy to fall behind, possibly leading to never completing a course. Weekly study schedules, virtual office hours, as well as chat group formation and course agreements provided to the learner may help with accountability and completion (Shank, 2007). Just as there are good and bad courses or classroom teachers, there will likely be the same trend in online learning.

Some non-supporters argue that online course preference may present the problem of jeopardizing face-to-face course offerings within institutions. Further, how would more online course offerings effect faculty compensation, recruitment, and budgets? Berge and Clark (2005) describe some of the challenges faced by virtual schools include the substantial start up cost, digital divide, and accreditation issues. Rose and Gallup (2008) found that 41% of the public approved of high school students taking courses online, but only 27% thought it appropriate to take the majority of courses at home, online. The authors also concluded based on previous studies, that while opposition to online courses may be softening, resistance against student taking all

courses online was growing. There are concerns that virtual schools may subtract funds from public schools, or replace teachers all together in traditional classrooms (Clark & Berge, 2005). The American public is ultimately skeptical of the quality of virtual schools.

There are also factors that can make online courses difficult in comparison with traditional face-to-face courses. Online texts can be difficult to read since many prefer paper to a computer screen and time management is critical. There are students who do not relate well to others or don't follow netiquette, as well as the group that allows one team member to do the majority of work for others (Engvig, 2006). Intensive work loads that include copious reading and time commitments to prove course participation can mislead students into thinking online courses will be easier than a traditional setting. Online facilitators also can give unclear guidelines or instructions, lack empathy, and leave students feeling unsupported without feedback. Technology can cut down on the amount of human interaction, especially through body language. The missing body language due to lack of face-to-face contact can effect a learner's online experience. Frustration with technology that doesn't perform, or is non-user friendly can make students wary of taking online courses. As a teacher, being able to look at a student's face may give critical indicators as to the level of understanding.

In addition, there are notable differences between adult and child learning. Clark, Lewis, Oyer and Schreiber (2002) found that the students most successful in virtual schools include highly motivated, self-disciplined, and independent learners with good abilities in reading, writing and technology. These characteristics are common among adult learners, where most of the research in online learning has been focused. Vygotsky

(1962) showed that learning for children involved social processes based on a zone of proximal development, which essentially means that much of what a child learns comes from higher level interactions with others around them. Adults have developed certain skills that children are in the process of acquiring. Younger students also do not have the autonomy that adult learners have developed, thus needing more structure that distance education settings such as online courses, may not provide for younger students (Moore, 1973). With appropriate scaffolding from online teachers, students may be able to perform tasks that they are incapable of completing on their own. Support and guidance not only provides assistance, but also instills the skills necessary for independent problem solving in the future.

### ***Integrity***

Cheating is an issue in the classroom and online alike. However, in an online setting there can be a greater chance of unauthorized collaboration, use of unapproved sources, or even the chance someone other than the student is taking a test or completing an assignment (Eplion & Keefe, 2007). The use of randomized tests, quizzes, and open book/take home exams can help with the concerns about online cheating (Palloff & Pratt, 2007). One of the main issues for an online course is whether or not the person taking the exam is the actual student enrolled in the course. While having someone take an online assessment for another is possible, completing an entire course for another is unlikely. Asking students to submit sections of work can decrease the chances for plagiarism, as well as help them to stay on track for the final product. A facilitator will also be more familiar with a student's work if they have seen more segments submitted in parts, which can also help them to identify sudden changes that may indicate plagiarism.

Multiple assignments can make it more difficult for students to recruit others to assist them, and requiring a face-to-face, cumulative final that will hold a significant weight on the final grade can also thwart cheating (Eplion & Keefe, 2007).

The use of performance based or authentic assessments also reduces the chances for academic dishonesty. The desperation to meet deadlines often causes some students to resort to unethical decisions within academics. Varvel (2005) states that papers that have been copied or even purchased, rarely have quotes since the citations often prove difficult or can be traced to search engines that monitor plagiarism. Outdated material or slightly off topic, is also a red flag indicator of a possible old paper someone has retrieved offline. Students in any course that requires research documentation should be encouraged to be proactive about their citation knowledge by checking plagiarism software detection tools such as Turnitin.com, Plagiarism.com, or EVE2.

Courseware packages can now also log IP addresses that are traceable to locations at which an exam was taken, along with the start and end time of the exam. Computer terminals in proximity can be detected using IP addresses. Eplion and Keefe (2007) specify a narrow window in which exams are available to take, limit time per question to 45 seconds, scramble questions for each student, and exam questions are randomly selected from a large database of questions. Having practical application questions also gives an added feature to test security that requires students to know more than just basic knowledge for an exam.

Unfortunately, some believe that cheating has become socially acceptable, and plagiarism is not a factor only of online, but face-to-face classes as well. There is also the concern about what is and is not considered cheating. Since the word “cheating” has

such strong connotations and can be difficult to prove, Eplion and Keefe (2007) use the phrase, “the exam protocol has been violated, and exam results will not be accepted.”

Cheating regrettably will remain a factor in any education setting.

### **Best Practices of Online Learning**

There are significant differences from traditional pedagogy that educators must be aware of when trying to help students to be successful in online learning. A learner agreement helps students to understand the responsibility, and asks for a front end commitment that provides clarity before ever beginning a course (Shank, 2007).

Orientation sessions can give the new online learner a good picture of course requirements. Educational Success Prediction Instruments can also be used to determine the aptitude of students embarking in online courses (Ferdig, DiPietro, & Papanastasiou, 2005; Roblyer & Marshall, 2002). Using and expanding on the development of ESPRIs will allow educators to keep identifying “successful learner attributes” (Rice, 2006).

Students need up front and straight forward instructions when embarking on an online course. Many online providers require parent contact by the online teacher, at the beginning of the course, monthly, and when a course goes inactive, or something is out of the ordinary for coursework. It is important to provide good communication and clear guidelines to help students feel supported in their online experience. Grading procedures and participation requirements should be stated up front so students understand online course expectations. Course design needs to be navigable, and contingencies for technology failures should be anticipated. Instructors of online courses should be assessable online and via telephone when nonparticipation is detected. Facilitating a

sense of community online will also help the student's buy in to online learning. Varying assignments for students to include tasks other than just utilizing online activities, assists in changing the monotony of working on the computer. FLVS strives to incorporate as many "away from the computer" activities as possible, with a variety of different ways a student can show mastery of concepts (Roblyer, 2006).

### **Comparison of Traditional Classroom and Online Learning**

According to research and evaluation studies on effectiveness of online K-12 learning, students appear to be equal or better than the traditional classroom. Students show an equivalent or better performance in well designed online learning courses when compared with high quality classroom courses (Cavanaugh, 2009). Most full length online courses facilitate the three higher levels of Bloom's Taxonomy (1956), of analysis, synthesis, and evaluation, whereas shorter, training modules lend themselves to the lower levels of knowledge, comprehension, and application. While many feel an online course may be a point and click adventure, many students perceive online courses to in fact be harder than traditional face-to-face courses. Courses at FLVS are designed by a team of specialists focused on many factors of the online environment, as well as the course content itself.

Findings by Cavanaugh (2001), suggest that hybrid courses that comprise both face-to-face and online methods have greater retention and outcomes than purely online courses. Outside of teachers and students, it was also noted that parents and distance learning advisors may play a vital role through helping students stay on track with course requirements, and deciding if online learning is an appropriate choice for course

completion (Oliver, Osbourne, Patel, & Kleiman, 2009). Both venues of education can be combined together for an enhanced learning experience.

### *Hybrid courses*

Online learning can be an extension of the classic, brick and mortar classroom. Hybrid courses are a blending of online and face-to-face teaching. Hybrid courses can assist students who miss a class to catch up, or may facilitate bringing in a noted lecturer or expert from a distant location. Blended courses, also known as hybrid courses, are an amalgamation of an online course and a traditional, face-to-face class that permits flexibility for both the teacher and student. Some instructors will provide basic class information (syllabi, etc.) online, but still hold face-to-face lectures and activities with students. Other teachers choose to post the majority of course materials, and conduct discussions online in order to reduce the number of face-to-face meetings. Hybrid courses also allow students to gradually become comfortable with handling an online class. Blended or hybrid models of online learning not only provide considerable educational value, but are cost effective as well. While technology costs continue to decrease, just the opposite is proving true for class sizes, teaching salaries, conventional school infrastructure, and operating costs.

Online learning is often used synonymously with distance education. Some criticize the fact that the learner and teacher are separate, lacking human contact. Hybrid classes dispel this conflict as communication and interaction is broadened, allowing students to participate in a less confining setting without the all knowing, sage teacher as ultimate facilitator. It can also be argued that online courses may bring together people from all over the globe that would not have otherwise communicated (Fowler & Wheeler,

1995). Hybrid courses can often allow for a greater sense of community by adding even small amounts of contact that decrease the sense of working in isolation that some associate with a fully online course. Students who may require more direction from an instructor may benefit from a blended course. Some schools now have virtual labs where students work on courses at their own pace, and still have assistance from certified, subject-area teachers.

### **Teaching Online**

Online schools may provide students with more highly qualified teachers, a critical issue for many rural area schools. Teacher shortages can also be addressed in any school through the use of online courses. Classroom space no longer becomes an issue, and many issues involved with the management of a large group in a classroom are virtually nonexistent online.

It is important for teachers to also be trained in online learning. Online professional training for teachers not only improves online courses, but also improves face-to-face teaching (Cavanaugh, 2009). Professional development for online instructors is also cost effective when delivered online, and allows educators to effectively utilize their time otherwise spent traveling to and from workshop sessions (Arora, 2009).

### **Funding Online Learning**

Policy and funding is a large issue for virtual schools. State funding to districts generally depends on average daily attendance/seat time of students which makes online



courses ineligible for funding. However, some states are providing free or reduced cost courses in order for students to take the online courses. FLVS has a unique per-pupil funding method that pays the school only after successful completion of a course (Roblyer, 2006). This facilitates accountability of online instructors to assist students in course completion. Teachers at FLVS also receive additional pay for helping students deemed at-risk to stay active and complete the course in which they have enrolled. As interest in online credit recovery courses continues to increase, state educational policy makers will be forced to take a look at the traditional seat time rules and whether or not that practice in schools is out dated.

In college, students pay tuition and have their choice of face-to-face or online courses. Not so for K-12 students in many states in the US. The value added factor of online programs also provides returns on financial investments. It is common knowledge that Americans use the internet more for entertainment than for education.

## **Pioneering Online Learning**

### ***iNACOL***

iNACOL, the International Association for K-12 Online Learning, is a nonprofit organization based in Washington, D.C. Members of iNACOL include school districts, state education agencies, non-profit organizations, research institutions, corporate entities and other technology providers. iNACOL's mission is to ensure all students have access to a world class education and quality online learning opportunities that prepare them for a lifetime of success. iNACOL functions to advocate online education, facilitate research for online learning, provide professional development, as well as networking with regards

to K-12 online education for educators (International Association for K-12 Online Learning, 2009).

### ***Apex Learning***

Apex Learning is the leading provider of digital courseware for secondary education in the nation's schools. Since 1999, Apex Learning has served over 660,000 students through 2.8 million enrollments and 4,500 school districts, in 50 states and 72 countries. Apex is accredited as a Distance Education School by the Commission on Schools of the Northwest Association of Accredited Schools (NAAS). Apex Learning offers three levels of core courses, also providing audio and text materials that can be skipped or utilized by a student (Davis, 2010). Apex offers communication between instructor and student via wiki, email, instant messaging, or by telephone ([www.apexlearning.com](http://www.apexlearning.com), 2010).

### ***K12.com***

K12 is the largest, exclusively online provider of kindergarten through high school education started in 1999. K12 is AdvancED-accredited, a parent organization of the North Central Association Commission on Accreditation and School Improvement (NCA CASI) and the Southern Association of Colleges and Schools Council on Accreditation and School Improvement (SACS CASI) ([www.k12.com](http://www.k12.com) , 2010).

### ***Florida Virtual Schools- FLVS***

The Florida Virtual Schools pioneered the online learning movement in 1997, as the country's first, state-wide Internet-based public high school. FLVS has open enrollment that served 63,675 public, private, and home schooled students in 2007-8, in 137,450 half-credit courses. Students outside the state of Florida may pay tuition to take

courses. FLVS offers ten different AP courses, and more than 90 courses total. FLVS courses are NCAA approved and is accredited by the Southern Association of Colleges and Schools. There are over 1,000 instructors for FLVS, and all are teacher certified in the subject they facilitate. Florida ranks as the number one wired state, serving 125,000 students and had a 25% increase in online K-12 attendance last year, according to the 2009 Online Learning Policy Survey: A Survey of the States.

FLVS also uses teams of specialists to develop each of the web-based courses for students. Each team consists of subject matter experts, project managers, web development specialists, and external instructional designers (Johnston, 2004). Subject experts sift through instructional material necessary for students to learn, web developers focus on adjusting course presentation to different learning styles, and instructional designers create engaging activities for students to accomplish the objectives of the instructor experts. FLVS courses are also based on Gagne's nine events of instruction (levels 4, 5, and 6), and the analysis, synthesis, and evaluation of Bloom's taxonomy (Friend & Johnston, 2005).

#### ***North Carolina Virtual Public School – NCVPS***

Oliver et al. (2009) reviewed the challenges and findings of the newly formed North Carolina Virtual Public School (NCVPS). The authors investigated the different experiences of accelerated learners and credit recovery students taking online courses, soliciting teacher experiences as well. Courses at NCVPS are free to North Carolina students, and each high school has a designated distance learning advisor. NCPVS courses are instructed by certified teachers, with numerous subject courses developed in-state and most delivered via the Blackboard course management system. The study of

the NCVPS took place during the 2007 initial summer of deployment using Web-based surveys during final exams, and included open ended questions along with twenty or less, Likert-type scale questions. The inquiry employed a mixed methods concurrent triangulation design that incorporated quantitative and qualitative data sources, analyzed using two way ANOVA and logistic regression where appropriate. Teachers and students had a response rate of 86% and 10% respectively.

According to Oliver et al. (2009), most students (63.9%) stated that their online courses were good to excellent, with only 10.1% reporting courses as poor. Accelerated students were more likely to have a higher rating of courses than credit recover student ratings, and expressed more interest in taking additional online courses. Teachers had a similar trend (67.5%) stated that they had a good or excellent teaching experience, with only 9% rating their experience as poor. Teachers with more experience teaching online courses expressed more interest in continuing to teach for NCVPS.

Three major outcomes were discovered as a result of the data obtained by Oliver et al. (2009). The advantages of online learning included increased flexibility, more student responsibility for learning, secondary and new educational opportunities, as well as individualized instruction and support. Course design issues concerned course content, course assignments, and course assessment. Student readiness for online learning involved technical skills, technical resources, and self-directedness. All quantitative statistics obtained were supported with qualitative comments from both students and teachers.

NCVPS teachers described the flexibility to learn at anytime, and increased responsibility of students as a positive outcome with online learning. Giving students

opportunities to take courses they would not otherwise have access to, or even a second chance to pass a failed course was perceived as supportive to student achievement.

Teachers reported that online students seem to be more comfortable and much more likely to ask questions, although students wanted teachers to send them more reminders for assignment deadlines. Online courses were often viewed as more difficult than face-to-face courses, and the large amount of assignments to complete in a short amount of time was a complaint both teachers and students had of the NCVPS online courses. Students had difficulties with the high volume of assignments/quizzes/tests (up to 159 in a five week period), and the considerable grading/feedback was an issue for teachers. Evidence in both teacher and student surveys suggested that online courses needed to have a practical amount of higher level tasks that allowed for reflection and authentic assessment. Students expressed the desire for teacher-recorded lectures and demonstrations, as well as more planned social interaction among students in the forms of chats, virtual classrooms, video conferencing, or instant messaging. A mix of synchronous (live communication modes) and asynchronous (posting/discussion boards) was recommended by students. Teachers also advocated for professional development opportunities in online tools and pedagogy, and a desire for face-to-face conferences with experienced online teachers in order to share “best practices.”

Credit recovery students had more technical issues than the accelerated students on average at NCVPS. It is important for a virtual school to necessitate a student orientation of sample activities similar to those they will be expected to carry out within the online course (Ko & Rossen, 2004). Roblyer and Marshall (2002), showed that students who possess strong technical skills are more likely to pass online courses. It was

also discovered that NCVPS needed to do a more adequate screening of students' hardware and software they would need to complete the online courses. Self-motivation, efficacy, and the discipline needed for course completion was a problem for many of the credit recovery students, although the situation was likely no different than in a face-to-face, traditional classroom setting. Teachers suggested that many of the online students actually needed more interaction and assistance, and that it was very important for course expectations to be fully understood in order for the student to successfully complete the online course. Accelerated students were better at self-pacing, while the credit recovery student needed more synchronous, face-to-face assistance to understand course content.

### **Summary**

Online learning has the potential to dramatically change education in the United States in a powerful way. While still in its early stages, the impact it can have to help at-risk student in particular may facilitate a reduction in high school drop outs to produce a more educated society. Statistics support the development of more online learning programs to better meet the needs of a changing student culture. While there are many advantages of online learning, it does present new educational issues that must be addressed. There are noted best practices for successful Internet learning and educators must adapt teaching practices to support students in their learning endeavors. Pros and cons of curricula presented in the classroom or via the Internet can often be resolved through a hybrid course utilizing the best of both arenas. Funding for online education may be affected by seat time, although the benefits of offering courses online may steer

policy in new directions. Pioneers in the online edu-industry have set solid standards and are producing positive results for students all over the world.

## **CHAPTER THREE**

### **METHODOLOGY**

This chapter describes the research methodology and procedures that were used to collect and analyze the data for this study, as well as to address the research questions.

The methodology is divided into the following subsections: (a) research design, (b) participants and data sources, (c) procedures and instrumentation, (d) data analyses, (e) limitations, and (f) summary.

The purpose of this study was to determine the current state of online learning opportunities via credit recovery, available to at-risk students, in order for them to complete their high school diploma. This study investigated what data exists regarding high school dropouts utilizing credit recovery through online learning to complete their high school diploma in Texas. Credit recovery data was obtained from the Big City Independent School District and the State Virtual School Network (StateVSN). The following research questions were addressed in this study:

1. Is online learning effective as a credit recovery tool for at-risk students, as indicated by successful completion of online courses?
2. Are at-risk students more successful in certain online learning courses, or during certain grade levels?
3. What are the factors that increase or decrease the successful completion of credit recovery courses via online learning?



## **Research Design**

A non-experimental, quantitative research design using archival data was the method used for this study. This design was appropriate for the study because the study utilizes archival data for at-risk students using online learning to recover credit.

## **Participants and Data Sources**

The research study population was a convenience sample of at-risk students who completed credit recovery programs or initiatives within Big City ISD and StateVSN. BCISD was asked to provide data generated by student completion and non-completion rates of online credit recovery courses for the 2009-10 school year. Completion/drop/non-completion rates for all students taking online courses through StateVSN was requested through a public information request of SEA (State Education Agency). Any supporting survey data in regards to the online course experience was also requested as supporting documentation for this research.

### **Student Population and Online Credit Recovery Programs**

#### *Big City ISD*

Big City ISD educates a diverse student population of over 200,000 students, with 63.2% of the students classified as at-risk (Public Education Information Management System, 2010). One of the largest school districts boasts a student population composed of 61.7% Hispanic, 26.5% African American, with 7.8% White, and 2.9% Asian. The cohort class of 2009 had a 70.0% graduation rate (AEIS, 2010). Big City ISD utilizes Apex Learning and students are able to work on campus, before or after school,

weekends, or from home. According to the Guide to Big City ISD Online Credit Recovery Initiative, the majority of high school core curriculum is offered. Students targeted for the program include 12<sup>th</sup> grade students in jeopardy of not graduating, students failing three or more courses in the previous semester, or students retained, overage, or not graduating with their current year's class. Graduation coaches were also employed to advocate and provide assistance within credit recovery labs in order to help students complete online courses.

### *StateVSN*

The State Virtual School Network was developed by the 80<sup>th</sup> State legislature, with the passage of House Bill 1788 ([www.StateVSN.org](http://www.StateVSN.org)) to create and maintain electronic education within the state. With the development of this new network, students could receive instruction through an online environment and not have to be located on the same physical premises. The first online classes were offered to students in 2009, and only offered for secondary students grades 9-12. Courses are still only offered for high school students as supplemental classes, and the StateVSN does not offer students a full diploma. Districts can post courses for other students to take online, in which the providing district receives compensation of \$400 per student upon successful reporting of a completed course to SEA. School districts who have students who successfully take online courses through the StateVSN, also receive an allotment from the state of \$80. There is currently no charge for students to take courses through the StateVSN. Courses offered through the StateVSN are aligned to the state curriculum TEKS, as well as adhere to iNACOL standards. Online instructors are state certified teachers and receive training in online pedagogy. The StateVSN is a valuable tool in

expanding course offerings, helping students with schedule conflicts, or lowering numbers in overcrowded classrooms. Students in alternative settings are able to access courses electronically, credit recovery courses are available, and AP (advanced placement) courses are also offered.

### *Texas*

Texas has over 4.8 million students within 1,237 school districts and charter schools, taught by 333,000 teachers (Texas Public School Statistics, 2009-10). Most of the students in Texas are Hispanic (49%) and White (33%), and more than half are economically disadvantaged. As of 2010, the state of Texas developed the Dropout Recovery Pilot Program (DRPP), although currently the state has no agency that tracks online credit recovery data for dropouts. The DRPP identifies and recruits students who have dropped out of Texas public schools, with the mission of providing them with services that will enable them to earn a high school diploma (Texas Dropout Recovery Pilot Program, 2010). One key feature of this program is to provide maximum flexibility to meet student needs, utilizing cutting edge strategies to ensure learning environments that are personalized and challenging for each student. This research will be original in that it will attempt to track successful at-risk students who have utilized online credit recovery to complete a high school diploma.

## **Procedures and Instrumentation**

Online credit recovery completion rate data were requested from BCISD through a formal research application request. The district was asked to provide completion rates, as well as any supporting data they collected about the online course student experience in spreadsheet format if possible. Many online course providers survey students in regard to their overall online experience after completing an online course. This study collected archival data of completion rates for students attempting credit recovery via online learning. Approval by the University of Houston Committee for the Protection of Human Subjects was obtained before beginning the study (Appendix A). A research application was sent to Big City ISD, to request completion data generated by students who had participated in online credit recovery courses during the 2009-10 school year. BCISD approved the research and supplied letters of consent to obtain the data (Appendix B). Big City ISD also supplied completion and withdrawal surveys given to students as an option after successful completion or withdrawal from an online course (Appendix E, F). An open information request was also submitted to TEA to obtain the StateVSN completion rates (Appendix C). Approval was granted for data to be obtained for the StateVSN completion rates through TEA (Appendix D). Informed consent from participants is unnecessary, as data utilized will be archival and every measure will be taken to maintain confidentiality.

The completion survey from Big City ISD was obtained (Appendix E) as supporting documentation of factors that affect online course completion. After successful completion of an online course, students were given an optional survey about their course experience. Students were asked which course they completed, the number

of weeks it took to complete the course, average number of hours it took to complete the course during and before or after school, whether on campus or at home. Students were asked for their grade level, grade they expected to receive in the course, as well as how many online courses they had previously taken. Next, students were given Likert-type questions about their online course experience. On a scale of 1 to 5 (Table 1), students were then asked how they felt about taking an online course, time management, technical navigation of course, subject likeability, course presentation, technical difficulties, teacher assistance during the course, and whether they would recommend the online course. Students were given the opportunity to select multiple statements about how they would like to receive future online courses, and reasons they could have done better in the course from set responses they could check. Lastly, students also had the opportunity to make open ended responses to improve the online course and suggest things they liked and things they would change.

*Table 1.* Likert-style Answer Format

|                            | <b>1</b>              | <b>2</b>              | <b>3</b>              | <b>4</b>              | <b>5</b>              |                         |
|----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------|
| <b>I Strongly Disagree</b> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <b>I Strongly Agree</b> |

The withdrawal survey from Big City ISD (Appendix G) is also used as supporting documentation of factors that affect online course completion. Every student who withdrew from a BCISD online course was expected to complete the survey, or a staff member did so if the student was not available. The respondent indicated if they were the student, graduation coach/campus monitor, school counselor/AP, or other filling out the survey. Other information on the withdrawal survey included what school they

were attending, course withdrawing from, and grade level. Responders were given the opportunity to select multiple statements about why the student was withdrawn from the course, reasons they might have been able to complete the course, and ways in which they plan to now obtain the needed credit. Lastly, students also had the opportunity to make open ended responses in regard to anything else they would like to add about the reason they were withdrawing from the online course.

### **Data Analysis**

Data collected were analyzed for student completion rates via online credit recovery in courses during the 2009-10 school year. The analysis of archival data were conducted in EXCEL and SPSS 18.0, based on completion rates of credit recovery courses online. The archival survey data of students in BCISD were analyzed using descriptive statistics (means, standard deviation, percent of responses and counts) and compared for correlations. Open ended responses were coded and examined for general patterns and themes. Below is a summary table (Table 2) of research questions, data sources, collection procedure, and data analysis.

*Table 2. Summary of Research Questions, Data Sources, Collection Procedure, and Data Analysis*

| <b>Research Questions</b>  | <b>Data Source</b>   | <b>Collection Procedure</b>   | <b>Data Analysis</b> |
|--|--|---|----------------------|
| 1. Is online learning effective for credit recovery for at-risk students, as indicated by successful completion of online courses? | A convenience sample of at-risk students who have completed credit recovery programs or initiatives within Big City ISD & students taking online courses through StateVSN. | Online credit recovery completion/drop/non-completion rate data will be requested via a BCISD research application request and public information request of TEA.   | Excel & SPSS         |
| 2. Are at-risk students more successful in certain courses online learning courses, or during certain grade levels?                | Completion/drop/non-completion rates for students taking specific online courses and during secondary grade levels   | An open information request was submitted to the State Educational Agency to obtain the StateVSN completion rates.  |                      |
| 3. What are the factors that increase or decrease the successful completion of credit recovery courses via online learning?        | BCISD online completion and withdrawal surveys   | Educational entities were asked to provide completion/ drop/non-completion rates, as well as any supporting data they collected about the online course experience. |                      |

## **Limitations**

The purpose of the study is to collect data in regards to online credit recovery for at-risk students completing a high school diploma. Limitations within the study include the limited number of data sets available for the 2009-10 school year, as well as using an urban school district as the convenience sample. The completion and withdrawal studies were obtained from BCISD only, and so cannot be correlated with the StateVSN students. While the the State Education Agency has just begun to track the StateVSN online credit recovery data due to funding stipulations, other districts do not report this method of credit recovery as a means of dropout prevention. Data sources and instrumentation may include gaps, and may not be fully comparable to every district in Texas. While advantages and disadvantages of online learning for at-risk students will be discussed, data may be limited for at-risk students exclusively. A major limitation in the study surrounds the newness and availability of access to online completion data overall.

## **Summary**

This chapter described the research design, participants, procedures, data collection, and data analysis used to complete this study. Essentially, this research will assemble data of at-risk students utilizing online learning to complete a high school diploma. Descriptive statistics were used to analyze data gathered from various online sources. Results obtained will be presented in chapter four of this study. Chapter five will then provide conclusions drawn from the results obtained in this study.



## **CHAPTER FOUR**

### **RESULTS**

#### **Introduction**

The purpose of this study was to determine the current state of online learning opportunities via credit recovery, available to at-risk students, in order for them to complete their high school diploma. This study investigated what data exists regarding potential high school dropouts utilizing credit recovery through online learning to complete their high school diploma in Texas during 2009-10 school year. This study revealed the frequencies of students taking various online credit recovery courses, the grade levels at which they took the courses, and whether students failed to complete, dropped, or passed the online course. Completion and withdrawal surveys were obtained that provided reflective findings of students' attitudes toward their online learning experience. This study attempts to examine the following:

1. Is online learning effective as a credit recovery tool for at-risk students, as indicated by successful completion of online courses?
2. Are at-risk students more successful in certain online learning courses or at particular grade levels?
3. What are the factors that increase or decrease the successful completion of credit recovery courses via online learning?

This chapter presents the results of tests run on each data set obtained, divided into sections by each research question investigated.

## **Descriptive Statistics**

This study used the Statistical Package for the Social Sciences (SPSS 18.0) to analyze the data obtained from each entity. The original, raw data were converted and coded in order to utilize the SPSS 18.0 program for statistical data analysis. Online course completion data were obtained in EXCEL spreadsheet files from BCISD, and the StateVSN (provided through the State Education Agency). Additionally, BCISD provided two separate surveys given to students taking online credit recovery courses. An EXCEL spreadsheet was obtained containing a compilation of answers given by students who had the option to complete a survey about their online experience. A second EXCEL spreadsheet provided an assemblage of reasons a student would have been withdrawn from an online credit recovery course, as well as details of the withdrawal.

### *Completion Rate Data*

For the completion data, each variable was renamed with an eight character SPSS label for data analysis. Variables included the course taken by the student (COURSETN), grade level of the student (GRADELEV), and whether the student completed, dropped, or did not complete the course (PASSFAIL). Coding remained consistent for every data set, whether BCISD, or StateVSN. Every course taken was coded by semester (A=first semester, B=second semester), with the following codes: 1=English A, 2=English B, 3=history A, 4=history B, 5=math A, 6=math B, 7=science A, 8=science B, 9=government, 10=economics, 11=foreign language A, 12=foreign language B, 13= elective (no distinction in semester), 14=math (undisclosed semester), 15=speech (no distinction in semester), 16=health (no distinction in semester), 17=PE (no

distinction in semester), and 18=history (undisclosed semester). Core classes were grouped, English courses included English 1-4, math courses included algebra 1-2/geometry/precal/math models, science courses included biology/IPC/chemistry/physics, and history courses included world geography/world history/US history. Elective courses could have included drivers education, art, art history, elective sciences/history, psychology, or sociology. Both BCISD and StateVSN student grade levels were coded 1=freshmen (9<sup>th</sup> grade), 2=sophomores (10<sup>th</sup> grade), 3=juniors (11<sup>th</sup> grade), 4=seniors (12<sup>th</sup> grade). Completion rates were coded based on the available data, as 0=non-completion or failure of an online course, 1=dropping an online course (BCISD did not record this parameter), or 2=completion/successful gaining of credit for an online course. The semester in which a student took a course was obtained for StateVSN, and was coded as 1=fall semester, 2=spring semester, 3=summer I semester, and 4=summer II semester.

#### *Completion Survey Data*

Students in BCISD were given the option to complete a survey after successful completion of their course. For the completion survey, there were  $N=334$  individual responses recorded, although many questions students did not fill in. Students were asked to list the course they completed and courses were coded exactly as listed above for completion data: 1=English A, 2=English B, 3=history A, 4=history B, 5=math A, 6=math B, 7=science A, 8=science B, 9=government, 10=economics, 11=foreign language A, 12=foreign language B, 13= elective (no distinction in semester), 15=speech (no distinction in semester), 16=health (no distinction in semester), and 17=PE (no distinction in semester). Students were then asked to fill in the next questions with the amount of weeks it took to complete the course (variable WEEKSCOM), and average

hours they spent during school (variable HRSVVSCH)/before and after school(variable HRSVVBAS)/at home (variable HRSVHVM) working on the course. The weeks to complete were coded by number of weeks, and average hours were coded by number of hours. Student grade levels (variable GRADELEV) were coded 1=freshmen (9<sup>th</sup> grade), 2=sophomores (10<sup>th</sup> grade), 3=juniors (11<sup>th</sup> grade), 4=seniors (12<sup>th</sup> grade). Next, students entered the grade they expected to get in the class (variable GRDEXPCT), coded as 0=F, 1=D, 2=C, 3=B, 4=A, 5=no idea. Students also selected the number of online courses they had taken before the current course (variable NUMCRTKN), coded as 0=first one, 1=1 other, 2=2 other, 3=3 or more.

The next section of the completion survey listed eight Likert-style questions. Students were solicited to respond to statements, 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree, also coded as such. Statements asked of students included if they felt good about online courses (variable IFEELGUD), if they managed their time well (variable IMANTIME), if they found it easy to access and navigate the course (variable IACCNAVC), if they liked the subject before they took the course (variable ILIKESUB), if they felt the way the material was presented kept them interested (variable IMANTINTR), if they had technical difficulties (variable ITECHDIF), if teacher feedback was good and helpful (variable ITCHRFDB), and if they would recommend online courses to their friends (variable IRECCOLL).

In the last portion of the Completion Survey, students were asked to complete several statements. For two of the questions in the survey, respondents were able to check more than one answer for the statement. Most respondents only selected one answer, and those with one definitive answer were included in this study. These statements were

coded for various answers trends (variable ANTHCOUR). When asked what the student hoped if they would take another online course, they could select that they were scheduled again for the Grad Lab during the day coded=1, the Grad Lab would be open more frequently coded=2, more materials were provided coded=3, there was more time with the teacher face to face coded=4, or a blank other box they could fill in coded=5, or filled in nothing=6. Students were also asked what factors could have made them do better in their online course (variable CUDOBETR). Answers were coded 1=my teachers gave me better feedback, 2=the course was easier to navigate, 3=the course content was more interesting, 4=I spent more time working on courses at home, 5=I was given more time during the school day to work on my course, 6=a blank other box they could fill in, or 7=filled in nothing. The last two questions on the survey were not analyzed by SPSS methods, as they were open text boxes students could fill in. Qualitative descriptions were generated from compiling the answers from students when asked if they liked taking courses in the GRAD Lab over the regular courses, and what they would change if they could change one thing about their experience.

#### *Withdrawal Survey Data*

For the withdrawal survey, there were  $N=1314$  individual responses recorded, although many questions on the survey went unanswered by respondents. For this reason, data were compiled in a qualitative manner for use in this study, to be described under research question #3.

### Research Question #1

For research question number one, **is online learning effective as a credit recovery tool for at-risk students, as indicated by successful completion of online courses**, completion rates were looked at for frequencies and valid percents. According to the BCISD completion data ( $N=2836$ ), Table 3 presents a completion/pass rate of 92.2%, and a non-completion/fail rate of only 7.8%. For StateVSN completion rates, Table 4 displays a completion rate of 47.9%, a drop rate of 36.8%, and a non-complete/fail rate of 15.3%. Together, StateVSN had a drop/non-completion rate of 52.2%. Both entities had a low number ( $N=13$ ) of courses taken without pass, drop, or fail recorded for the total number of individuals ( $N=8475$ ) accounted for in all completion rate data.

*Table 3.* Frequency Distribution of BCISD Students Completing Online Courses, 2009-10 ( $N= 2836$ )

| Completion        | N    | Valid % |
|-------------------|------|---------|
| Non-complete/Fail | 221  | 7.8     |
| Complete/Pass     | 2610 | 92.2    |
| Missing           | 5    |         |
| Total             | 2836 | 100.0   |

*Table 4.* Frequency Distribution of StateVSN Students Completing Online Courses, 2009-10 ( $N = 5639$ )

| Completion<br>%   | N    | Valid |
|-------------------|------|-------|
| Non-complete/Fail | 860  | 15.3  |
| Drop              | 2074 | 36.8  |
| Complete/Pass     | 2697 | 47.9  |
| Missing           | 8    |       |
| Total             | 5639 | 100.0 |

## Research Question #2

For research question number two, **are at-risk students more successful in certain online learning courses or at particular grade levels**, frequencies of courses taken and grade level success were analyzed for both BCISD and StateVSN. For BCISD, Table 5 presents frequencies of each course taken by credit recovery students. The large majority of courses were core classes needed for graduation. English accounted for 30.7%, history 24.0% (including government and economics), math 17.7%, and science at 18.2%. Foreign language accounted for 8.9%, and is also part of the recommended graduation program in the State of Texas. Other courses taken (.4%) did include some electives, speech and health that could also be needed for graduation.

*Table 5. Frequencies of Online Courses Taken BCISD (N=2836)*

| Course             | Frequency | %    |
|--------------------|-----------|------|
| English A          | 489       | 17.2 |
| English B          | 384       | 13.5 |
| History A          | 232       | 8.2  |
| History B          | 225       | 7.9  |
| Math A             | 304       | 10.7 |
| Math B             | 199       | 7.0  |
| Science A          | 291       | 10.3 |
| Science B          | 224       | 7.9  |
| Government         | 121       | 4.3  |
| Economics          | 101       | 3.6  |
| Foreign Language A | 128       | 4.5  |
| Foreign Language B | 126       | 4.4  |
| Elective           | 3         | .1   |
| Speech             | 6         | .2   |
| Health             | 3         | .1   |
| Total              | 2836      | 100  |

Note: A=first semester, B=second semester

The majority of BCISD Students participating in online credit recovery were seniors (33.7%), with the lowest percentage (18.4%) of freshmen. Sophomores, interestingly, outnumbered juniors taking online courses by several percentage points (Table 6).



*Table 6. Frequency of Grade Levels of Students Taking Online Courses BCISD (N=2836)*

| Grade                               | Frequency | %    |
|-------------------------------------|-----------|------|
| Freshmen (9 <sup>th</sup> grade)    | 523       | 18.4 |
| Sophomores (10 <sup>th</sup> grade) | 711       | 25.1 |
| Juniors (11 <sup>th</sup> grade)    | 646       | 22.8 |
| Seniors (12 <sup>th</sup> grade)    | 956       | 33.7 |
| Total                               | 2836      | 100  |

Cross tabulations were calculated for BCISD courses taken and completion rates, to indicate which courses had the highest and lowest completion rates (Table 7). According to the data, the highest non-completion/failures were seen in the first semester of history courses, and fewest non-completion/failures within the courses of English B and government classes. Electives, speech, and health also had low non-completion rates, however the actual amount of students taking those courses for credit recovery had a very low frequency overall. Courses with the highest completion/success rates included English A, with economics having the lowest completion rates among courses taken at a high frequency. Again, electives, speech and health appear to have high completion rates but few students actually taking those courses.

Table 7. Crosstabulation of Course Taken and Pass Fail for BCISD (N=2831)

| Course |                    | EngA   | EngB   | HisA   | HisB   | MathA  | MathB  | SciA   | SciB   | Gov    | Eco    | FL-A   | FL-B   | Elec   | Spch   | Health | Total  |
|--------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fail   | Count              | 30     | 0      | 71     | 54     | 3      | 8      | 10     | 6      | 0      | 19     | 16     | 4      | 0      | 0      | 0      | 221    |
|        | % within Pass Fail | 13.6%  | .0%    | 32.1%  | 24.4%  | 1.4%   | 3.6%   | 4.5%   | 2.7%   | .0%    | 8.6%   | 7.2%   | 1.8%   | .0%    | .0%    | .0%    | 100.0% |
|        | % within Course    | 6.2%   | .0%    | 30.6%  | 24.0%  | 1.0%   | 4.0%   | 3.4%   | 2.7%   | .0%    | 19.0%  | 12.5%  | 3.2%   | .0%    | .0%    | .0%    | 7.8%   |
| Pass   | Count              | 456    | 384    | 161    | 171    | 301    | 191    | 281    | 217    | 121    | 81     | 112    | 122    | 3      | 6      | 3      | 2610   |
|        | % within Pass Fail | 17.5%  | 14.7%  | 6.2%   | 6.6%   | 11.5%  | 7.3%   | 10.8%  | 8.3%   | 4.6%   | 3.1%   | 4.3%   | 4.7%   | .1%    | .2%    | .1%    | 100.0% |
|        | % within Course    | 93.8%  | 100.0% | 69.4%  | 76.0%  | 99.0%  | 96.0%  | 96.6%  | 97.3%  | 100.0% | 81.0%  | 87.5%  | 96.8%  | 100.0% | 100.0% | 100.0% | 92.2%  |
| Total  | Count              | 486    | 384    | 232    | 225    | 304    | 199    | 291    | 223    | 121    | 100    | 128    | 126    | 3      | 6      | 3      | 2831   |
|        | % within Pass Fail | 17.2%  | 13.6%  | 8.2%   | 7.9%   | 10.7%  | 7.0%   | 10.3%  | 7.9%   | 4.3%   | 3.5%   | 4.5%   | 4.5%   | .1%    | .2%    | .1%    | 100.0% |
|        | % within Course    | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Chi Square 359.612 (Asympt. Sig. 2-sided .000)

Cross tabulations were also calculated for grade levels and pass/fail rates (Table 8). The following data showed that sophomores had the highest non-completion/failures rates, with juniors having the lowest non-completion/failure rates. On the contrary, seniors had the highest completion rates, with freshmen students having the lowest completion rates in online courses.

*Table 8.* Cross tabulation of Grade Level with Pass/Fail Rate BCISD (N=2831)

|                      | 9 <sup>th</sup> grade | 10 <sup>th</sup> grade | 11 <sup>th</sup> grade | 12 <sup>th</sup> grade | Total |
|----------------------|-----------------------|------------------------|------------------------|------------------------|-------|
| Fail                 | 26                    | 124                    | 21                     | 50                     | 221   |
| % within pass fail   | 11.8%                 | 56.1%                  | 9.5%                   | 22.6%                  | 100%  |
| % within grade level | 5.0%                  | 17.4%                  | 3.3%                   | 5.3%                   | 7.8%  |
| Pass                 | 497                   | 587                    | 624                    | 902                    | 2610  |
| % within pass fail   | 19.0%                 | 22.5%                  | 23.9%                  | 34.6%                  | 100%  |
| % within grade level | 95.0%                 | 82.6%                  | 96.7%                  | 94.7%                  | 92.2% |
| Total                | 523                   | 711                    | 645                    | 952                    | 2831  |
| % within pass fail   | 18.5%                 | 25.1%                  | 22.8%                  | 33.6%                  | 100%  |
| % within grade level | 100%                  | 100%                   | 100%                   | 100%                   | 100%  |

Chi Square 124.718 (.000 Asymp. Sig. 2-sided)

For StateVSN, Table 9 presents frequencies of each online course taken by students across Texas. The large majority of courses were elective classes at 41.8%, not core classes. Speech and health comprised 5.2% of courses taken, and PE at .7%. English accounted for 12.8%, history 22.7% (including government and economics),

math 7.3%, and science at 3.2%. Foreign language accounted for 6.3% of classes taken online.

*Table 9. Frequencies of Online Courses Taken StateVSN (N=5638)*

| Course             | Frequency | %    |
|--------------------|-----------|------|
| English A          | 525       | 9.3  |
| English B          | 196       | 3.5  |
| History A          | 169       | 3.0  |
| History B          | 165       | 2.9  |
| Math A             | 185       | 3.3  |
| Math B             | 132       | 2.3  |
| Science A          | 124       | 2.2  |
| Science B          | 57        | 1.0  |
| Government         | 685       | 12.1 |
| Economics          | 174       | 3.1  |
| Foreign Language A | 157       | 2.8  |
| Foreign Language B | 195       | 3.5  |
| Elective           | 2356      | 41.8 |
| Math*              | 97        | 1.7  |
| Speech             | 87        | 1.5  |
| Health             | 208       | 3.7  |
| PE                 | 38        | .7   |
| History*           | 88        | 1.6  |
| Total              | 5639      | 100  |

Note: A=first semester, B=second semester, \* semester undisclosed

Students taking online courses through StateVSN (Table 10), were comprised 44.1% of juniors, and sophmores totaling 22%. Seniors made up the second to lowest category at 17%, with freshmen having an only slightly lower percentage at 16.8%.

*Table 10.* Frequency of Grade Levels of Students Taking Online Courses StateVSN

| Grade                               | Frequency | %    |
|-------------------------------------|-----------|------|
| Freshmen (9 <sup>th</sup> grade)    | 947       | 16.8 |
| Sophomores (10 <sup>th</sup> grade) | 1241      | 22.0 |
| Juniors (11 <sup>th</sup> grade)    | 2488      | 44.1 |
| Seniors (12 <sup>th</sup> grade)    | 961       | 17.0 |
| Total                               | 5639      | 100  |

Data obtained from StateVSN also noted the semester at which students took classes (Table 11). Most of the online courses taken through StateVSN were taken during the summer (57.7% total). The spring semester (32.2%) out numbered courses taken during the fall semester (10.1%) by a large percent.

*Table 11.* Frequency of Semesters in which Students Took Online Courses StateVSN  
(N=5630)

| Semester  | Frequency | %    |
|-----------|-----------|------|
| Fall      | 571       | 10.1 |
| Spring    | 1815      | 32.2 |
| Summer I  | 3033      | 53.8 |
| Summer II | 220       | 3.9  |
| Total     | 5630      | 100  |

Cross tabulations were calculated for StateVSN courses taken and completion rates, to indicate which courses had the highest and lowest completion rates, as well as drop rates (Table 12). According to the data, the highest non-completion/failures of core courses were seen in the first semester of English courses, and fewest non-completion/failures within the first semester of science courses. Elective courses had a high non-completion/failure rate but also had the highest frequency of students taking those courses. The several courses without semester denotations (14-math, 16-history), as well as speech also had low non-completion rates, however the actual amount of students taking those courses for credit recovery had a very low frequency overall. Courses that were dropped most often were non-core electives courses, and government courses. Second semester science courses were dropped the least, along with first semesters of foreign languages. Courses with the highest completion/success rates followed

the same trends as dropped courses. Highest completion rates were seen for non-core electives, as well as government courses. The lowest completion rates fell among the second semester of science courses. Again, several courses without semester denotations (14-math, 16-history), as well as speech also had low completion rates, however the actual amount of students taking those courses for credit recovery had a very low frequency overall.

*Table 12. Crosstabulation of Course Taken and Pass Drop Fail State* VSN

| Course Total       |       | EngA  | EngB  | HisA  | HisB  | MathA | MathB | SciA  | SciB  | Gov   | Eco   | FL-A  | FL-B  | Elec  | Math  | Spch  | Health | PE    | His |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-----|
| Fail               | Count | 108   | 71    | 71    | 47    | 44    | 40    | 13    | 19    | 65    | 31    | 39    | 34    | 207   | 9     | 31    | 16     | 12    | 3   |
| 860                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |
| % within Pass Fail |       | 12.6% | 8.3%  | 8.3%  | 5.5%  | 5.1%  | 4.7%  | 1.5%  | 2.2%  | 7.6%  | 3.6%  | 4.5%  | 4.0%  | 24.1% | 1.0%  | 3.6%  | 1.9%   | 1.4%  | .3% |
| 100.0%             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |
| % within Course    |       | 20.9% | 36.2% | 42.0% | 28.5% | 23.8% | 30.3% | 10.5% | 33.3% | 9.5%  | 17.8% | 24.8% | 17.4% | 8.8%  | 9.3%  | 35.6% | 7.7%   | 31.6% |     |
| 3.4% 15.3%         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |
| <br>               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |
| Drop               | Count | 213   | 54    | 40    | 49    | 69    | 39    | 80    | 24    | 236   | 55    | 27    | 41    | 990   | 45    | 12    | 43     | 3     | 54  |
| 2074               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |
| % within Pass Fail |       | 10.3% | 2.6%  | 1.9%  | 2.4%  | 3.3%  | 1.9%  | 3.9%  | 1.2%  | 11.4% | 2.7%  | 1.3%  | 2.0%  | 47.7% | 2.2%  | .6%   | 2.1%   | .1%   |     |
| 2.6% 100.0%        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |
| % within Course    |       | 41.2% | 27.6% | 23.7% | 29.7% | 37.3% | 29.5% | 64.5% | 42.1% | 34.5% | 31.6% | 17.2% | 21.0% | 42.0% | 46.4% | 13.8% | 20.7%  | 7.9%  |     |
| 61.4% 36.8%        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |
| <br>               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |
| Pass               | Count | 196   | 71    | 58    | 69    | 72    | 53    | 31    | 14    | 384   | 8     | 91    | 120   | 1159  | 43    | 444   | 149    | 23    | 31  |
| 2696               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |
| % within Pass Fail |       | 7.3%  | 2.6%  | 2.2%  | 2.6%  | 2.7%  | 2.0%  | 1.1%  | .5%   | 14.2% | 3.3%  | 3.4%  | 4.5%  | 43.0% | 1.6%  | 1.6%  | 5.5%   | .9%   | 1.1 |
| % 100.0%           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |
| % within Course    |       | 37.9% | 36.2% | 34.3% | 41.8% | 38.9% | 40.2% | 25.0% | 24.6% | 56.1% | 50.6% | 58.0% | 61.5% | 49.2% | 44.3% | 50.6^ | 71.6%  | 60.5% |     |
| 35.2% 47.9%        |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |
| <br>               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |
| Total              | Count | 517   | 196   | 169   | 165   | 185   | 132   | 124   | 57    | 685   | 174   | 157   | 195   | 2356  | 97    | 87    | 208    | 38    | 88  |
| 5630               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |     |



|                    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| % within Pass Fail | 9.2%   | 3.5%   | 3.0%   | 2.9%   | 3.3%   | 2.3%   | 2.2%   | 1.0%   | 12.2%  | 3.1%   | 2.8%   | 3.5%   | 41.8%  | 1.7%   | 1.5%   | 3.7%   | .7%    |
| 1.6%               | 100.0% |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| % within Course    | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| 100.0%             | 100.0% |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

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Chi Square 593.451 (Asympt. Sig. 2-sided .000)

Cross tabulations were also calculated for StateVSN student grade levels and pass/fail rates (Table 13). The following data shows that juniors had the highest frequency of non-completion/failures rates, and seniors had the lowest non-completion/failure rates. Courses were dropped most often by juniors, and least drops were at the freshmen level. Juniors also had the highest completion rates, while freshmen students had the lowest completion rates in online courses. Juniors took more courses at StateVSN overall.

*Table 13.* Cross tabulation of Grade Level with Pass Drop Fail Rate StateVSN (N=5629)

|   | 9 <sup>th</sup> grade | 10 <sup>th</sup> grade | 11 <sup>th</sup> grade | 12 <sup>th</sup> grade | Total |
|---|-----------------------|------------------------|------------------------|------------------------|-------|
| Fail  | 156                   | 240                    | 360                    | 104                    | 860   |
| % within pass fail                            | 18.1%                 | 27.9%                  | 41.9%                  | 12.1%                  | 100%  |
| % within grade level                          | 16.5%                 | 19.3%                  | 14.5%                  | 10.9%                  | 15.3% |
| Drop  | 312                   | 433                    | 959                    | 369                    | 2073  |
| % within pass fail                            | 15.1%                 | 20.9%                  | 46.3%                  | 17.8%                  | 100%  |
| % within grade level                          | 32.9%                 | 34.9%                  | 38.6%                  | 38.6%                  | 36.8% |
| Pass  | 479                   | 568                    | 1165                   | 484                    | 2696  |
| % within pass fail                            | 17.8%                 | 21.1%                  | 43.2%                  | 18.0%                  | 100%  |
| % within grade level                          | 50.6%                 | 45.8%                  | 46.9%                  | 50.6%                  | 47.9% |
| Total   | 947                   | 1241                   | 2484                   | 957                    | 5629  |
| % within pass fail                            | 16.8%                 | 22.0%                  | 44.1%                  | 17.0%                  | 100%  |
| % within grade level                          | 100%                  | 100%                   | 100%                   | 100%                   | 100%  |
| Chi Square 40.068 (Asympt. Sig. 2-sided .000) |                       |                        |                        |                        |       |

### **Research Question #3**

For research question three, **what are the factors that increase or decrease the successful completion of credit recovery courses via online learning**, a completion and withdrawal survey taken by BCISD students of online courses was used to illustrate this inquiry. For the completion survey, most students listed core classes as the courses taken, listing English courses most frequently, as well as foreign language courses. The first semester of history courses and second semester of science courses had the fewest students completing to the answer the completion survey. Seniors answered the survey more often than freshmen, while most students who answered expected a grade of “B.” The majority of the students who did answer the completion survey had never taken another online course before the course they had just finished online, with a significantly lower number of students who had taken only one other online course.

Students filling out the completion survey were provided a blank to fill in the number of weeks and hours working on online course. Some students did not answer, or entered nonquantitative values (ie. forever). Table 14 presents the mean number of weeks and hours students stated that they worked to complete the online course. Most students stated that they took between 12-20 weeks to complete their online course, mostly working at school to finish the class.

*Table 14. BCISD Completion Summary Means Hours working on course online*

| Item<br>Deviation                       | <i>N</i> | Mean | Std. |
|---|----------|------|------|
| Average hours working at school         | 296      | 5.70 | 5.76 |
| Avg. hours working before/ after school | 308      | 3.23 | 6.47 |
| Avg. hours working at home              | 309      | 2.83 | 4.4  |

Students were also asked eight Likert-style questions, with results to each question displayed in Table 15. Students responded that they did feel good about taking the online course, and managed their time better than average. Students taking the survey found it easy to access and navigate their online course, but said they did not necessarily enjoy the course before they took it online. Students felt the online presentation was adequate and did not feel they had technical difficulties with the online course. Students felt the teachers provided good and helpful feedback and would recommend their friends take an online course as well.

*Table 15* BCISD Completion Survey Likert-style question frequencies and means (N=332)

| Item                     | 1             | 2            | 3            | 4             | 5             | Mean | Std. |
|--------------------------|---------------|--------------|--------------|---------------|---------------|------|------|
| Deviation                |               |              |              |               |               |      |      |
| Experience               | 9<br>(2.7)    | 12<br>(3.6)  | 56<br>(16.8) | 91<br>(27.2)  | 164<br>(49.1) | 4.17 | 1.01 |
| Time Management          | 13<br>(3.9)   | 29<br>(8.7)  | 79<br>(23.8) | 97<br>(29.2)  | 114<br>(34.3) | 3.81 | 1.12 |
| Navigability             | 8<br>(2.4)    | 5<br>(1.5)   | 39<br>(11.7) | 96<br>(28.9)  | 184<br>(55.4) | 4.33 | .92  |
| Subject likeability      | 69<br>(20.8)  | 63<br>(19.0) | 98<br>(29.5) | 43<br>(13.0)  | 59<br>(17.8)  | 2.88 | 1.36 |
| Presentation             | 14<br>(4.2)   | 46<br>(13.9) | 91<br>(27.4) | 100<br>(30.1) | 81<br>(24.4)  | 3.57 | 1.13 |
| Technical difficulties   | 165<br>(49.7) | 73<br>(22.0) | 52<br>(15.7) | 24<br>(7.2)   | 18<br>(5.4)   | 1.97 | 1.20 |
| Teacher feedback         | 10<br>(3.1)   | 13<br>(4.1)  | 50<br>(15.7) | 88<br>(27.6)  | 158<br>(49.5) | 4.16 | 1.04 |
| Recommend Online Courses | 21<br>(6.3)   | 14<br>(4.2)  | 58<br>(17.5) | 80<br>(24.1)  | 159<br>(47.9) | 4.03 | 1.18 |

*\*Note- Survey scale: 1= strongly disagree, 2=disagree, 3= neutral, 4=agree, 5= strongly agree*

Correlations were calculated between the eight Likert-style questions including grade level, grade expected, and number of online courses taken previously (Table 16).

There was a high correlation discovered between students who felt good about taking

online courses and whether they would recommend online courses to their friends. There was also a medium correlation between students who felt good about taking an online course and time management, course navigability, subject likeability, and maintaining interest in the course based on presentation. Students who managed their time well showed a medium correlation with course navigability, maintaining interest based on presentation of course, as well as recommending an online course to friends. A medium correlation was shown between students who felt the online course was easy to access and navigate, as well as maintaining interest based on presentation of course and recommending an online course to friends. There were several low correlations found between students who expected higher grades in their online course and time management, subject likeability, maintaining interest based on presentation of course, and feeling teachers gave helpful feedback. Low correlations were also found between higher grade and time management, as well as lower grades feeling online courses were easy to access and navigate. There were no significant correlations found between Likert-style questions and number of online courses previously taken.

Table 16. Correlation and Significance (2-tailed)for BCISD Completion Survey (N=332)

|                     | Grade Lev | Grade Exp | #Courses | Course Exper | Time Manage | Course Navi | Sub Likeability | Course Inter | Tech Diff | Feedback | Recommend |
|---------------------|-----------|-----------|----------|--------------|-------------|-------------|-----------------|--------------|-----------|----------|-----------|
| Grade Level         | --        |           |          |              |             |             |                 |              |           |          |           |
| Grade Expected      | --        | --        |          |              |             |             |                 |              |           |          |           |
| #Courses Taken      | --        | --        | --       |              |             |             |                 |              |           |          |           |
| Course Experience   | --        | --        | --       | --           |             |             |                 |              |           |          |           |
| Time Manage         | -.132*    | .200**    | --       | .482**       | --          |             |                 |              |           |          |           |
| Course Navigation   | .135*     | --        | --       | .550**       | .394**      | --          |                 |              |           |          |           |
| Subject Likeability | --        | .147**    | --       | .237**       | .241**      | .250**      | --              |              |           |          |           |
| Course Interest     | --        | .122*     | --       | .508**       | .420**      | .457**      | .415**          | --           |           |          |           |
| Technical Diff      | --        | --        | --       | -.162**      | -.144**     | -.172**     | --              | --           | --        |          |           |
| Feedback            | --        | .136      | --       | .209**       | .264**      | .246**      | .184**          | .406**       | --        | --       |           |
| Recommend           | --        | .110*     | --       | .605**       | .388**      | .527**      | .177**          | .498**       | -.127*    | .332**   | --        |

\*Correlation is significant at the .05 level (2-tailed)      \*\*Correlation is significant at the .01 level (2-tailed)

Students were asked to respond to the statement, “If I take another course online, I hope that...” and answers selected are displayed in Table 17. Students were able to select more than one answer, but only those making one definitive choice were used as data in this study. The large majority of students stated that they hoped they would be scheduled in the Grad Lab during the regular school day. A low number of students entered their own desires in a blank text box available, or said they would change nothing.

*Table 17.* Students ( $N=334$ ) hoped if they took another online course...

| Answer                              | Frequency | %    |
|-------------------------------------|-----------|------|
| Grad Lab during the day             | 180       | 70.0 |
| Grad Lab open more frequently       | 24        | 9.3  |
| More material provided              | 14        | 5.4  |
| More time with teacher face to face | 23        | 8.9  |
| Other                               | 7         | 2.7  |
| Filled in: change nothing           | 9         | 3.5  |
| Missing                             | 77        |      |
| Total                               | 334       | 100  |

Students were also asked what could have assisted them in doing better in the course, results presented in Table 18. The majority of students stated that they could have done better if they had spent more time working on the online course at home. Of



the answer options, students selected the teacher giving helpful feedback at the lowest frequency, or stated nothing would have assisted them to do better.

*Table 18.* Students ( $N=334$ ) stated they could do better if.....

| Answer  | Frequency | %    |
|---|-----------|------|
| Teachers gave better feedback                     | 7         | 2.7  |
| Course was easier to navigate                     | 14        | 5.4  |
| Course content was more interesting               | 55        | 21.1 |
| I spent more time working at home                 | 130       | 49.7 |
| I was given more time at school to work on course | 34        | 13.0 |
| Other   | 13        | 5.0  |
| Filled in: change nothing                         | 8         | 3.1  |
| Missing   | 71        |      |
| Total   | 332       | 100% |

Students also had two open ended questions on the survey with a text box to respond. The first question asked students if they enjoyed taking courses in the Grad Lab (online courses) over regular courses and why. Answers were grouped and coded into categories. Most students stated that they enjoyed the online course because they felt it was easier. Students also said they felt the pacing of the online course better suited their learning than a regular course. Some students felt it took less time to complete the course when compared with regular courses, and was beneficial to recovering needed credits in order to graduate. A low number of students stated that they liked the convenience and could focus better in the Grad Lab.

The last question in the completion survey, asked students to openly respond to what they would change about their online course experience. Answers were grouped and coded into categories. Most students stated they would change nothing about the experience, or listed a unique answer in a text box available for them to describe their answer in the survey. Some students stated that they would have preferred to finish sooner if there were fewer assignments, tests, and quizzes. Students had many answers that focused more on their actions, rather than online course features. Students said they wished they would have put out more effort, managed their time better, or not failed the regular face-to-face class to begin with. Very few students mentioned needing more help with the online course than they received during their experience.

Students were able to convey many different thoughts about their online experience in the last section of the survey. Some students noted that they enjoyed the online learning experience because they felt they did not have to wait on other students to go at their own pace, or did not have the distractions of others students, which helped them focus. Some felt as if they got more assistance and advocacy from the Grad Lab teacher, or simply did not want to hassle a “typical teacher” for assistance. Small things such as being able to listen to music while they worked was noted by some students as making a difference. Some felt regular face-to-face teachers were too overwhelmed by their own classroom, and preferred the calmness of the Grad Lab environment without all the noise. Bilingual students noted the benefits of being able to utilize the Spanish version of the courses. Students said they felt the Grad Lab was a privilege, a chance to redeem themselves, and really helped those who needed to graduate.

### *Withdrawal Survey*

In keeping with research question three, what are the factors that increase or decrease the successful completion of credit recovery courses via online learning, the withdrawal survey taken by BCISD students of online courses can also be used to illustrate this point. Data from the withdrawal survey ( $N=1314$ ) were analyzed for various answers in the categories of course taken, person filling out the survey, grade level, administrative withdrawal reason, and student identified withdrawal reason. For the withdrawal survey, a Graduation Coach (93.7%) filled out the survey more often than the actual students. All grade levels were represented in the survey, with the majority being seniors and decreasing with frequency at each lower grade level.

Students listed the courses being withdrawn from and listed English courses most frequently, as well as math courses. Economic courses and elective courses had the fewest students withdrawing. In the survey, respondents were able to check more than one answer for some of the statements listed to questions. Most respondents only selected one answer, and those with one definitive answer were included in this study. Administrators filled in unique reasons, other than those listed on the survey, as the main cause for withdrawing a student. The second most often recorded reason given by an administrator was that a student was withdrawn due to moving to a new school or school district. Needing more time with a live teacher giving face-to-face instruction was the most frequent answer listed by students, when asked why they were withdrawing from the course. When asked to finish the statement, "I might have been able to complete the course if...", students mostly entered in unique reasons in the comment section. Managing my time and procrastinating less accounted for the second highest reason listed

when students were asked what might have caused them not to complete the course.

Students also had various answers they filled in for ways in which they would now gain credit for the course, listing a tradition face-to-face class secondly.

The last portion of the survey was available for open comments. Various reasons were expanded upon for withdrawal reasons. Students had reasons such as mistakenly being signed up for the class and already having credit, abandoning the course after starting, or were simply not actively working on the course. Students with discipline issues also accounted for a portion of withdrawals. Several students were placed in correctional custody or simply decided to obtain a GED.

## **Summary**

This study revealed the frequencies of students taking various online credit recovery courses, the grade levels at which they took the courses, and whether students failed to complete, dropped, or passed the online course. Completion and withdrawal surveys also illustrated students' attitudes toward their online learning experience, after completing or not completing the online course. With the results above, this study hopes to reveal whether online learning is effective as a credit recovery tool for at-risk students, if at-risk students are more successful in certain online learning courses or at particular grade levels, and what factors increase or decrease the successful completion of online credit recovery courses. The following chapter presents the findings for each set of results obtained, divided into sections by each research question.

## CHAPTER FIVE

### CONCLUSIONS, RECOMMENDATIONS AND SUMMARY

This study was designed to determine the current state of online learning opportunities via credit recovery, available to at-risk students, in order for them to complete their high school diploma. As stated by Aurora (2009), education is changing so that students can be more actively engaged, and suited to many different types of learning styles in order to increase successful learning. Data from BCISD was evaluated for completion rates of online courses taken by students attempting to regain credits in courses in which they had previously been unsuccessful. Data from StateVSN was evaluated for completion rates of online courses over all, whether a student took credit recovery or original credit courses. By taking online classes in any form, students who were successful at online credit recovery courses would in turn, be that much more likely to complete a high school diploma and not drop out of school. Insightful data were also obtained from a BCISD completion and withdrawal survey, describing such things as student online experience and reasons for success or nonsuccess in online courses. All data considered, a bigger picture of the online credit recovery student world is revealed.

#### **Findings for Research Question #1**

For the first research question, **is online learning effective as a credit recovery tool for at-risk students, as indicated by successful completion of online courses**, completion data were analyzed for both BCISD and StateVSN. There are several possibilities for the very high BCISD completion rate of online courses of 92.2%. First, BCISD did not record students who dropped online courses, which could have affected

the completion rate percentages. For students having previously failed a course, it is unlikely that these same students now had such a high rate of success, but not impossible. However, students should in fact have an increase in success, simply because they have experienced the subject material before, and the online course was a second chance to complete the class. It is not always that a student is unsuccessful because he or she did not understand the material, but may have multiple reasons for the failure. Looking at the online course as a second chance for some students, they were able to complete the class to gain credit. Students could have been more successful at online learning due to Grad Lab Coaches and the encouragement they provided. Berge (2001) describes “co-explorer and co-discoverer” in relation to students and teachers of online learning, making this type of learning more successful for some students in comparison with a traditional classroom. Students could have found the material easier when presented in the online format. In the online course, students are able to move through the course at their own pace, and also had the ability to access the course at any time, in comparison to a face-to-face class at a particular hour of each day of the week. Certainly, many students used the online course as a last chance effort in order to gain the needed credits to graduate.

The StateVSN completion rate was considerably lower (47.9%) when compared to the BCISD completion rate. While one program appears to have much more success based on completion rates, there are considerable differences in the two online providers. The StateVSN provides online courses that can be utilized by those needing to recover credits, but also to those taking the course for original credit. Many students taking StateVSN took courses for original credit, so a direct comparison to credit recovery

students would not be accurate. Students taking original credit courses would not have witnessed the course material previously and students may not be as successful. Probably the biggest difference in the data would be a result of keeping track of the online courses dropped. While neither program required students to pay for courses, the high drop rate of StateVSN caused a significant decline in completion rates when added into the total. Students taking courses through StateVSN also did not have a Grad Lab in which to work on their course during the school day. Many students don't have the self-discipline needed to complete online courses independently, without the assistance provided in an environment such as the Grad Lab. Self-pacing in this case could actually be detrimental, leading to procrastination. As noted by Clark, Lewis, Oyer and Schreiber (2002), students most successful in virtual schools include highly motivated, self-disciplined, and independent learners with good abilities in reading, writing, and technology skills. Students need buy-in and accountability to stay focused in order to complete online courses. Many students also took electives, more than likely not needed for graduation (i.e. driver's ed). Students enrolled in elective courses through the StateVSN have no apparent repercussions for dropping courses. While electives are part of the graduation plan, these courses were most likely taken for original credit, not credit recovery courses.

Overall, the number of students completing online courses to complete a high school diploma is probably somewhere in between a high (BCISD at 92.2%) and low (StateVSN of 47.9%) completion rate, based on the data analyzed. Estimating from the data obtained, a moderate completion rate is probably the more likely conclusion. Edmunds (1982) stated that in order for a school to be effective, students don't all have to perform to a particular level, although an equivalent number of the high and low groups

must be brought to a “minimum mastery.” Students having moderate success at completing online courses for credit, is in fact a success. While each program involved students possibly taking courses at different levels, both programs did award credits that could be used toward graduation. With this knowledge, the researcher believes online courses are in fact effective for at-risk students to utilize, in order to complete a high school diploma.

### **Findings for Research Question #2**

For the second research question, **are at-risk students more successful in certain online learning courses or at particular grade levels**, frequencies of courses taken and at which grade levels were analyzed, and cross tabulations for completion (pass/fail) were calculated. Online courses most frequently taken through BCISD included mostly core courses, as those are needed for graduation. Foreign language classes were also taken in order to graduate with the recommended diploma, or possibly as a required elective. Only a few electives, speech and health were taken, as these are often fairly easy classes to obtain in a regular classroom but still needed for graduation. When looking at grade level frequency, seniors took the most online courses because there is a greater sense of urgency to graduate on time. Freshmen are less likely to take credit recovery classes, as there is significant time to make up courses before the onset of graduation. Sophomores may have an increased rate of taking credit recovery courses, since freshmen typically have a high failure rate and need to make up classes. Juniors to a lesser degree, need courses for graduation.



Cross tabulations were calculated for online courses taken and completion (pass/fail) rates. The highest failure rates were shown within the first semester of history courses. The researcher can only deduce that this particular online course may be significantly harder than some of the other courses available, or students taking this class were simply less likely to succeed. The lowest failures rate fell within the English second semester course, government, and electives, possibly since these classes are not as rigorous as some of the others. The highest completion/pass rates fell within the first semester of English courses possibly because these courses often review previous year's material and could have been easier than some of the other courses. The lowest passing rate fell within courses that also had the lowest number of students taking the classes (economics, electives, speech and health), so there was less opportunity for success.

Cross tabulations were also calculated for grade levels and pass/fail completion rates. This proved to have quite expected results, as to what would be expected at each grade level. Highest completion/pass rates were seen at the senior level, as a result of seniors sensing the most urgency to graduate. The lowest passing rates were seen by freshmen, as there is little sense of urgency to graduate, more time to pick up credits elsewhere, and the fewest number of students taking online courses. Sophomores had the highest non-completion/failures rates, as sophomores are still maturing and figuring out what it is going to take in order to be successful. Juniors had the lowest failure rates, as students begin to realize that they will need to gain credits if they plan on completing a high school diploma.

*StateVSN*

Online courses most frequently taken through StateVSN included elective classes simply because these are easier classes than core classes to take online. Courses through StateVSN are currently subsidized by the state, and most students with moderate diligence could pass electives with a grade of 70 or better. Students also have the eternal motivation of wanting to get a driver's license, which lends itself to students signing up for a driver's education elective. Government and health courses were also taken more frequently than other online courses, possibly because the content is not as difficult. Math, science, and foreign language had the lowest number of online students because these are more rigorous courses to take without a face-to-face instructor. Core classes take much more self-discipline to stay focused on the content material than elective courses.

A large majority of students taking online courses through StateVSN were juniors (44.1%). Eleventh graders took more online courses due to the fact that they possibly have many core classes completed leaving electives yet to complete. Also, the newness of StateVSN may contribute to the increase in juniors taking classes. Juniors can also take driver's education and are of the age to start driving. Sophomores had the second highest number of students, as this grade level may need to recover more credits from their freshmen year. Freshmen have a low number, as graduation seems way off in the distance for those students.

More students take online courses in the summer through StateVSN because classes are free, compared with the considerable cost districts charge students for summer school. Students have more free time and take advantage of time and cost factors.

Students may also realize the necessity of needing to recover credits lost during the school year. More student take courses in the spring, probably needing to recover credits lost in the fall. Students may also feel they have a sense of their current course load and sign up during the spring at a higher rate than the fall. Word-of-mouth from other students taking online courses in the fall, may influence more students to take online courses during the spring semester.

Students completed/passed elective courses at a higher rate than core classes. Of the core classes taken, the first semester of English online courses had the highest failure/non-completion rates, with the first semester of science courses having the lowest failure/non-completion rates. This was surprising considering the rigor of science classes and online format. Students also dropped fewer science classes, possibly out of necessity for the credit. Even though electives had the highest completion rates for StateVSN, these non-core courses also had the highest number of students drop the courses. This may seem like a contradiction, although electives accounted for 48.7% of students initially enrolled in StateVSN courses. Many students may have tried to manage the online course and found it to be more challenging than they had thought. Online government classes also had a high rate of students dropping, probably for similar reasons as students dropping elective courses. Completion rates were highest for electives, as well as government courses. These courses had the greatest number of students and had more opportunities for success. Second semester science courses proved to have the lowest completion rates of the course classes, possibly due to rigor.

The last cross tabulation was calculated on StateVSN students, examining grade level and pass/fail rates. Junior students had the highest failure/non-completion, drop,

and completion rates but were also the most numerous in those students taking online courses through StateVSN. Seniors had the lowest rates of non-completion due to the need to obtain the credit for graduation and last chance factor. Freshmen students had the lowest drop and completion rates. This is most likely a factor of freshmen having the lowest number of students taking online courses through StateVSN.

Overall, students have an equivalent or better performance in well designed online learning courses when compared with high quality classroom courses (Cavanaugh, 2009). As with all school courses, some are easier while others are more difficult. According to Cavanaugh (2001), findings suggest that a hybrid setting that involves some online, combined with face-to-face methods will have greater retention and outcomes than purely online courses. Taking the hybrid approach may be the route to take in public high school education, and a transition for those students not fully ready to be emersed into online learning.

### **Findings for Research Question #3**

A completion and withdrawal survey taken by BCISD students of online courses was used to reveal **what factors increase or decrease the successful completion of credit recovery courses via online learning**. Within the completion survey, students mostly took core classes such as English, because those are imperative for the minimum high school diploma plan. Foreign language courses were also taken by students attempting to recover credits, since those are needed to graduate under the recommended high school diploma plan. Due to the fact that more seniors took online courses, they answered the survey more frequently than freshmen. Overall, most students stated that

they expected a grade of “B,” as to give a moderate estimation of their work, trying not to estimate too high or low. It would make sense that the majority of the students had never taken another online course before, as the online credit recovery is a very new format and most students traditionally gain credits via the classroom. Only a few students had taken one other online course, in keeping with the previous thought.

Students spent an average of 12-20 weeks to complete their online course which would just about be the equivalent of a semester worth of a face-to-face class, depending on the student’s pace. The researcher feels students often have time during school to access a computer, so working mostly at school to finish an online class would be a good use of time. Students often have many distractions at home, possibly even reasons for not passing the course initially. Students spent a little over three hours a week working before and after school, an appropriate length of time to be successful in a course at 12-20 weeks.

Students responded overall that they felt good about taking the online course, which would be reflective of the fact that they completed the course. This is also seen in other programs, such as NCVPS where students generally rate online courses as good to excellent, with a mere ten percent reporting courses as poor (Oliver et al., 2009). As in the NCVPS study, disciplined, self-motivated students who managed their time well, are more likely to be successful in online courses. Self-discipline can be an issue for at-risk students who have the same type of issues within a traditional classroom (Oliver et al., 2009). Students taking the survey found it easy to access and navigate their online course, also indicative of accelerated students. Roblyer and Marshall (2002), found that students who possess strong technical skills are more likely to pass online courses.

Students taking the online courses stated that they did not necessarily enjoy the online course before they took it, possibly because they failed it initially or have always had trouble in the subject. A high school diploma incorporates all subjects, so there are bound to be courses that are not a student's favorite. Student rated the online presentation as adequate, with low technical difficulties with the online course which contributed to the successful completion of the class. As seen in NCVPS, students are more successful when teachers provide useful feedback. Many online students actually need more interaction and assistance for the online course to be fully understood and to actually complete the course (Oliver et al., 2009). Ultimately, having an at-risk student recommend that their friends take an online course speaks a great deal about the effectiveness of an online program. Students who struggle are tough customers in schools, and they probably have insight into how to help others like themselves.

Correlations calculated between the Likert-style questions uncovered some notable connections. A high correlation was revealed between whether a student felt good about taking online courses and whether they would recommend online courses to their friends. In other words, a positive learning experience with online courses could take a student at-risk of not completing school, and turn them into an advocate of learning, albeit a different format of learning, possibly even enough for them to finish their high school diploma. A medium correlation between students who felt good about taking an online course and time management, course navigability, subject likeability, and maintaining interest in the course based on presentation, was also shown to be the case in this study. Again, an encouraging occurrence with online learning may be enough

to facilitate a sense of success that assists an at-risk student to gain the last of their needed high school credits for graduation.

When students were asked to respond to the statement, “If I take another course online, I hope that...” most online learners stated that they hoped they would be scheduled in the Grad Lab during the regular school day. Students prominently replied in regards to this statement, proving the worthiness of the Graduation Coach’s assistance, and benefits of having a structured environment in which to work on their online courses. Students who were asked, “what could have assisted them in doing better in the course”, stated that they could have done better if they had spent more time working on the online course at home. The answer was informative, in that students needed assistance and a place to work, yet also said they wished they had more focus in their home environment as well. Either students did not have the means to work at home, had trouble accessing the course at home, or did not have enough self-discipline to do more work at home.

When given the opportunity to answer open ended questions on the survey, provocative responses were recorded. When asked if they enjoyed taking courses in the Grad Lab (online courses) over regular courses, the majority of students replied that they enjoyed the online course because they felt it was simply easier. Easiness of the course may be a factor of a second time around in the class, but learners also said they felt the pacing of the online course better suited their learning when compared to a traditional, face-to-face course. When time is of the essence to graduate, less time to complete the course was paramount to recovering needed credits in order to graduate. One of the most often cited benefits of online learning is the convenience online courses provide.

The last open-ended question in the completion survey asked students to make a statement in regards to what they would change about their online course experience. Most students stated they would change nothing about the experience, which could speak to the fact that the online experience was affirmative. Students gave expected responses, such as to finish sooner by having less assignments, tests, and quizzes. As noted in the NCVPS study, it is important in an online course that assessment be authentic, with a practical amount of higher level tasks allowing for reflection of the course content (Oliver et al., 2009). At-risk students have had multiple failures in many cases and just want to be done. Although, these students had many retorts that actually focused more on their actions, rather than online course features. Educators often forget that these students do feel responsibility for their actions, or lack thereof, but indeed do not have good feelings about their failures that may have detrimental effects on their education. Students said they wish they would have put out more effort, and managed their time better. Multiple students stated they wished they had simply not failed the first, traditional class to begin with. Students do want to succeed in their education, but have many factors that play into their accomplishments.

Students brought to light many aspects of their online journey in the last section of the survey. Students noted that they liked the fact that they did not have to wait on other students to move on at their own pace, which can be very frustrating for those who work at a faster rate. Down time can lead to discipline problems within a traditional classroom for children who finish with their class work and begin to distract others still working. Being able to move through the online course as needed also assists students in staying focused on the subject enough to complete the credit. Interesting and insightful



comments were made, in regard to getting help during their online experience. Students needing extra assistance stated that they felt they were bothering most teachers in a classroom for help, while this was not the case in the Grad Lab. Students had a sense that the Grad Lab Coaches were there to help them complete their online course, and were almost working as a team, instead of an “us against them” attitude. Some felt regular, face-to-face teachers were too overwhelmed by their own classroom, and preferred the calmness of the Grad Lab environment without all the noise. Since students were mostly quietly engaged on the computer, there was less distraction to get off task. Even small privileges such as being able to listen to music while they worked was noted by some students, almost as if they felt like they were being trusted more to get a job done and they were going to make sure to follow through. Bilingual students noted the added benefits of being able to utilize the Spanish version of the online courses. One of the benefits of the Apex online courseware, which was utilized in the BCISD Grad Lab, is that content is available in three different levels, with audio and text materials available to students as needed. Being able to learn a subject in your native language would make almost any subject easier for a student to be successful. Students taking the online courses said that they felt the Grad Lab was a privilege, a chance to redeem themselves, and really helped those who needed to graduate. Overall, students who completed the online courses had a positive learning experience that may mean the difference in graduating, instead of dropping out.

#### *Withdrawal Survey*

Unfortunately, some students were not successful in online learning and were withdrawn from the courses. Most students withdrawing were seniors (decreasing with

frequency at each lower grade level), although more seniors were initially enrolled in online courses too. Online English and math classes posed the most difficulty for the students, noting that those are some of the more problematic classes to take in general. Economic and elective courses had the fewest students withdrawing, which is potentially reflective of the degree of online difficulty. Needing more time with a live teacher providing face-to-face instruction was the most frequent answer listed by students, when asked why they were withdrawing from the course. Interestingly, students also responded to the completion survey stating that they liked not having to “hassle” a teacher for assistance. Two possibilities come to mind, with withdrawing students perhaps needing more assistance than more successful (completing) students, or students in general want and need structure and guidance, more so than they will admit. Students gave many unique reasons in the comment section, when asked to finish the statement, “I might have been able to complete the course if...”. Procrastination and better time management was listed as the second highest reason. It has been shown that students without time management have a lower chance of being successful in online courses. It has been shown that a learner agreement helps students understand the responsibility, and asks for a front-end commitment that provides clarity before ever beginning an online course (Shank, 2007). There may also be a need for schools to necessitate an online course orientation for students so that they may witness sample activities to give them an idea of the requirements, as well as a chance to ask questions up front (Ko & Rossen, 2004). Students also had various answers they filled in for ways in which they would now gain credit for the course, listing a tradition face-to-face class secondly. It is

possible that students try a new format, to realize what they are familiar with actually works in many cases.

In the last portion of the withdrawal survey, students expanded upon their withdrawal reasons. Not all students failed to complete an online course through abandonment or not actively working on the course. Some students should never have been signed up for the course because they already had credit. This would be an administrative error, and is more likely to occur with a student that has failed multiple courses. Students with discipline issues also accounted for a portion of withdrawals, and simply could not complete the online course after being placed in correctional custody. Hopefully, with proper counseling and online opportunities, students will see that completing a high school diploma far out weighs the option of a GED.

## **Conclusions**

Online learning is effective to help students regain credit needed for a diploma and graduation. Certain core online courses tend to be more difficult online, while some elective courses are easier to complete online. Students in higher grade levels did better in online courses, possibly due to maturity or necessity of needed credit for graduation. Many students used online learning as a second chance to finally gain credit, liking the pacing and different environment when compared to a traditional classroom. Online learning can be an effective educational tool to lower the drop out rate in Texas. More personalized learning programs can be established through online learning. Overall, online learning has the potential to improve the equity of education for all students.

## **Recommendations for Further Research**

Both the completion and withdrawal survey given to BCISD students revealed valuable information about the online learning experience for students. Completion rates were also insightful, for both credit recovery and original credit online course takers. The following recommendations would be advised for further research:

- All online providers should develop a standardized survey to be provided to students of online courses. By doing so, online courses could be evaluated to improve the chances of successful completion by students.
- Using information gathered from online students, course providers could tailor their courses to better serve students.
- A short, Likert-style, pre- and post survey would be most effective for students completing online courses.
- For withdrawals, information may be more useful in an open-ended format so that students could include details for the students' reasons for withdrawing. Students completing the survey would be most effective, with a different administrative, withdrawal survey for online course monitors.
- An interesting study would be the completion rate difference in a student group provided a learner agreement and online course orientation, versus a similar student group not provided with that assistance.
- More research could certainly be conducted and data gathered for different school districts in Texas, and across the United States for effective practices.
- Online learning in alternative behavior placements may also provide a needed avenue for students to complete their high school diploma. In agreement with

Fulton (2002), online education may be the solution for those students with behavior issues, unable to be successful in a traditional classroom.

### **Recommendations to Improve Practice**

Many recommendations can be made in order to improve the practice of online learning for at-risk students. As online learning is a fairly new format in education, many aspects stand to be improved. The following are recommendations to improve the practice of online learning for secondary education:

- All schools providing online courses should keep track of course drops, as a factor of non-completion. Allowing students to begin an online course, and ultimately drop the course without record is not an educationally sound practice.
- Based on student responses and completion rates, it does appear that having a computer/Grad Lab setting in which students can work on their online courses may also affect the outcome. Students may stay more focused at school, in an environment that they are familiar with the expectations in comparison to unstructured time at home.
- Allowing students time within their everyday class schedule to work online may be a valuable way for students to move at their own pace through courses.
- All students, but especially students seeking credit recovery, need to sign a learner agreement and go through an online course orientation before beginning any online courses. An agreement and orientation provides students with knowledge up front, and may provide the first steps in a student completing the online course.

- Taking stock in student suggestions for online courses will also help to make the courses more user oriented.

### **Implications for Policy**

With the newness of the online learning format, this study revealed several implications for policy. The following are implications that should be considered in relation to online learning for secondary education:

- Due to the current educational budget shortfalls in Texas, it is of the opinion of the researcher that StateVSN should charge a fee for dropped classes or charge a deposit to take courses upfront. Students currently drop StateVSN courses at extremely high rates since there are no repercussions and low accountability for dropping online courses.
- The creation of a “degree of online difficulty” factor could be developed for online courses, with something as simple as a 1-5 rating (1 being easiest, 5 being hardest). Ratings would at least let students taking online courses for original credit, know which course would be the easier to complete. This is important to assist students in gradually adapting to the online format and the responsibilities needed to successfully complete an online course.
- There should also be a standardized, differentiation between original and remedial/credit recovery courses, whether taken online or face-to-face. Whether a student has previously seen the course material does seem to influence the outcome of a course. State Course Identification Numbers should be coded for remedial or original credit online courses.

- Schools should work to offer students a class period during the day and computer access in which to work on their online course during the school day.
- Any online provider should be required to submit a student completion rate assessment to the State Education Agency as a factor of improvement from year to year.

## **Conclusion**

Online learning is effective as a credit recovery tool for at-risk students, as indicated by successful completion of online courses. Students complete online courses at moderate rates, and students are more successful in certain online learning courses and at higher grade levels. Factors that increase successful completion of credit recovery courses include having the time and a place to work online during school hours, as well as allowing students to work at their own pace. A positive experience with online learning may be the turning point in motivating a student to complete their high school diploma. At-risk students do need assistance to help them manage their time and focus throughout an online course. Online learning may not only reduce drop out rates in the State of Texas, but can serve to improve public school education overall for students everywhere.

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## APPENDICES

## APPENDIX A: Human Subjects Approval



U N I V E R S I T Y of H O U S T O N

COMMITTEES FOR THE PROTECTION OF HUMAN SUBJECTS

January 5, 2011

Ms. Kellie Yoh  
c/o Dr. Allen R. Warner  
Curriculum and Instruction

Dear Ms. Yoh:

Based upon your request for exempt status, an administrative review of your research proposal entitled "Online Learning Opportunities for At Risk Students to Complete a High School Diploma" was conducted on November 22, 2010.

At that time, your request for exemption under **category 4** was approved pending modification of your proposed procedures/documents.

The changes you have made adequately respond to the identified contingencies. As long as you continue using procedures described in this project, you do not have to reapply for review.\* Any modification of this approved protocol will require review and further approval. Please contact me to ascertain the appropriate mechanism.

If you have any questions, please contact Alicia Vargas at (713) 743-9215.

Sincerely yours,

A handwritten signature in cursive script that reads "Enrique Valdez, Jr.".

Enrique Valdez, Jr.  
Director, Research Compliance

\*Approvals for exempt protocols will be valid for 5 years beyond the approval date. Approval for this project will expire **November 1, 2015**. If the project is completed prior to this date, a final report should be filed to close the protocol. If the project will continue after this date, you will need to reapply for approval if you wish to avoid an interruption of your data collection.

Protocol Number: 11144-EX

## APPENDIX B: BCISD Research Approval Letter



### HOUSTON INDEPENDENT SCHOOL DISTRICT

HATTIE MAE WHITE EDUCATIONAL SUPPORT CENTER  
4400 WEST 18th STREET • HOUSTON, TEXAS 77092-8501

**TERRY B. GRIER, Ed.D.**  
*Superintendent of Schools*

**Carla J. Stevens**  
*Assistant Superintendent*  
*Research and Accountability Department*  
Tel: 713-556-6700 • Fax: 713-556-6730

December 16, 2010

Kellie Yoh  
2406 Blue Water Bay Drive  
Katy, Texas 77494

Dear Ms. Yoh:

The Houston Independent School District (HISD) is pleased to approve the research study titled "Online Learning Opportunities for At Risk Students to Complete a High School Diploma." This study will investigate completion rates of online courses and factors associated with successful completion of online courses. The research is being conducted in partial fulfillment of doctoral degree requirements at the University of Houston. The projected date of study completion is May 1, 2011.

Approval to conduct the study in HISD is contingent on your meeting the following conditions:

- The study population is limited to archival survey data gathered from students taking courses through the HISD Virtual Schools. The survey documents the experiences of approximately 340 students who participated in the program over the past year. The survey data will be provided to the researcher by the manager of the HISD Virtual Schools Department.
- The researcher is responsible for data collection. A fee may be assessed if the HISD Department of Research and Accountability assists in the data collection process.
- This study does not interfere with the District's instructional/testing program.
- The researcher must follow the guidelines of HISD and the University of Houston regarding the protection of human subjects and confidentiality of data. The HISD signed letter of agreement and the Institutional Review Board (IRB) approval letter must be submitted prior to initiating the study.
- While the Institutional Review Board (IRB) of the university/organization is responsible for oversight of the study, the HISD Department of Research and Accountability will also monitor the study to ensure compliance to ethical conduct guidelines established by the Department of Health and Human Services, Office for Human Research Protection (OHRP) as well as the disclosure of student records outlined in Family Educational Rights and Privacy Act (FERPA).
- Data will only be reported in statistical summaries that preclude the identification of the district or any principal/school participating in the study.
- In order to eliminate potential risks to study participants, the reporting of proposed changes in research activities must be promptly submitted to the HISD Department of Research and Accountability for approval prior to implementing changes. Non compliance to this guideline could impact the approval of future research studies in HISD.
- The final report must be submitted to the HISD Department of Research and Accountability within 30 days of completion.

Any other changes or modifications to the current proposal must be submitted to the Department of Research and Accountability for approval. Should you need additional information or have any questions concerning the process, please call (713) 556-6700.

Sincerely,

Carla Stevens

CS: vh  
cc: Michele Pola  
Aaron Spence

Martha Salazar-Zamora

Mark Grubb

Jeanine Wilson



## APPENDIX C: TEA Public Information Request



### Public Information Request Form

**Requestor Full Name:** Kellie June Yoh  
**Organization:** University of Houston, doctoral student in Educational Leadership/ Fort Bend ISD  
**Street Address:** 11111 Harlem Rd  
**City/State/Zip:** Richmond, TX 77406  
**Telephone Number:** 281.634.7015  
**Cell Number:** 832.766.3731  
**Fax Number:** 281.634.7017  
**Email Address:** kellie.yoh@fortbend.k12.tx.us  
**Detailed Description of your Request:** I am working on a doctoral dissertation and I am in looking for data regarding completion rates for online courses, specifically for at risk students. I am only looking for anonymous data, prior to the Fall of 2010.

**\*NOTE:** Certain exceptions to disclosure exist under the Texas Open Records Act to protect against the disclosure of confidential or privileged information. If it appears that an exception to disclosure exists, an opinion will be sought from the Office of Attorney General regarding your request.

**You may submit the form by mail, fax, e-mail or in person:**

Attn: Public Information Request  
 Texas Education Agency  
 William B. Travis Building  
 1701 N. Congress Avenue  
 Austin, TX 78701-1494.  
 Tel: (512) 475-3697  
 Fax: (512) 475-3665  
 Email [pir@tea.state.tx.us](mailto:pir@tea.state.tx.us)

**MEDIA:** Submit requests directly to the Communications Division:

Tel: (512) 463-7256  
 Fax: (512) 463-9838  
 Email: [media-pir@tea.state.tx.us](mailto:media-pir@tea.state.tx.us)

**LEGISLATORS:** Submit requests directly to the Office of Governmental Relations:

Tel: (512) 463-9734  
 Fax: (512) 463-9838  
 Email: [lisa.hughes@tea.state.tx.us](mailto:lisa.hughes@tea.state.tx.us)

**APPENDIX D: TEA Research Approval Email**

**From:** Carrasquillo, Pablo [<mailto:Pablo.Carrasquillo@tea.state.tx.us>]

**Sent:** Friday, December 17, 2010 11:16 AM

**To:** Yoh, Kellie

**Subject:** PIR 14421

Ms. Yoh,

Your request for information to support your research application titled “**Online Learning Opportunities for At Risk Students to Complete a High School Diploma**” (application no. 2010-26), has been approved; upon release, you are welcome to use the data appropriately. You may consider this e-mail as your approval letter.

Pablo Carrasquillo

Public Information Coordination Office

## APPENDIX E: BCISD Online Course Completion Survey

### Course Completion Form - APEX Online Credit Recovery Initiative

Congratulations on completing a course in the Grad Lab! Please complete the following form, and feel free to answer the questions honestly and truthfully about your experiences so we can improve our program.

**\* Required**

Please enter your full name in the following format - Firstname Lastname \*

Please enter your full Student ID \*

Please enter the name of the course you have completed \* Don't forget to add "A" or "B" at the end of the course name to let us know which semester you completed

How many weeks did it take you to complete this course \* Just take your best guess if you don't exactly know

How many hours a week on average did you spend working on your course during school? \*

How many hours a week on average did you spend working on your course before or after school while on campus? \*

How many hours a week on average did you spend working on your course from home, or anywhere else except on campus? \*

Grade Level \* Please enter the grade level you are currently classified as

- ☐ 9th grade
- ☐ 10th grade
- ☐ 11th grade
- ☐ 12th grade

I expect to get a final grade in this class of a(n) \* If you know your grade already, enter it below

- ☐ A
- ☐ B
- ☐ C
- ☐ D
- ☐ F

- ☐ I have no idea

The number of online courses I have taken before this course is \*

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ More than 3
- ☐ This was my first online course

I feel good about taking online courses \*

|                     |                       |                       |                       |                       |                       |                  |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
|                     | 1                     | 2                     | 3                     | 4                     | 5                     |                  |
| I Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | I Strongly Agree |

I feel that I manage my time well \*

|                     |                       |                       |                       |                       |                       |                  |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
|                     | 1                     | 2                     | 3                     | 4                     | 5                     |                  |
| I Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | I Strongly Agree |

I found it easy to access and navigate my course \*

|                     |                       |                       |                       |                       |                       |                  |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
|                     | 1                     | 2                     | 3                     | 4                     | 5                     |                  |
| I Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | I Strongly Agree |

I liked this subject before I took the course \*

|                     |                       |                       |                       |                       |                       |                  |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
|                     | 1                     | 2                     | 3                     | 4                     | 5                     |                  |
| I Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | I Strongly Agree |

I felt that the way the material was presented kept me interested \*

|                     |                       |                       |                       |                       |                       |                  |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
|                     | 1                     | 2                     | 3                     | 4                     | 5                     |                  |
| I Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | I Strongly Agree |

I had technical difficulties that caused me some problems \*

|                     |                       |                       |                       |                       |                       |                  |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
|                     | 1                     | 2                     | 3                     | 4                     | 5                     |                  |
| I Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | I Strongly Agree |

The teachers who graded my Unit Exams gave me good and helpful feedback These were written exams at the end of each unit you turned in on paper. If you didn't do this in your course, leave this blank.

|                     |                       |                       |                       |                       |                       |                  |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
|                     | 1                     | 2                     | 3                     | 4                     | 5                     |                  |
| I Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | I Strongly Agree |

I would take another online course and would recommend taking online courses to my friends \*

|   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

|                     |                       |                       |                       |                       |                       |                  |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
| I Strongly Disagree | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | I Strongly Agree |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|

If I take another online course, I hope that: \* Check all that apply

- ☐ I am scheduled to be in the Grad Lab during the regular school day
- ☐ The Grad Lab is open more frequently before or after school
- ☐ More materials are provided in addition to just what is in the course
- ☐ I have more time with a teacher to explain hard concepts to me face to face
- ☐ Other:

I could have done better if \* Check all that apply

- ☐ My teachers gave me better feedback on Unit Exams
- ☐ The course was easier to navigate
- ☐ The course content was more interesting
- ☐ I spent more time working on courses at home
- ☐ I was given more time during the school day to work on my course
- ☐ Other:

If you liked taking courses in the Grad Lab over regular courses, let us know why. You can also add any other comments you think will help us improve this program

If you could change just one thing about your experience, what would it be?

|                                       |                      |
|---------------------------------------|----------------------|
| 0                                     | <input type="text"/> |
| <input type="button" value="Submit"/> |                      |

## APPENDIX F: BCISD Online Course Withdrawal Survey

### Student Withdrawal Request Form - APEX Online Credit Recovery Initiative

Every student who wishes to withdraw from the APEX Online Credit Recovery program must complete and submit an electronic "Withdrawal Request". Only if a student is not available should this form be completed by someone else.

**\* Required**

I am a: \*

- ☐ Student
- ☐ Graduation Goach / Campus Monitor
- ☐ School Counselor / AP
- ☐ Other:

### Student Information

Student ID \* Please enter your Student ID

Current School \* School you were enrolled in while taking this course.

Grade Level \* Please enter the grade level you are classified as

- ☐ 9th Grade
- ☐ 10th Grade
- ☐ 11th Grade
- ☐ 12th Grade

### Program Administration Section

For program administrators to complete. Students may skip this section and move on to the Course Section.

The student was withdrawn for the following administrative reasons: Please check all that apply

- ☐ Student is a "No Show" and did not enter the course
- ☐ Student was enrolled but not eligible to take a Credit Recovery course
- ☐ Student withdrawn to reduce course load
- ☐ Student was placed in the wrong class
- ☐ Student has moved to a new school or district
- ☐ Other:

## Course Section

Please complete this section with information on your course.

Course Name \* Course from which you are being withdrawn. (ex. English 4B)

I am withdrawing from this course because... Please check all that apply

- ☐ I was put in the wrong class
- ☐ The course material has become too hard for me
- ☐ I am not very good with computers and had trouble taking the course
- ☐ Personal issues or illness prevented me from completing the course
- ☐ I did not have enough time to complete the course
- ☐ I am moving to another school or district
- ☐ I need more time with a live teacher giving face to face instruction
- ☐ Another reason I have listed below in Additional Comments

I might have been able to complete the course if... Please check all that apply

- ☐ The course was easier to navigate
- ☐ I managed my time better and procrastinated less
- ☐ I did not have technical issues that kept me from completing the course
- ☐ I understood the subject matter better
- ☐ I had asked for more help
- ☐ Another reason I have listed below in Additional Comments

In order to gain credit for this course I will: Please select the most appropriate answer below

- ☐ Complete the course in a regular classroom
- ☐ Complete the course through a Credit By Exam
- ☐ Complete the course online at another time
- ☐ I do not know
- ☐ Another option I have listed below in Additional Comments

Additional Comments Is there anything else you would like to add about the reasons why you are withdrawing from this course? If you have any other reasons not listed above or would like to give

more details, please explain here.



Student Signature \* By typing your full name below you are signing the withdrawal request. If completed by a program administrator, please type the student's full name.