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Failing the Failed: A Treatise on the Need for a Research Based Pedagogical Approach to Credit Recovery

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FAILING THE FAILED: A TREATISE ON THE NEED FOR A RESEARCH BASED
PEDAGOGICAL APPROACH TO CREDIT RECOVERY

by

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ABSTRACT

The purpose of this dissertation in practice is to address the problem of online credit recovery. Although online enrollments have skyrocketed in recent years and all preliminary research indicates a large percentage of those enrollments are from students seeking credit recovery, much of the curriculum currently being offered is not research-based. Following a literature review focused on the history of credit recovery as well as successful current methods, we designed CRIT (Credit Recovery Instructional Treatment), a research-based approach to curriculum design for credit recovery. CRIT is a standards based curriculum relying on criterion based assessments. This approach was then applied in the creation of specific curriculum for English 4 credit recovery and as a general approach for all subjects. A step by step evaluation plan for current and proposed approaches for credit recovery was then defined. Additionally, we provide a detailed implementation strategy specific to our organization but easily retrofitted for other organizations. We focus on the organization of Florida Virtual School (FLVS), a state run K-12 virtual school run as a special school district in Florida because it is a familiar organization; however, the model and results may be generalizable for online or traditional education.

We dedicate this dissertation in practice to all those who have failed once but are hopeful and willing to work hard and try, try again. For all who need or once needed a second chance at success, this dissertation in practice is for you.

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Elise Anderson Smith

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Kelly Scott

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LIST OF ACRONYMS

AEA—American Evaluation Association

AP—Advanced Placement

CIM—Continuous Improvement Model

CCSS—Common Core State Standards

CPE—Continuing Professional Education

CPED – Carnegie Program Educational Doctorate

CR—Credit Recovery

CRIT—Credit Recovery Instructional Treatment

CS—Curriculum Specialist

EOC—End of Course

FLVS—Florida Virtual School

FTE—Full Time Enrollment

GED—General Education Diploma

IDEA—Individuals with Disabilities Education Act

IEP—Individualized Education Plan

IL—Instructional Leader

LRC—Learning Recovery Pace

MIT—Massachusetts Institute of Technology

MOOC—Massive Open Online Courses

NAC—Never Activated

NCAA—National Collegiate Athletic Association

NCLB—No Child Left Behind

RISE—Reading Instruction through Strategy Enhancement

SACSCASI—Southern Association of Colleges and Schools Council on Accreditation and School Improvement

SME—Subject Matter Expert

VSA—Virtual School Administrator

WF—Withdrawal Failing

WP—Withdrawal Passing

CHAPTER 1: CONCEPTUALIZING THE PROBLEM OF FAILURE AND THE NEED FOR CREDIT RECOVERY

Why Credit Recovery Is Important

There is a belief among many people in this country that minimum wage work is the field into which the uneducated fall. This world view ascribes poor study habits or personal failure to the faces they see manning convenience store or fast food counters. While this might have been a correct assumption in the past, currently it is an inaccurate portrait of the relationship between education and employment in America. In 2012, 87% of high school graduates were wage workers, and 72% of those worked at or below minimum wage (United States Department of Labor, 2012). It is an arguable claim that a high school diploma has become the minimum competency document for base minimum wage employment within American society. To earn more than minimum wage, to maintain employment, and to provide for quality of life expectations, students must fulfill the requirements of earning a high school diploma as a measure of completing their education and demonstrating to future employers that they have what it takes to succeed in life and become productive, contributing members of society. Therefore, education at large has a moral imperative to offer students who fail courses the ability for multiple attempts at achieving credit. According to a 2012 data report from Florida Virtual School (FLVS), 53% of students self-reporting as credit recovery enrollments were successful in obtaining credit recovery in their first attempt. Of those 43% who were unsuccessful, 18% re-enrolled for the same credit but only 18% of those students were successful in their second attempt (Gonzalez, D., 2012). While numbers were not available for other large scale credit recovery providers like K12 or Apex, it is not outside of the existing data to believe they face similar difficulties assisting students to successful completion (Zinith, 2011). Much of the

available research shows that current credit recovery approaches are not working and need to be re-evaluated. It is our contention that this is due to a lack of research based design, systematic implementation, and evaluation.

In this chapter we attempt to define and place importance on credit recovery within education as a whole. We hope to elucidate the problems of failure that affect us all as educators. In discussing this problem within the context of our own school, we detail our own shared experience, expertise, and our audience expectations, important to provide gravitas for what we will claim (supported by limited research) and how we are able to make some of these claims. We will again widen our lens to illustrate how the ideas uncovered in our literature review may be adopted generally to other diverse organizations, allowing our research to apply to all modes of credit recovery. With appropriate modifications, our work may be applicable in any school environment be it physical, virtual, or blended.

In 1977, the federal government began tracking the 17 year old graduation rate. This was a change in how graduation was calculated, moving from counting school reported drop outs to counting the number of students entering ninth grade against the number of students graduating four years later. This classified students needing extra time to graduate as dropouts causing the perceived graduation rate to plummet (Heckman & LaFontaine, 2010). High stakes testing came to dominate the educational climate, which had a negative effect on graduation rates, especially rates for lower socio-economic, minority, and at-risk students (Human Resources Research Organization, 2007). The slow decline of vocational education due to funding cuts as well as general social stigma also sunk graduation rates (Benavot, 1983). These three elements combine to depress graduation rates by not including students who graduate early or late but still graduate

and gives no place in society for those who wish to pursue vocation rather than academia (Heckman & LaFontaine, 2010). Students who once had other options for pace and trajectory of learning, vocational education as one example, are forced into a four year academic cycle. If these students are unsuccessful in completing their high school diploma in four years, according to state calculations they are accounted in the drop out percentages even though they are still actively pursuing a diploma (Heckman & LaFontaine, 2010). After this recalculation, the presence of the fifth year high school student in the educational context became a problem. These students were affecting school, district, and state dropout rates thus creating negative press (Bruckerhoff, 1988). If schools and districts were already receiving the negative effects of a higher dropout rate for fifth year seniors, it made little sense to focus time and resources necessary for credit recovery (Gonzalez, S., 2012) on those students to ensure their eventual graduation. To accommodate these students and increase the school or district's ratings by improving graduation rates, public education has turned to largely toward online credit recovery (Gabriel, 2011) possibly explaining the upturn in graduation rates since it became a widespread option around 2005. Apex and FLVS both report high percentages of credit recovery students inside of exponentially expanding enrollment numbers (T.Citterman as cited in McCabe & St. Andrie, 2012; Florida Press Kit, 2014).

Credit recovery students, defined as those students who have been unsuccessful in other curricular modes of instruction including virtual courses and traditional classroom settings, face a lack of options. Many of these students face time constraints caused by impending graduation dates, serious health concerns, stressful family, or personal situations. State and personal factors show the causes of an increasing need for credit recovery. Unfortunately, the data shows that as many as two thirds of students enrolled in online credit recovery do not complete the program in

a reasonable time if at all (Zinith, 2011) coupled with an average yield rate (the percentage of students completing their course enrollment) hovering around 50% for online courses (Gonzalez, D., 2012), which is also mirrored in online college course yields (Tyler-Smith, 2006). These facts coagulate together to suggest that the lack of a specific, pedagogically researched approach to credit recovery is causing credit recovery to be unsuccessful in providing students with feasible means for obtaining credit.

There is a need for an organized, systematic policy or process to address students who have failed a core course for graduation requirement within most and perhaps all organizations. In most schools, both traditional and virtual, there is not a specific policy to address the special needs of credit recovery students at this time. The problem is related to these other organizational issues: rigor, accreditation, and alignment of curriculum with standards. All organizations strive to have the right amount of rigor in all curriculums. Courses which are too difficult result in students not being successful. The lack of policy and process is a problem for the following reasons:

1. Schools must provide standards based curriculum to ensure accreditation; if credit recovery is not organized thusly, schools risk losing accreditation ("Advanced standards for," 2011).

2. Without a systematic approach to credit recovery, programs run the risk of being not rigorous enough to successfully prepare students for End of Course (EOC) exams or other accountability testing thus forcing students to repeat mastered skills.

3. At-risk high school students burdened with repetition of mastered skills are put at a higher drop out risk due to their inability, perceived or real, to make up skills (Jacob & Lefgren, 2007).

In an educational environment ruled by choice, lack of success with students can result in loss of enrollments translating directly into loss of revenue for the school as expressed by a loss of Full Time Enrollment (FTE) state funding. Regardless of whether a class is for credit recovery or simply for credit, the proper amount of rigor combined with alignment of curriculum and standards create the conditions for state accreditation. The largest accreditation organization in the southeast, Southern Association of Colleges and Schools Council on Accreditation and School Improvement (SACSCASI), considers curriculum alignment indicators as key pieces of accreditation: Indicator 3.2 “The school’s curriculum provides equitable and challenging learning experiences that ensure all students have sufficient opportunities to develop learning, thinking, and life skills that lead to success at the next level” ("Advanced standards for," 2011). Indicator 3.2 “Curriculum, instruction, and assessment are monitored and adjusted systematically in response to data from multiple assessments of student learning and an examination of professional practice” ("Advanced standards for," 2011). Schools that desire accreditation need to provide equitable and challenging learning experiences to credit recovery students as a subset of “all students” so these students can develop required skills. Additionally, these schools need to monitor and adjust credit recovery programs in response to data derived from their implementation to achieve accreditation. Without accreditation, courses are not accepted at other institutions and students are not given credit for courses taken. Lack of accreditation would lead to a drop in enrollments and a loss of funding.

Who We Are

Kelly Scott is a professional educator in the state of Florida. She has a M.A. in English Literature and has worked with at-risk populations in a Title I, urban school in Orlando, Florida. Working with this high credit recovery needs population in the fourth largest district in Florida and tenth largest district in the nation for five years has given Ms. Scott direct experience in the needs of this student population as well as the challenges facing stakeholders engaged in credit recovery. Ms. Scott was involved in a county-wide curriculum writing project entitled Continuous Improvement Model (CIM) where she created skill acquisition curriculum for at-risk students. Additionally Ms. Scott has worked for seven years at Florida Virtual School teaching a variety of high school English courses delivered online. In any given year, roughly thirty to forty percent of Ms. Scott's student population seeks credit recovery. Ms. Scott has been actively involved in a variety of curriculum decisions targeting these students including creating the discussion based assessments for English 3 with answer keys for the summer school option program. Ms. Scott is both well versed in the online learning culture and the needs of students seeking credit recovery online.

Elise Anderson Smith is a professional educator in the state of Florida with an M.A. in English Literature and three years of experience with at risk, Title I high school student populations in Orlando, FL. Mrs. Smith was on the county-wide writing team creating CIM materials for Orange County. Mrs. Smith taught for four years at a suburban Seminole County school which also received Title I funds and had a different population of students (suburban, majority white, and Hispanic demographic) whom also had a high credit recovery need. Mrs. Smith taught a variety of high school English classes and remedial Reading double block classes

for ninth, tenth, and twelfth grades and worked with a state Department of Education coordinator to create curriculum and materials for an experimental reading program called RISE. Mrs. Smith has taught at Florida Virtual School for six years delivering instruction in a variety of high school English classes. Mrs. Smith has been actively involved in a variety of curriculum decisions made for this population over the years. Mrs. Smith has also been an internal reviewer for summer school option curriculum at FLVS.

Mrs. Smith and Ms. Scott have been employed as Subject Matter Experts by the Curriculum Department of Florida Virtual for a wide variety of projects over the past six years. They have written curriculum, assessments, blueprints, and been reviewers on a large number of projects. Some of the information within this dissertation in practice is gleaned from working knowledge of various educational settings and cannot be easily affixed a citation. For example, students can only recover one full credit in summer school is a fact known to teachers working in a brick and mortar context over the last century but it is not something we are able to pin point to a source. For these assertions, we will indicate in the body of the text that our professional knowledge and experience supports these assertions. Furthermore, because of the newness of online education, extremely recent changes, and the nature of some of the issues discussed within this dissertation in practice, some resources will be unconventional. For example, newspaper articles discussing recent changes to funding models are used because the changes are so new they are not discussed in any academic context yet. Some social media sources bolster the opinions of summer school as “punitive.” We do not mean these to be interpreted as hard data but as support for opinions expressed or elusive facts known to those in education.

We are one of the first cohorts to go through the new Carnegie Project on the Education Doctorate. This program advocates authentic dissertations in practice focusing on improving a problem or gap in research within one's own organization. From the start of our careers, we have been concerned with the students who fell through the cracks. Where do these students go? What kind of adults will they become? How will losing these students affect our society? This basic concern for the educationally disadvantaged prodded our research. Dealing first hand with these students in both a traditional and virtual setting has made us see what few options are available to them. Researching the problem further throughout our three-year graduate school odyssey has made us realize the dearth of study done in this area. The research gap involving credit recovery, specifically online credit recovery is large and wide.

We believe our work in the areas of design study, evaluation, and implementation planning to be soundly useful both in the academic and organizational context as well as generalizable to online education and quite possibly credit recovery in any context. Readers might be taken aback at the non-traditional aspect of this dissertation in practice. Although we are working without an official study, the product is based in research and sound practice. Our work is not a quantitative or qualitative research project. It is not technically "research" at all. In part this is a function of organizational resources in a difficult financial climate. In a perfect world, we would have run a pilot program along the implementation lines described here in chapter five, run evaluations described here in chapter four, and delivered up a wealth of data to the academic community to flesh out our conclusion in chapter six. When we began our graduate work, FLVS experienced some deep reorganization in the Curriculum Department caused by the wake of the great recession of 2008. There were significant personnel layoffs. Rewrites, course development, and even updates or fixes on existing courses were significantly scaled back in

scope, delayed sometimes indefinitely, or scrapped altogether. The intervening years between the start of our research in 2011 and the culmination of our dissertation in practice in 2014 did not see improvements in this area. Legislation in 2013 curtailed funding for the organization furthering the slowdown in the Curriculum Department. These cuts led to further significant personnel layoffs throughout the organization. Our pilot would have involved a large financial and human resource investment the organization just could not afford during these lean years.

In analyzing the problem of credit recovery within this organization, we do not mean to say or imply that Florida Virtual School is deficient or negligent in any way, shape, or form. The nature of the dissertation in practice is to look at real organizational problems or gaps. We do not mean this to be a negative assessment of FLVS or any other organization. This is a problem that affects nearly all schools. As we discuss in detail below, most means of credit recovery that are being currently being implemented which encompass everything from the traditional brick and mortar summer school approaches to large corporate for profit providers are not successful. It is our assertion that the reason for the lack of success of credit recovery within education is due to a lack of research based best practices being implemented and evaluated in an organized manner.

Audience and Organizational Specifics

We expect that our audience is well versed in the current public school culture of accountability especially in the K-12 setting. We expect they understand standards and assessment initiatives as well as large legislatively based educational directives like Individuals with Disabilities Education Act (IDEA) and have some general idea of how schools are funded. Additionally we assume that our audience is cursorily familiar with basic modes and concepts of

online education. While our audience might be familiar with the specific context of Florida schools, this is not necessary to glean meaning from our work.

The changes in the Ed. D. stemming from the Carnegie Foundation influence allow for an authentic dissertation in practice that can be a culmination of a group or team project. We have chosen to work as a team to tackle a problem with which we are both intimately familiar. However, due to the scope of the project and our individual areas of expertise, we have split up our focus in the following manner and for the following reasons. Chapter One is an overview of the problem as well as an introduction to the researchers. Chapter Two is an analysis of context (discussed through a literature review), history, and organizational culture wherein the problem is studied. Chapter Three is an in depth discussion of design specifics and their connection to research from the literature review in Chapter Two. Chapters One, Two, and Three were written in tandem. Chapter Four is an evaluation of the current mode of credit recovery, the proposed model of credit recovery from the Chapter Three design study, and a comparison of the two. Chapter Four was written by Kelly Scott. Chapter Five is an implementation plan for the proposed model of credit recovery from the Chapter Three design study including a framework for evaluating the effects of the treatment. Chapter Five was written by Elise Anderson Smith. Chapter Six is a brief offering of recommendations and a discussion of limitations. Chapter Six was written in tandem. Appendix A includes a sample of the created design curriculum including blue print mapping to Common Core State Standards. The creation of the design curriculum was done in tandem.

CHAPTER 2: LITERATURE REVIEW: EVOLUTION OF CREDIT RECOVERY

Introduction

Chapter Two focuses on our exhaustive attempt to research credit recovery in American schools in a literature review detailing the history and current practice of assisting students in their goal of successfully completing high school. Due to the limited amount of scholarly work of any quality on this particular topic, we use some less-scholarly citations. These are noted internally when used. We found ourselves examining drop-out prevention programs as well, which serve a similar student population base. We begin with this examination to identify the gap in our nation's educational reform attempts, showing our readers the global range of this project before narrowing the focus to virtual education specifically and ultimately to our own organization of Florida Virtual School (FLVS).

The Role of Credit Recovery on the National Stage

Credit recovery is a byproduct of the NCLB legislation of 2001 with no federal definition, organization, or oversight. Programs are generally decentralized even at the district level (McCabe & St. Andrie, 2012). General high school graduation rates range from 66-88% nationally (Heckman & LaFontaine, 2010) making credit recovery an arguably necessary program in order to facilitate higher graduation rates. Early approaches to dealing with credit recovery were to offer summer school to those who had not passed courses. Often programs depended on seat time and repetition of curriculum (Cooper, Charlton, Valentine, Muhlenbruck & Borman, 2000; Bennett, 2013; Smink & Deich, 2010). Due to the hours to credits equation,

students could only make up a maximum of one full credit or two half credits in a remedial summer session (“Why teaching summer,” 2011).

Gaining a General Education Degree (GED) has always been an alternative to either dropping out or credit recovery, but the reality is that the current GED exam is very difficult. A large percentage of students who attempt this route are thwarted. Not only have they already dropped out of school, making it more difficult to re-enroll, but they have placed all their hopes on a single testing event that has the potential to go badly leaving them swiftly cut off from education. In Florida, 71.3% of students taking the GED passed (“2011 annual statistical,” 2011). For every ten students pinning their hopes at attaining high school equivalency, three leave the room without meeting that goal even though they have overcome the monumental task of even showing up for the test. Only 1.9% of the target population (adults without a high school diploma) take the test, of those, 67.2% are aged 16-24 with an average of 11th grade as the highest grade completed, 5.2% of students arriving to take the GED do not even finish the exam (“2011 annual statistical,” 2011). There is no definitive data on the percentage of students who sign up to take the GED and do not attend the test.

In the millennial decade, school budgets shrank and online options became widespread and affordable, if not free. Schools enrolled students for course repetition online. Finding evidence of longitudinal summer school enrollments to support the well-known educational practice of cutting summer school has been problematic. Most districts either do not have these numbers compiled or are not advertising them. The district of Miami-Dade does have data available (“Statistical abstract 2007-2008), but this data is problematic in that the county began an FLVS county-based franchise as well as a learning lab partnership with FLVS delivering

course content at physical schools in the district. The data shows a modest dip in enrollments at the time summer schools were being closed and students were being enrolled in online credit recovery in larger numbers, but the data rises again soon after and is not disaggregated by who is offering content in the summer school enrollments. While we do not have raw enrollment numbers from FLVS, we can surmise that an increase in completed credits would mirror increasing enrollment numbers. Between 2000 and 2010, FLVS credit completions have grown at an average rate of 40% each year. In this decade, FLVS went from completing 6,382 enrollments in a year to completing 213,926 in a year, increasing completed enrollments by 33 times. A high water mark of 410,962 completed enrollments were reported for the 2012-2013 school year (Florida Press Kit, 2014). If we consider that at least a third of FLVS enrollments are credit recovery (Dessoff, 2009), FLVS has increased the credit recovery population they are serving from roughly 2000 students to roughly 140,000 students in thirteen years. One can imagine the space these students would formerly have taken up in a physical summer school setting.

While the idea to use credit recovery to move students to minimum academic competency has evolved on the national level, the attitude of the educational system toward failure has not evolved as rapidly. This creates conflicting factors which work to stymie progress in developing credit recovery approaches. The educational system at large advocates second chances for students, increased graduation rates, and higher participation in post-secondary education. Inherent in achieving those three goals is the need for students to have multiple chances at success. However, the culture internal to education and external to the public perception of education continues to stigmatize the need for multiple chances as failure. It is often believed to be shameful or negative to need credit recovery and therefore resources, both

human capital and financial, are not devoted to creating successful credit recovery programs. School systems do not advertise or celebrate credit recovery programs. Often state funding is cut or structured in a way that makes credit recovery a problem for schools to offer as states are reluctant to pay double FTE rates for a student to retake a course.

Credit recovery has been conceptualized as a problem created by changes in cultural attitudes toward education throughout the late 20th and early 21st centuries. *A Nation at Risk* (Gardner, 1983) focused the conversation about education toward competency based reform. While based on the laudable idea that students who graduate high school ought to have a minimum amount of knowledge, these reforms had the effect of making education about showing a minimum competency in a variety of fields rather than showing an overall knowledge or aptitude in any one field. Credit became tied to competency; thus, lack of credit began to be viewed as lack of competency in a set of skills (Marion & Sheinker, 1999; WGBH Educational Foundation, 2002). The philosophy of the No Child Left Behind (NCLB) legislation (107th Congress, 2002) created accountability for a growing philosophical and cultural belief that all students should achieve an academically-based high school diploma. After NCLB, a high school diploma came to represent hard data accountability for students meeting academically-based goals represented by standardized test math and reading scores. Even vocational programs are being assessed on their relation to academic goals rather than the technical skills needed to achieve job certification (Bridgeland, Jililio, Jr. & Morison, 2006). In the early part of the 20th century, an academic high school diploma was the territory of a college bound student. Currently 87% of minimum wage earners hold a high school diploma or higher (“Characteristics of minimum,” 2012). In order to facilitate more students achieving an academically-based high school diploma, vocational technology has been stigmatized, dropout prevention programs have

exploded in prevalence, remediation programs, and the need for credit recovery has increased at all levels of education (Kober & Rentner, 2011). Credit recovery works as a tool to provide students multiple chances to achieve the new cultural minimum levels of academic competency. It is also a tool for schools to have a second chance of showing success with at-risk populations in order to keep funding and status within the community, district, and state modes of accountability. It is also a tool for students to right wrongs and increase their future opportunities.

Unfortunately, failure in its very nature is a negative thing. While the society deems second chances should be given through the medium of credit recovery, this does not remove the stigma of failure and the reluctance of schools, districts, states, and nations to face failure with a net positive attitude and plan. Therefore, the problem of credit recovery is stigmatized. It is seen as not only an individual failure (to be discussed further along in our text) but also as a school, district, or state failure with many facets. Education is having a cognitive failure creating programs and curriculum to deal with students needing credit recovery. The system is having a motivational problem in creating successful programs because of the stigma attached. Education is having a behavioral problem in solving the credit recovery dilemma in that organizations are fractured without one unified approach or behavior toward credit recovery. The problem is cultural in that the negativity of failure and remediation is deeply rooted in the American persona of success and individual achievement often characterized as the “American Dream” hearkening back to 1689 with Locke’s idea that the government’s job was to ensure the “life, liberty, and estate” of the governed thus ensuring their ability to successfully acquire material goods (Locke, 1698/2011).

The traditional effort to address the problem of failure within the school system was to offer summer school allowing students to make up on average only one full or two half credits per summer (Bennett, 2013). This policy excluded students needing to make up more than one whole credit. Shrinking budgets, increasing plant costs, the increasing availability of online education, merged with its low or no cost have been the pull to combine with the push of site-based personnel looking to wash their hands of failing students. This has created the online credit recovery culture (Kober & Rentner, 2011). Site-based summer school programs have dwindled (Gonzales, S., 2012). Of these online approaches, credit recovery with FLVS is a major public provider (McCabe & St. Andrie, 2012). APEX is the largest for profit provider of credit recovery curriculum claiming 50% of their enrollments are credit recovery (T.Citterman as cited in McCabe & St. Andrie, 2012) making up 197,500 of Apex's reported 395,000 enrollments for 2011-2012 (Apex Learning, 2012). The positive effect of these efforts is to offer unlimited credit recovery to a wide variety of students. A national movement to transfer credit recovery students away from site-based programs to online programs might be one factor for increased student success rates shown in a slight increase in high school graduation from 71% in 1995-1996 (before widespread online credit recovery was available) to 75.5% in 2008-2009. A modest lowering of the national dropout rate from 11.1% of all students in 1997 (the inception of online education) to 7.4% in 2010 a decrease of 3.5% when the largest previous change was a decrease of 3% (Snyder & Dillow, 2012) might also be attributed to online education. A change in attitude toward access to education can be seen in the inclusion of "all students" in the mission statements of most public high schools (Florida Mission, 2012) shows an acceptance toward those seeking second chances as well as those who need accommodation. Sadly, the data on students achieving those offered credits is not as positive. A quantitative study of a program in

Texas found that only a third of students complete online credit recovery in a reasonable amount of time while a third drop out entirely (Zinth, 2011).

There has been a noted backlash to online education stemming from community and traditional school sources. Accusations against online education as being credit mills and places of reduced expectations resound (Gabriel, 2011). Changed funding models in how Florida pays FTE have just taken effect in the 2013-2014 school year and might be a reflection of a general backlash toward educational flexibility and have the possibility to turn online education and credit recovery upside down (Sagues, 2013). The effects of these changes could ripple through national online approaches. On a positive note, Georgia Technical College has begun to offer a fully accredited Master's degree program online (Morrison, 2013). This new offering coupled with MIT's huge Massive Open Online Course (MOOC) offerings and the popularity of Kahn Academy might mitigate the backlash of negative perceptions toward K-12 online education. If reputable, degree granting institutions base their instructional modes solely in an online environment, surely it is a respectable means of delivering instruction. If this perception exists toward higher education, perhaps it will enhance perceptions of online K-12 instruction.

Locus of Failure

The problem of needing credit recovery has usually been conceptualized as a failure of either the individual student or the site-based school in providing instruction. In regard to the idea of the individual student being the locus of failure, the problem of offering credit recovery has been thought of as a problem of dealing with remediation. Before the advent of online instruction, these students were remediated through the summer school model. Often seen as punitive in nature, lacking the option to recover multiple lost credits ("Why teaching summer,"

2011), and costly (Gonzalez, S., 2012) for schools implementing summer school programs, many schools suspended offering this type of remediation for failure and began enrolling failing students in online credit recovery programs. The most prevalent of these approaches in Florida being online credit recovery with Florida Virtual School (FLVS) (McCabe & St. Andrie, 2012). For those envisioning the problem of credit recovery as a problem of individual failure, this movement to online credit recovery isolated the failed students and made them accountable for showing minimum competencies. The individual problem of credit recovery has many facets that reflect the many and varied types of students who find themselves in need. The trend in recent decades to mainstream students with various cognitive difficulties in the least restrictive environments (U.S. Department of Education, 2004) has created students who failed due to a lack of ability or accommodation (Zablocki & Krezmien, 2013; Swanson, 2008; Reynolds & Birch, 1982). There are also students who find themselves in credit recovery as a result of poor health, behavioral issues, and other personal issues (Bridgeland, Jilulio, Jr. & Morison, 2006; Zablocki & Krezmein, 2013).

For those envisioning the problem of credit recovery as a failure of course design, the trail of failure starts in the traditional class, which failed the student for any number of reasons: inflexibility of schedule, imbalance of rigor, poor pedagogy, lack of ability to inspire motivation. However, if the locus of failure is considered to be course design, yield rates of online courses show a continuation of the failure of course design to provide successful environments for students. One study defines the problems with virtual credit recovery: assignments are unclear, not authentic; students have limited skill sets, and a lack of motivation (Franco & Patel, 2011). Another study posits that students are more likely to drop out and fail online (Roblyer, 2008), although this study does not take into account the practice of loading virtual credit recovery

programs with students who are already struggling with concepts, have less access to technology, or behavior issues. The movement within education to keep unmotivated students rather than accepting high dropout rates has created students in need of credit recovery because their personal motivation was not sufficient to finish or maintain enough interest in the first course enrollment to receive a passing grade (Bridgeland, Jilulio, Jr. & Morison, 2006). This catering to motivation can be seen in the increasing call for curriculum to be interesting and relative to real world experience. Realistically, the problem of needing credit recovery is a blend of individual and system causes that result in failure for the student and thus for the organization charged with the success of students. It is ethically and morally correct to provide multiple opportunities for these students to succeed and to cater those opportunities to the needs of the population.

A Growing Problem with Little Research

One of very few (and the most current) research studies to look at the effectiveness of online credit recovery looks at an Algebra 1 credit recovery study comparing face to face models with online learning. Preliminary findings show a small but significant difference between success rates for traditional (62% success) and online (56% success) $p < 0.0001$. Student assessment scale scores were not significantly different between the two options ($p = 0.8$) (Happen & Sorensen, 2012).

What little scholarship there is exists mostly in dissertations where the focus is on qualitative data expressing laudatory praise and student centered-ness (Jones, 2011; Robbins, 2011; Parks, 2011). Lack of data might stem from program newness (Zinth, 2011), but there also is little hard data for traditional high school methods (Cooper, Charlton, Valentine, Muhlenbruck & Borman, 2000). Drop-out prevention programs also focus on students who need credit

recovery. In these programs, academic support in the form of one-on-one interactions is one key concept discussed in various studies focusing on relationship-building between instructors and students (Dynarski & Wood, 1997; Sinclair, et al, 1998; Thurlow, et al, 1995). Immediacy with regard to intervention is also paramount to these students' success (Sinclair, et al, 1998; Thurlow, et al, 1995). Identifying real life skills addressed in a class assists with student success, reinforces the relevancy of school, and allows for development of problem-solving and decision-making skills that anticipate life outside the classroom (Kemple & Snipes, 2000; Snipes, et al, 2006). A study that applies to the general population of learners identifies the need for teachers to receive timely, effective professional development to increase student achievement (Haycock, 1998).

A quantitative study of a program in Texas, mentioned previously but pertinent here as well both for its findings and its existence as one of the few quantitative studies done on the topic, found that only a third of students complete online credit recovery in a reasonable amount of time while a third drop out entirely (Zinth, 2011). A study of APEX found 86% of students passed overall, but the numbers varied greatly by course with the highest pass rates in English 1 (Huckabee, 2010). This study is unique in attempting to break down results by subgroup; only students on free and reduced lunch had significant likelihood of making higher gains online (Huckabee, 2010).

The National Center for Education Statistics, Institute of Education Sciences report (Queen & Lewis, 2011) is comprised of data from 2150 school districts in 30 distinctly identified strata pulled from 13,563 regular and 2191 charter school districts. 55% of school districts surveyed have 1.8 million students in distance learning, mostly in high school. 57% of districts

surveyed provided credit recovery and 74% of these districts planned to expand their offerings. This number of students shows a need for focused attention on practice. Data also shows the gulf in equity of access. Districts most likely to offer courses are districts that are larger, suburban or town centered in the southeast with 10-19% poverty concentration. High poverty concentration areas came in as second most likely to offer distance learning programs. Least likely to offer programs were small cities in the northeast with less than 10% poverty concentration (Queen & Lewis, 2011).

There is a large and multi-faceted gap in research on the subject of credit recovery be it online or site based. Currently both APEX and FLVS have no separate curriculum or approach devoted to credit recovery. Research is needed on success rates for various curriculum treatments and mediums of delivery in order to assess effectiveness. This is especially important in light of the inequity of students who tend to need credit recovery. A new approach is needed on the organizational, district, state, and possibly national level to rethink remediation.

Organizational Context

The problem of providing effective credit recovery affects all school districts as they all have failure rates; however, we will be analyzing the effects of this problem within online institutions with further focus on FLVS because the prevalent trend in education is to move failing students to an online venue.

FLVS is an online educational business founded through a grant from the Florida Department of Education. The premise of this school is that students should not be ‘prisoners of time’ nor forced to attend classes in a structured environment at odds with their behavioral, cognitive, and/or emotional development. Instead, students should be freed from time constraints

and allowed to work at any time, with teachers available outside normal business hours to assist and facilitate learning. The goal, therefore, of this school is to educate its students, to meet the needs of these students where they are, and to do so with excellence. (Florida Press Kit, 2012).

FLVS is an innovator in education, from being a pioneer of online learning to keeping abreast of current and ever-evolving technologies and trends in education and beyond; applying these 21st century skills to its content with the end goal of delivering a high quality, technology-based education that provides the skills and knowledge students need for success (Florida Mission, 2012). Since its official inception in 1997, FLVS has remained at the forefront of distance learning throughout the United States and has earned accolades abroad (Florida Awards, 2012).

FLVS employs over 1,800 staff members, most of whom are instructors/teachers, 125 of whom are nationally board certified, all of whom possess a valid Florida teaching certificate and are certified specifically in the subject they teach (Florida Quick, 2012); managers account for 30 positions; and other support staff comprises the 100 remaining employees. There were over 148,000 students served by FLVS during the 2011-2012 school year of varying backgrounds in regards to gender, race, culture, and language (Florida Quick, 2012). FLVS is part of the Florida public education system, awarded charter status as a school district in its own right, and serves students in all 67 Florida districts, 49 states, and 57 countries (Florida Quick, 2012). FLVS serves students, schools, and districts around the nation and world through tuition-based instruction, curriculum provision, and training (Florida Quick, 2012). While some assistance is available in the form of temporary laptop computers donated through charity funds, the majority of students provide their own access to the school's educational resources, which are all online.

There is no traditional school building for this school; students ‘meet’ online and contact their instructor/teacher via phone, internet, or other non-face-to-face method breeding a level of autonomy for students not necessarily considered the norm in most educational circles.

Because credit recovery students may indeed comprise a significant percentage of this organization’s clientele (Dessoff, 2009), it is reasonable to include their voices in decisions within FLVS with regard to course offerings. Doing this would be in line with FLVS’ mission to reach all students no matter their academic situation.

How Credit Recovery Evolved at FLVS

The challenge of credit recovery is a cultural, organizational, and individual problem. There is a stigma accorded to credit recovery personally, culturally, and professionally. This stigma still persists throughout education (Bruckerhoff, 1988) causing schools and districts to shy away from any focused treatment of credit recovery. No school or district wants to be associated with failure. While stigma tends to hide the problems inherent in offering credit recovery programs, the cultural emphasis on the importance of achieving a minimum competency education is growing. Culturally, our society is placing higher value on students completing an academically-based, minimum-competency high school education. Alternative options for students such as technical education, apprenticeship, and certification have been dwindling globally since the 1950’s (Benavot, 1983; Billett, 2011; Rowe, 2011) accompanied by cuts in funding (Rich, 2011).

Organizationally, FLVS has the opportunity to serve the increasing percentages of enrollments that are credit recovery if changes are made in the approach to students and curriculum. This might include a change in how the organization views its role and purpose

within education. Embracing a role as a credit recovery provider does not have to preclude being an innovative provider of rigorous curriculum nor does it mean other higher offerings will not populate the FLVS catalogue. FLVS has an opportunity to make credit recovery laudable, interesting, and cutting edge because there is a vacuum in education and a great need for service. This shift in attitude toward serving credit recovery students might also be necessary to stay competitive within the market of online education. APEX learning partnered with Colin Powell's American Promise Alliance and the National Grad Campaign in 2011 to specifically focus on the 1.3 million students they claim drop out of school each year ("America's promise alliance," 2011). This openness and partnership might explain Apex's gain of market share within the industry. APEX claims up to 50% of their enrollments are credit recovery. This represents tens of thousands of students (T.Citterman as cited in McCabe & St. Andrie, 2012).

According to Dessoiff (2009), 33% of FLVS enrollments are self-reported as credit recovery representing roughly 35,000 Florida enrollments in 2009. While the number of credit recovery students is high, FLVS has had challenges creating a systematic dedicated credit recovery approach. The challenge of credit recovery has been envisioned in many ways over the course of the organization's existence. As the data showed an increase in credit recovery enrollments, FLVS used localized, subject based approaches such as reduced assignment load (LRC pace) or limited time frames (summer school enrollments).

Learning Recovery (LRC) pace was one early attempt to address the problem of credit recovery at FLVS. Starting in summer of 2010, teachers were advised to question students as to their previous failure at attempting credit. If the student had failed, teachers could offer a reduced assignment list to the students. While hard data does not exist for the LRC program and FLVS

halted the program in 2011, anecdotal evidence gleaned from working with these populations showed little increase in students achieving credit through a reduced assignment load.

In 2013, FLVS developed specific credit recovery classes for certain high failure rate courses. Students who enrolled for the purposes of credit recovery could choose specific CR classes with the stipulation that courses had to be completed over the summer. Those courses were not marketed internally or externally but existed in the catalogue. While hard data does not exist for the success of this approach, the dedicated CR program has ended for the 2013-2014 school year and will not be repeated (Name Withheld, 2013).

While specific data for the success rates of these programs is not available, suspended implementation would point to a lack of program success. Currently most credit recovery students take the same classes as traditional students.

In the wake of recent changes in the funding model for Florida pupils, FLVS faces a crisis of denied access, denied access being the organizational term for students being denied access to enroll in FLVS classes. Students who formerly were enrolled in FLVS by their site-based guidance counselors are being told by those counselors that they cannot complete their credit recovery online and must return to site-based programs thus threatening the funding model for FLVS (Florida Virtual School, 2013). The organization has been dealing with this problem as a problem of enrollment in general rather than a problem of credit recovery but with numbers of students needing credit recovery hovering at or above one third of total enrollments (Dessoff, 2009), enrollment numbers might be a question of who offers the most successful and financially viable credit recovery options.

Generalizing CRIT to Diverse Organizations

We have little doubt that the need for addressing credit recovery is not new to you, our reader, if you have spent any time inside a school in the last twenty years or in summer school even earlier than that. We also trust that your organization has had many different approaches for dealing with this need mirroring any number of emotions from shame of being associated with failure to fear of having that failure affect a school grade or a district's reputation. Maybe there have even been moments of pride and hope when a new program was implemented. Perhaps these were only followed by apathy and abandonment when the new program did not live up to expectations. While some of the specific details may be peculiar to our personal experience, our organization's approach, and the outcomes of both are likely not new to you. They are a universal truth in education in the United States. Our work is inherently generalizable to you because the situation is a universal truth. In our subsequent chapters we provide a research based approach that can be implemented in a variety of settings. We cannot promise to erase the emotions that connect us all such as distaste for failure; for that seems to be inherent in the human DNA. We will not promise you a grandiose success rate. We know the special challenges of a credit recovery population. What we can offer is the benefit of research based best practices implemented and evaluated in a systematic way to address the realities of that student population. In this way, we believe some of the ennui schools and districts feel when dealing with these populations can be mitigated by facts and improved incrementally.

CHAPTER 3: A SAMPLE TREATMENT FOR OUTLINE CREDIT RECOVERY: DESIGN STUDY

The Why Behind the What

The overall purpose of this chapter is to introduce the reader to the design study behind the creation of CRIT. Specifically, this chapter discusses the rationale for design choices, the organization of the program, and then connects these elements to research-based best practices. This information provides the bulk of our work and shared vision of how to solve one problem of practice within the educational world. As scholars, we saw the need to research struggling students in order to discover their specific, individual needs. As teachers, we see ever-growing standards, skills, and requirements further increasing the need to reach struggling students. We are continually concerned for those who fall between the cracks of our national quantitative, assessment-driven education cycle. As doctoral candidates, we found the opportunity to make a difference in student lives by searching for bridges across this glaring gap we see between failure and success.

Using our research, and through our discovery of the dearth of research, we have created a new credit recovery program, entitled CRIT (Credit Recovery Instructional Treatment) to assist those students who do not initially succeed in a course and need to have a second (or possibly even third) chance at success. CRIT is a standards based curriculum relying on criterion based assessments. Our sample curriculum focuses on the English IV content area not because the program is specific to English IV or even English courses alone, but because we know that this course is one of necessity in earning a high school diploma and is often one of the last courses a student takes, which makes it a prime candidate for senior student failure and for us.

We detail the need for a new approach to credit recovery in our next section, the specific design choices and research-based practices that influenced our creation of this new curriculum plan to follow, and the core beliefs that we as teachers at FLVS hold true at the end of this chapter. We provide sample lessons from our curriculum treatment and explain how each of the research-based best practices and core beliefs of our institution are fulfilled in CRIT.

We provide four ‘typical’ credit recovery students and through these personas, we discuss the aspects of this new program, showing how each student will benefit from CRIT. The use of persona within design helps stakeholders see concrete changes for end users (Lidwell, Holden & Butler, 2003). These personas by intention are stereotypes of students needing credit recovery we have encountered through our extensive careers and ask that readers treat them as such. They are taken from our history of teaching and are representative of a type of student; we understand that all students are unique individuals with specific skillsets and situations shared by only them; however, for the sake of clarity, we believe these stereotypes work well to elucidate the multiple and vastly different user types facing credit recovery needs and how CRIT will work for each.

The Changing Landscape

A high school diploma has become the minimum competency document in our culture (“Characteristics of minimum,” 2012). Perhaps this is a product of a post-industrialist society or a step in the inevitable progress created by compulsory education. Regardless of the causes, having this minimum competency document opens the door to higher paying jobs and higher education. Those who are not able to obtain a high school diploma are disproportionately consigned to low pay and illness (Matthews, Gallo & Taylor, 2010; Belfield & Levin, 2007). Later in life, being educationally deficient is linked to violent behavior and crime (Kokko,

Tremblay, Lacourse, Nagin & Vitaro, 2006) although these characteristics might be causal factors for dropping out of school rather than the effects of a lack of education (Jarjoura, 2006). Because of the very real personal consequences for not gaining a high school diploma, schools have a larger than ever moral imperative to create second opportunities for struggling students. This need has led to some changing attitudes toward credit recovery within the broader culture of public education.

As discussed in Chapter Two, early modes of credit recovery included things like night school. These programs were often only delivered in high need areas, had a negative cultural stigma associated with them, and at an average of 7% of students affected, did not represent a significant number of students that would engender district focus of resources ("Fast facts: Dropout," 2013). There was a time before the 1990s when summer school in many areas was focused on acceleration as well as remediation. This practice began to dwindle in the decade of the nineties as budgets shrank and allocations were refigured. By the millennial decade, summer school had become largely focused on credit recovery. As online education flourished in the early to mid-2000s, more options for credit recovery became available to students. In many ways, online credit recovery has changed the experience of failure for students. Before online options, credit recovery was a very public, punitive, and embarrassing event for students ("15 reasons summer," 2013). Students had to go to summer school. Teachers, administration, friends, and family all knew they were going to summer school making credit recovery a public event. Summer school hours were often long, discipline was enforced more harshly, and the number of credits a student could make up were limited due to seat time constraints ("Why teaching summer," 2011).

Design Personas

Personas are helpful in aiding stakeholders to envision how design will affect specific types of end users (Lidwell, Holden & Butler, 2003). The use of personas is consistent with user-centered design strategies of which CRIT is representative. The personas we have chosen are based on specific end user profiles. Elements of design attempt to find cross purposes in both end user and organizational goals for the benefit of both. By necessity these profiles are somewhat stereotypical and at times hyperbolic; they do represent both individual students we have known who have embodied all of the fictional persona's traits and individual elements we see in a wide variety of student personalities.

Consider our first student persona; let's call her Mary. She had a "B" average in English 3 but she became severely ill during the school year and missed thirteen days. Further, Mary lives in a county that only offers hospital home bound services to students with more than fifteen absences ("Hospital homebound eligibility"). Because of her school district's ten day absence policy, Mary failed English 3. Suddenly Mary, a student who had never been in trouble or failed a class before, is in summer school with a selection of other students, most of whom are there because of cognitive difficulties or discipline issues (Sinclair, 1998; Swanson, 2008; Rumberger & Lim, 2008; Zablocki & Krezmein, 2013). Mary is forced to complete the entire course that she had already showed mastery on in a punitive environment with classmates she might find difficult or even frightening. If Mary missed thirteen days in English, it is almost certain that she missed these days in other required classes, but she will only be able to make up one full credit or two half credits at summer school. It will be impossible for Mary to make up all the credits she needs. She will either be consigned to stay in high school for a fifth year, or attend summer

school in this harsh psychological environment for multiple years to recover those credits. Mary would likely be embarrassed in front of her friends and family for having to go to summer school. Because of her illness, Mary becomes significantly more likely to drop out (Anderson, Whipple & Jimerson). Anecdotal evidence about the misery of summer school abounds and it is likely Mary's experience would be similar ("Why teaching summer," 2011; "Top reasons why;" "15 reasons summer," 2013). Now consider Mary's experience in online credit recovery. She can sign up for all the credits she missed due to her illness and complete them over the summer from her home without public shame. She can work at her own schedule allowing her to keep any job or social engagements she might have. She can graduate on time. Failing a class or even a semester no longer is a guaranteed ticket to dropping out. As long as the student is able to recover the credit, they will not experience the punishment of being put in reduced status classes or the embarrassment of being placed back a year. However, the online curriculum as it stands still forces Mary to repeat skills for which she has already evidenced mastery. In the current system, students must repeat the whole course as if they were taking it for the first time. Mary might find herself bogged down in busywork, unable to use her previous work to reduce her assignment load. We will set Mary down here to be picked up later. For now, let's look at another student. We will call him "Bill."

Bill is twenty years old and has only enough credits to be a ninth grader, a situation not uncommon in an at-risk inner city school. Bill is violent and has spent time in the county correctional facility. Because he has an IEP for his designation of Emotional Behavioral Disorder, he does not age out of the public school system until he is twenty two years old (Adams, Greenwood & Gritz, 2011). Teachers hate Bill and always have, or so he believed and he was not far off the mark. Most teachers have found him scary and socially ill adept. He does

not listen, do work, read on grade level, and for the most part, he does not care. He is loud and takes pleasure in causing disruption. He steals from students and staff. He is in every way a menace. Bills populate summer school. Bill's whole academic career has been a failing bid for credit recovery. You might wonder why Bill has not dropped out. There are several reasons Bills populate the public school systems: free lunch, sources or clients for stolen or illicit goods, parole requirements, social security or welfare checks attached to attendance, the availability of young girls, the list is endless. Before the widespread use of online credit recovery, Bill would show up to summer school every year and attempt to do as little work as possible and cause as much disruption as he could without getting kicked out. He could cause quite a bit of trouble because the schools have a difficult time removing students with ESE designations as any suspension for more than ten days would constitute a change of placement that might be considered out of line with a student's rights ("Rule implementation brief:," 2004). With online credit recovery, Bill must show work to stay in the class. Gone is the pleasure Bill got from disrupting class and potentially frightening girls six years his junior. Bill must focus on academics or risk possible parole violation and other negative impacts of not being enrolled as a student. Bill must meet standards as well. He cannot rely on group work or social promotion. In this way, online education is very good for Bill and those around him. However, the current mode of online credit recovery does Bill a huge disadvantage. Online classes are written on grade level and Bill is not performing on grade level. The current mode of credit recovery, which requires students to repeat the entire course as if it were the first time, would burden Bill with as many as sixty assignments to finish in the course of a summer, an unreasonable amount for Bill. Further, Bill is disadvantaged if he is of a lower socio-economic order. Not all Bills are "poor," but there is a large link between socio-economic factors as expressed by free and reduced lunch

rates and poor performance in at-risk schools (Belfield & Levin, 2007; Bruckerhoff, 1988; Jarjoura, 2006). In this characterization, let's assume Bill is poor. He does not have a computer or internet access in his home. In the current online mode of recovery, Bill's school will sign him up for a class that he will have to travel outside of the home and find resources to complete. What are the chances that Bill, barely interested in going to a brick and mortar school, will travel, ask questions to find resources, and work to do this on a regular basis? It is highly unlikely. The current system is a way schools can force students to drop out through creating circumstances where credit recovery is difficult or impossible for already unmotivated and underprivileged students. Schools often benefit from this unethical practice. Bill has been in school for so long, he will be accounted under the 17 year old graduation rate as a drop out. Due to his IEP and behavioral outbursts, he soaks up an inordinate amount of time and resources. It is likely the school sees him as a problem and would like to be rid of him. We will return to Bill's circumstances further along in our discussion. For now, let's move on to a third student representative of a third common type of person seeking credit recovery in the form of grade forgiveness.

Meet Alex. He passed the class he has enrolled in for credit recovery but he got a "D." In Florida, students must have a 2.0 grade point average to graduate or play sports. While a "D" may be a passing grade, in reality an overabundance of "D"s can have the same effect as failing grades: a lack of promotion. The Alexes of credit recovery cover a broad spectrum of personality types: students lacking motivation to complete assignments the first time around, those with cognitive difficulties, personality conflicts with a teacher, personal or family issues that affect school performance, or a variety of other circumstances. Our Alex's parents had a nasty divorce last year. He didn't know where he would be staying on any given night. Work sent home did not

get done. Parents were too wrapped up in their troubles to assist. Alex has become fairly apathetic about school. Before online credit recovery, Alex would be consigned, like Mary, to summer school; if he were allowed to make up the credit at all as some summer school programs focus only on failure. He would be subject to the same punitive rules, social stigma, and potentially frightening class mates. Alex might turn into a Bill or simply drop out altogether. Sadly, the current system of online credit recovery has not broadened the prospect of students like Alex. The current curriculum strategy where students simply take the entire class over again has Alex, an already apathetic and unmotivated student, completing a large number of assignments that he might interpret as busy work. Alex cannot bring in the work he has already done as the assignments are different in the online class. Additionally, Alex is placed in charge of organizing his time to work requiring him to be self-motivated. If Alex were self-motivated, he would not be in this situation. We will revisit Alex later. There is one last type of student who we need to meet.

Katie considers herself to be a bad test taker. Although she reads below grade level and painfully slowly, she loves to read and has always really liked school. In reality, Katie struggles with school because she has an IQ of around 80. She has no official cognitive impairments so she does not have an IEP and is not technically eligible for accommodations. Although her parents could have pursued a 504 plan for her under the IDEA ruling they did not have the time to complete the paperwork, a good understanding of the option, or the desire to have their daughter labeled. Katie is a hard worker, eager to learn, and really nice. At times, this has gotten her through classes even though she did not meet the standards on assessments but often she earns a failing grade or a “D.” Like Mary, Bill, and Alex, in the old days before online options, Katie would have been consigned to summer school with all the danger and drudgery that it entailed.

With the advent of online credit recovery she is freed from some of these elements, but within the current system, Katie is still disadvantaged. She must complete the entire course anew and cannot bring in her previous work. She will be overburdened by assignments she will find difficult because she is not performing on grade level. She will have to pass a skill based final exam with at least a 60% in order to receive any credit at all for the class. Katie, too, will be revisited further along in our work. While not exhaustive of the types of students needing or wanting credit recovery, Mary, Bill, Alex, and Katie represent many of the factors that create a need for credit recovery as well as limit its success. These educationally relative factors making up the persona's characteristics are:

1. Physical Health – Mary's overriding educationally relevant factor is her health, which has drastically affected her education.

2. Mental Health – Bill's overriding educationally relevant factor is his aggressive behavior and his status as emotionally handicapped. This drastically affects his education and perception toward education as expressed in his motivation.

3. Motivation – Alex's overriding educationally relevant factor is his motivation, which drastically affects his education.

4. Ability – Katie's overriding educationally relevant factor is her ability. Katie does not have an official designation as mentally handicapped (these cases would be under number two on this list) but has a low enough level of ability to significantly affect her educational outcomes.

These factors are relevant for the majority of students finding themselves in academic distress (Rumberger & Lim, 2008). They must be the template upon which successful programs are created.

While the educational community has been changing their attitudes towards credit recovery and those in need of credit recovery, it has also been changing the attitude towards online education. While there are still dubious providers of online degrees, credit, or certification; a great many reputable organizations now provide online courses. Most major universities provide classes online and some highly regarded institutions are beginning to offer degree programs completely online (Morrison, 2013; Stockfisch, 2013). A large portion of continuing education for a variety of fields is now offered online. From accountants looking for CPE credits (Payroll, 2011) to continuing education for nurses and doctors (“Mayo school of,” 2013), professionals are increasingly meeting their continuing education needs online.

While attitudes have been changing toward credit recovery, for the most part curriculum still reflects the bygone era of punishment for failure. While online institutions offer credit recovery as an option, the curriculum is not geared toward altering the approach to students needing credit recovery. In our experience, whether in brick and mortar summer school settings, FLVS credit recovery options, or APEX learning modes, students taking a course for credit recovery are often just taking the course again rather than taking a different or alternative curriculum. The elements that did not translate into student success on the initial try are still present in the second offering. Bill and Katie will still be behind grade level and Alex will still be apathetic. In order to improve student success rates and experience, credit recovery needs to be grounded in a separate curriculum specifically designed with pedagogically based best

practices spurring the design of standards based curriculum. To that end, we have created CRIT (Credit Recovery Instructional Treatment), an approach to delivering credit recovery.

Research based best practices have commonalities between sources. This table distills these commonalities into twelve needs for building a successful credit recovery program.

Table 1: Credit Recovery Research Based Best Practices

Practice	Source
One-on-one interactions between instructor and student.	Dynarski & Wood, 1997 Sinclair et. al., 1998 Thurlow et. al., 1995
Relationship-building between instructor and student.	Dynarski & Wood, 1997 Sinclair et. al., 1998 Thurlow et. al., 1995
Immediate intervention in the form of recognition and feedback.	Sinclair et. al., 1998 Thurlow et. al., 1995
Overt connection of coursework to real world skills.	Kemple & Snipes, 2000 Snipes et. al., 2006
Use of real world mentors to further outline the connections to useful skills.	Kemple & Snipes, 2000 Snipes et. al., 2006
Instructors need to have effective professional development geared to specific population.	Haycock, 1998
Curriculum delivered by a highly effective instructor.	Haycock, 2008

Practice	Source
Clarity in instruction and assignments.	Franco & Patel, 2011
Student centeredness, creating positive emotions around the course experience.	Jones, 2011; Robbins, 2011; Parks, 2011
Accommodations for various cognitive difficulties.	Zablocki & Krezmein, 2013 Swanson, 2008 Reynolds & Birch, 1982
Accommodations for student equipment and access.	Queen & Lewis, 2011
Sensitivity to student personal issues and how they affect work flow and quality.	Bridgeland, Jiulio, Jr. & Morison, 2006
Content and assignments that are highly interesting and motivating to the population both visually and cognitively.	Bridgeland, Jiulio, Jr. & Morison, 2006

A clear distillation of the research based components of successful credit recovery approaches is useful in understanding the creation of CRIT as well as elements necessary for implementation.

Beliefs

The design of our credit recovery approach stems from a short list of key beliefs for students, instruction, content, and professional development all of which are tied to research-based best practices. Many of these approaches are just general good design and practice but the use of good design and practice becomes more significant in credit recovery settings. Students able to succeed easily in a first time application of curriculum often can compensate for or overlook bad design within a course. Struggling students might be more affected by poor design as they are already having difficulty with content. This design approach transcends subject matter by focusing on delivery methods.

Students

- Students should be able to show mastery in core skills using recent work of their own creation.
- Students should not be discriminated against or treated negatively for personal, health, behavior, or access issues.
- All students should be allowed to work at their own pace as long as they make a plan with the instructor to show sustained learning.
- Students should use multiple formats and have multiple attempts to show mastery.
 - The CRIT model uses general assignments based on Common Core skills that can be applied to a wide variety of content. Students can work at a mutually agreed upon pace, submit work they have done in other contexts, choose from a wide variety of forms to showcase skill acquisition, and have multiple attempts at mastery.

Instruction

- The main goal of instruction is for the student to acquire a level of achievement balanced between proficiency and mastery of the core skills for the class (as denoted by the relevant Common Core Standards). Mastery can be defined as a score of 80% or better on assignments affixed to the core standards, mirroring current FLVS and state practices for defining mastery. Proficiency can be defined as a score of 60% or better on assignments affixed to the core standards mirroring current FLVS and state guidelines for passing a course.
- The primary functions of the instructor are to build positive relationships with students, create student success plans, monitor student progress, offer feedback with the goal of mastery not punishment, and work as an interpreter for the curriculum. Using these functions, the instructor will work to achieve the aforementioned main goal.
 - The CRIT model uses instructional coaching strategies. Teachers focus on skill acquisition and looking for student evidence of mastery in a wide variety of submission types.

Instructional Design

- Content should be visually appealing, easy to decode, and understandable.
- Content and assignments should offer student choice to engage student motivation.
- Content and assignments should be relevant to life outside of school and the content of that particular course.
- Content and visual elements of design should be easily updatable for changing trends in technology, education, or student population.

- There should be a clear connection between content, assignments, and skills needed for mastery.
- Content should not be repetitive. Core skills should be covered succinctly.
 - The CRIT model uses highly engaging and motivating assignments which are clear and connected to real world academic products.

Professional Development

- Instructors should be certified in the subject area the course covered, have several years of experience in the specific content, and be rated as highly effective.
- Instructors should be chosen based on their affinity for the philosophies of course design as well as a lack of negative feeling toward credit recovery as a program and the types of students generally seeking credit recovery.
- Instructors should receive direct course based professional development including examples/non-examples of student work, rubric training, and program philosophy training.
- Primary professional development should focus on developing relationships and assessing student mastery/proficiency.
- Secondary professional development should focus on creating student success plans, monitoring, and engaging students in the content.
- Enrollments for individual instructors should be kept low enough for instructors to foster relationships with their students.
- Extensive professional development should take place before instructors are paired with active students.

- The CRIT model uses relevant professional development to address the needs of a specific population. The CRIT model believes in dedicated separate placement and instruction for credit recovery students.

Here we will return to our students Mary, Bill, Alex, and Katie in order to discuss how CRIT differs in design and application by postulating how these students' experiences in online credit recovery would differ using the CRIT model. Students seeking online credit recovery under current models do not receive a reduced number of assignments. In the CRIT model, all students would experience a reduced work load allowing them to more quickly recover the credits they need. In current models of online credit recovery, assignments and curriculum are fixed; therefore, students cannot bring in work from previous attempts at recovery to meet the requirements in the second attempt. In the CRIT model, Mary would be able to bring in previous work to show mastery and further reduce assignment numbers as well as time to finish the class. Bill would have to show skill mastery to maintain enrollment in both current models of online credit recovery and CRIT, but in the CRIT approach, he would have far fewer assignments to complete, and they would have a real world connection that might resonate with him. Because of the reduced assignment numbers in CRIT, Bill would have to scramble for resources like internet access less often than a traditional online credit recovery program upping his chances for completion. Current modes of online credit recovery have a narrow definition of what student work constitutes completion of an assignment and thus skill mastery. Because the CRIT approach allows for a much wider variety in acceptable student progress, Bill's instructor would be open to accepting assignments in a different format such as video or pictures Bill could take with his cell phone. This would allow Bill to work around his lack of access or resources to show mastery and receive credit. In both the current online credit recovery approach and CRIT, Bill

and Katie would receive direct instruction in the skills they are lacking, specific feedback, assignment examples, and unlimited assignment submissions. CRIT would further provide Bill and Katie access to examples for each assignment and the ability to submit assignments in a variety of forms to combat being behind grade level. Both the current credit recovery approach and CRIT would provide Bill and Alex individual attention and personalized educational delivery, but CRIT adds specific teacher professional development in working with at-risk populations, smaller class sizes, and a more proactive communication policy making it harder to not perform.

Design Specifications for Courses

The state of Florida has requirements for students achieving credit in core graduation requirement courses. Any design of a credit recovery program must start with the state requirements for students to achieve credit. Table II below shows the state requirements and which research based approaches will help credit recovery students achieve these state requirements. Additionally, the table shows the reasoning behind the approaches, citation, and plan for implementation.

Table 2: Research Based Practices to Meet State Requirements for Credit Recovery

State Requirements for Students Seeking Credit	Research-based Approaches to Achieve State Requirements in Credit Recovery Curriculum	Reason for Research-based Credit Recovery Approaches	How Approaches Will be Implemented	Person or Department Responsible and Function	Evaluation and Monitoring
Proficiency or Mastery of Common Core Standards	Connect standards to real world applications to elicit motivation. Offer accommodations to all students; many chances to achieve and many optional formats to show proficiency/mastery	Students did not achieve proficiency on first attempt likely due to motivation, extenuating circumstances, or cognitive difficulties.	Visually stimulating and interactive online content to re-teach skills using a variety of approaches.	Curriculum Development Team: Subject Matter Expert (SME) – organizes/oversees creation/alignment. Writers –create motivating content. Web developers – create visual appeal.	Course will use student, parent, teacher feedback and success data to monitor student interest, effectiveness, and motivational aspects of the curriculum.

Requirements for Students Seeking Credit	Research-based Approaches to Achieve State Requirements in Credit Recovery Curriculum	Reason for Research-based Credit Recovery Approaches	How Approaches Will be Implemented	Person or Department Responsible and Function	Evaluation and Monitoring
Successful Completion of State Based Proficiency Testing*	Require mastery (80% +), wide variety of format options, and connection to real world applications. Frequent positive student interaction.	Students did not achieve proficiency or mastery on first attempt possibly causing students to be unsuccessful in state based testing. Use positive skill reinforcement.	Frequent student self-checks, informal teacher- student interaction to monitor understanding, multiple attempts at assignments.	Curriculum Department: content. Instructor: monitoring, corrective feedback, developing mastery, offering multiple attempts and format options.	Teacher based evaluation of student proficiency or mastery will be based on a standards aligned rubric that teachers have been trained to use.

*May not be applicable to all courses.

The previous table works as a road map for research based implementation as well as the rationale behind needing a specific approach. Differences in delivery of curriculum also separate CRIT from previous or current credit recovery approaches. Because previous approaches like LRC are no longer being used, they are not relevant here but will be discussed in the next chapter. Current approaches have an average assignment time of 60 minutes while individual assignments in CRIT are estimated at under an hour. Current approaches allow students to attempt semester exams twice while CRIT allows students to attempt semester exams up to four times. Current approaches require students to submit assignments in a specifically prescribed manner often by completing a worksheet. CRIT allows for a wide variety of student interpretation to evidence mastery. Current approach delivery requires teachers to answer attempts at communication within 24 hours while CRIT would require responses within 12 hours. Current approach delivery requires teachers to return graded work with feedback within 48 hours while CRIT would require responses within 24 hours. Current approach delivery assigns between 125 and 220 students to an individual teacher. Teachers are expected to meet or exceed credit goals in excess of 250 half credit enrollments a year while CRIT sets ideal teacher enrollment at 125 students. Current approach delivery does not enroll students to teachers based on credit recovery need, separate credit recovery students, engage in any professional development about the specific needs of credit recovery students, or inform teachers of a student's status as seeking credit recovery. CRIT would separately enroll credit recovery students in specialized, self-contained classrooms (known as shells) and engage teachers in extensive, research-based credit recovery professional development. Both current and CRIT approaches would allow for an unlimited number of assignment submissions and 24 hour access

to materials. These differences are also covered in Table 8: Three Recent Credit Recovery Approaches at FLVS Compared to CRIT.

Examples:

Having a background in English, we have created a sample curriculum based on the content of English 4 and included part of this in Appendix A (see Appendix A). This sample shows one unit of a dual unit credit recovery approach to English 4. This sample aligns with the overall credit recovery approach toward instruction in several specific ways. The table below turns the core beliefs (listed in bullet points above) to design principles supported by the research for best practices. This is paired with a specific example in an element or lesson from the created CRIT curriculum representing the most important aspects in the change of approach and relating back to the specifically created curriculum in Appendix A. The final column explains the connection between the specific example and the design principle. Each portion of chart is followed by a vignette explaining how the application would translate to each of the four student personas.

Table 3: Connecting Research with Practice: Student Focus

Design Principle	Research Basis	Sample Lesson or Element of Created Curriculum	Connection to Design Principle
Students should be able to show mastery in core skills using recent works of their own creation.	Student centeredness, creating positive emotions around the course experience (by limiting the amount of work students need to recreate). Accommodations for student equipment and access.	Element: If students have completed a research project meeting the requirements of the unit assignment within the last year, for any subject, they can submit it for the possibility of full credit or minor revisions.	Students can use previous work to show mastery of skills.

Because of Mary's exemplary work history (remember, she is our persona recovering from illness), she may have an assignment that already meets all qualifications and have no additional work to complete. If Bill (our twenty year old ninth grader) had started a research paper on the merits of drug legalization but had not been allowed to complete it because the teacher discouraged the topic, he could pick up where he left off and get partial credit for work he had already completed. If Alex (our apathetic towards school persona) had written an extensive and well researched history paper before his parent's divorce sent him into an academic downward spiral, he could use it to meet the requirements of this assignment. If Katie

(our self-described ‘bad test taker’) had a research paper that lacked some skill proficiency, it could be adapted and improved to meet the assignment thus lessening her work load.

Table 4: Connecting Research with Practice: Student Focus, continued

Design Principle	Research Basis	Sample Lesson or Element of Created Curriculum	Connection to Design Principle
Students should not be discriminated against or treated negatively for personal, health, or access issues; all students should be allowed to work at their own pace as long as they make a plan with the instructor to show sustained learning.	<p>Sensitivity to student personal issues and how they affect work flow and quality.</p> <p>Accommodations for student equipment and access.</p> <p>Academic support in the form of one-on-one interactions with focus on relationship-building between instructor and student.</p>	<p>Element: Students can work at their own pace providing they make a plan for how they will work with their instructor. This focuses on developing a relationship with the teacher so he/she know the needs of the student.</p>	<p>This allows for illness, personal issues, sport seasons, and other elements students might face.</p> <p>It creates a flexible schedule with focus on communication of student needs.</p>

If Mary becomes ill again, there will be a plan in place to suspend her course so she will not have to start anew when she recovers. If Bill is incarcerated again, he will not lose his progress. The instructor will be trained to reach out to Alex to combat his apathy and develop a plan for success. The instructor will work individually to improve Katie's skill acquisition.

Table 5: Connecting Research with Practice: Student Focus, continued

Design Principle	Research Basis	Sample Lesson or Element of Created Curriculum	Connection to Design Principle
Students can use multiple formats and have multiple attempts to show mastery.	Accommodations for various cognitive difficulties. Immediate intervention in the form of recognition and feedback.	Lesson 1: initial DBA. The rubric for the initial DBA prompts teachers who believe the student is not showing proficiency or mastery to offer further instruction then have the student review the material and call back. Elements: All lessons allow for multiple submissions. Assessment test banks are four questions deep allowing for four student attempts.	Allowing students multiple attempts to show mastery works to reduce anxiety of failure and increase likelihood for skill acquisition.

Mary can receive positive feedback for correct work to keep her motivated. The instructor can direct Bill's unacceptable research topic to more appropriate topics while keeping student interest. Alex can choose to do a science experiment rather than a research paper. Katie can take tests multiple times to combat her test anxiety.

Table 6: Connecting Research with Practice: Instructor Focus

Design Principle	Research Basis	Sample Lesson or Element of Created Curriculum	Connection to Design Principle
The main goal of instruction is for the student to acquire a level of student achievement balanced between proficiency (defined as a score of 60% or better on assignments) and mastery (defined as a score of 80% or better on assignments) of the core skills for the class (as denoted by the relevant Common Core Standards).	Academic support in the form of one-on-one interactions with focus on relationship-building between instructor and student.	<p>Elements: Assignments are geared to address specific Common Core benchmark skills.</p> <p>Assignments are not repetitive.</p> <p>All lessons allow for multiple submissions.</p> <p>Assessment test banks are 4 questions deep allowing for 3 student attempts.</p>	Having a clear and direct connection between assignments and skills without repetition allows the instructor a clearer picture of the proficiency/mastery level of the student allowing for focused instruction on student deficiencies.

Mary's instructor can clearly and quickly see her skill proficiency and then move on to the next element of instruction. Bill's instructor can pinpoint his areas of difficulty, trouble

shoot, and clear up misconceptions without a great deal of written work creating a less negative perception of Bill as a student. Alex's instructor can separate what is apathy from what in Alex's work is a lack of skill acquisition. Katie's instructor can focus on misconceptions and offer multiple opportunities for skill acquisition. Students and instructor are focused on content of the work rather than volume.

Table 7: Connecting Research with Practice: Instructor Focus, continued

Design Principle	Research Basis	Sample Lesson or Element of Created Curriculum	Connection to Design Principle
The primary functions of the instructor is to build positive relationships with students, create student success plans, monitor student progress, offer feedback with the goal of mastery not punishment, and work as an interpreter for the curriculum.	<p>Academic support in the form of one-on-one interactions with focus on relationship-building between instructor and student.</p> <p>Sensitivity to student personal issues and how they affect work flow and quality.</p> <p>Immediate intervention in the form of recognition and feedback.</p>	<p>Lessons 1 and 2: Students begin their work with detailed conversations with the instructor allowing the instructor to guide learning and get a sense of the students' interests.</p> <p>Elements: Students can develop their own work schedule providing it shows continued learning. Students can have multiple attempts to show mastery.</p>	<p>The goal of allowing the student to choose their own topics, sources, and work flow is to engender motivation in the student. Like an adult in the workplace, the student should see the instructor as a mentor and a guide to complete tasks that the student wants to complete on a mutually amenable schedule.</p>

Mary's instructor works as an editor encouraging publication. Bill's instructor allows him to pursue topics that might not be allowed in other classes to increase Bill's interest. Alex's teacher probes to find a topic about which Alex is not apathetic. Katie's instructor asks probing questions to help her think more deeply about the topic she has chosen.

The remaining two focus points for CRIT are in the construction of content and professional development. While these two elements are a step removed from the direct student-teacher relationship, they affect the overall student experience. How the content is presented adds interest eliciting student motivation (see Appendix B). The CRIT approach to professional development helps teachers understand the difference in thought with which the CRIT teacher-student relationship builds success (see Appendix C).

Old and New

In many respects the CRIT English 4 Credit Recovery curriculum looks much like any Standard English 4 class. The products are traditional in that students are analyzing the validity of resources, creating charts, writing drafts, peer editing, and presenting information in written form. Standards based education works to standardize the products students work on to show mastery. Where CRIT diverges is in the approach to these products. Repetition of assignments and skills is eliminated. Students are taking the course for credit recovery; they have had a wider exposure to the skills through the function of taking two courses in the subject. Focus is put on student interest. Often, in Standard English 4 classes, students are assigned research projects based on literature for which the student may or may not have an affinity. These traditional research projects work to teach important Common Core research skills that relate to common

real world skills but the student might avoid these projects or not achieve mastery on the skills due to disinterest or lack of understanding the connection between research about literature and general research uses. CRIT allows students to control the focus of research to engender motivation. Standard English 4 classes rarely allow for multiple submissions of all assignments including assessments. In doing so, CRIT mitigates some common causes for initial student failure including test anxiety and offers the accommodations of most IEPs to all students. The ability to redo assignments and assessments also provide student motivation in that the chance to achieve credit does not hinge on singular performance on a handful of key items.

CRIT further diverges in the approach to curriculum design by focusing on the character elements of end users. In designing credit recovery based on four distilled elements that often bar student success (Rumberger & Lim, 2008), we have attempted to mitigate the stumbling blocks of physical and mental health as well as motivation and ability.

English curriculum, and arguably the core curriculum of any subject area, is standardized. Academia has deemed a fairly prescribed body of knowledge to make up any course. States and districts have further codified standards, student requirements, and test scores to determine if a student receives credit for the course. A traditional approach to teaching these subjects works for the majority of students as evidenced by graduation rates that hover between 66-88% (Heckman & LaFontaine, 2010). When students, for whatever reason, are not successful in the standard curriculum with a traditional approach we cannot change the standards. They are set. We can change the approach with which we deliver content and the way we treat students.

Will this plan work for all students? The likely answer is no. Mary, because of her high motivation and previous good performance stands a good chance of success barring any health

relapses. Bill might react negatively to all the attention, focus, and demands, and end up dropping out or acting out in unacceptable ways. Alex runs the risk of avoiding communication and work until he is removed from the program. Katie might be so far behind grade level she cannot pass the exam. Any success rate would be an improvement, and no plan is foolproof.

CHAPTER 4: PROGRAM EVALUATION

History of Programs

There has been a long modern tradition of credit recovery in education starting, arguably, with the summer school concept. The growth of availability and reputation of online learning has coincided with a national downturn in the economy (Boston & Ice, 2011). This is especially explanatory of Florida's movement toward online credit recovery options as a large part of Florida school funding comes from property taxes (Office, 2013), and the collapse of the housing market in the state has severely shortened the educational revenue stream. Site based schools can and have in the majority of counties, lowered plant costs by eliminating site based credit recovery in favor of online learning (Smink & Deich, 2010; Gonzalez, S., 2012). Florida Virtual School (FLVS) was begun in 1997 and has provided all Florida residents with tuition free accredited courses online. For many years, FLVS was the only online option. Now many counties have franchised their own versions of FLVS, the majority of which run the same content on the same platform as FLVS. There are also for profit options such as K12 Inc. that offer credit recovery for a fee. Although other options exist, FLVS still provides a large percentage of the credit recovery for students in the state of Florida. Similarly, the number and percentage of students using FLVS specifically for credit recovery has been on the rise. The last research published specifically concerning FLVS showed that at least one third of all enrollments were credit recovery enrollments (Dessoiff, 2009). We can only assume this number will continue to grow due to increasing budget shortages and the ratcheting up of standards through the Common Core State Standards Initiative.

This chapter will focus on a blueprint for program evaluation to assess the current FLVS credit recovery system and compare it to CRIT. The American Evaluation Association (AEA), an international professional association of over 700 member evaluators, provides the framework and guidance for our evaluation program. The current system in place mirrors many nation-wide treatments, which allows for a broader application of our evaluation plan to more than just FLVS and/or English IV though we will focus our attention on this particular course for the purposes of this paper. In writing this chapter, we hope to provide our readers with specific evaluation questions, following the AEA's protocol, to ask when assessing their own credit recovery programs and provide for an example of how to compare their programs to CRIT with a specific focus on evaluating the research-based best practices that make CRIT unique in this credit recovery environment to their own current treatment approach. This is a model for evaluating credit recovery treatments in general.

Over the years, FLVS has had many approaches to credit recovery. In some ways the philosophy of FLVS' pedagogy has always had credit recovery at its heart. Students are allowed unlimited submissions and unlimited time to complete their work thus allowing students who might have not finished due to time constraints, test anxiety, or generally bad grades to complete a credit. More formally, in the spring of 2009, FLVS introduced a new program called Learning Recovery Pace (LRC). This was an option available to students who had failed an attempt at credit either in a site based school or online. Students were accorded a shortened list of assignments to complete in order to achieve credit. In spring of 2010, administration officially ended this program for a variety of reasons including a perception (it is unknown if this was based in research) that the program was not working to move students toward successful credit completion. Based on our shared experiences in this version of credit recovery, providing this

treatment to many students and not seeing an increase in completions nor student motivation to perform, we can agree with our administration that this particular version was not as successful as initially anticipated. In June of 2012, the Curriculum Department had dueling initiatives for credit recovery. A summer school class was developed for English 4 but preempted at the last minute in favor of changing the then existing English 4 class. The English 4 class was truncated from four units, representing roughly twenty assignments per unit, to two units. Completion of these two units would garner students a full credit for English 4 or English 4 honors. This treatment was only given to the English 4 course; other courses remained unaltered.

Unfortunately, this truncation did little to address the problem of student completion of the credit in that roughly the same percentages of students were completing the course successfully as before the changes. Though we cannot quantify this assertion through research at the present time, based on our shared experiences as teachers in this version of the credit recovery treatment, we can agree with these qualitative findings as students in both of our multiple classes remained in this credit recovery course just as long (if not longer) than the traditional course. We postulate that again, student motivation was unchanged and not addressed in this treatment option, which resulted in the less than satisfactory results. Further, the English 4 course that was truncated in 2012 was re-written in 2013. The new course returned to a higher number of assignments (35 per half credit, 70 for an entire credit of English 4) forsaking the reduced assignment approach. While a reduced number of assignments certainly addresses one element of motivation, this is a small aspect of the many elements (listed in Table 1 previously) needed for a credit recovery program to be successful.

To mitigate some gaps in FLVS' approach to credit recovery and the overwhelming need to have a successful program to serve the vast number and percentage of students in FLVS

enrolling for credit recovery, we have created a dedicated English 4 Credit Recovery Instructional Treatment (CRIT) based on research based pedagogical practices.

In order to have a better understanding of the different approaches attempted and their merits, here is a comparison table. Please note that the LRC pace and truncated courses are no longer offered as options, and current models of English courses have returned to previous work load levels. All numbers are based on .5 credit as students often are looking for only one semester of credit recovery. Many of the programs have similar profiles. Aspects of each program have met some of the twelve best practices outlined in Chapter Three, Table 1. However, CRIT differs in bringing all of these practices together in one approach.

Table 8: Three Recent Credit Recovery Approaches at FLVS Compared to CRIT

Criteria	LRC pace (discontinued)	English 4 truncated (discontinued)	Current approach of retaking entire course (in use)	CRIT (proposed)
Number of assignments	18	20	35	20
Multiple standards assessed	Yes	Yes	Yes	Yes but to a higher degree
24 hour access	Yes	Yes	Yes	Yes
Teacher communication response time	24 hours	24 hours	24 hours	12 hours
Grading time	48 hours	48 hours	48 hours	24 hours
Assignment submissions	Unlimited	Unlimited	Unlimited	Unlimited
Test attempts	2	2	2	4
Average assignment time	60	60	60	40
Acceptable assignment formats	Narrow	Narrow	Narrow	Wide

While these are not the only differences between the credit recovery focused approaches past and present, they represent a few of the main concerns connected by research to reasons students fail. It is important to evaluate current and proposed treatments. This participant driven evaluation outlines both FLVS's current approach to credit recovery and how our experimental treatment would be evaluated for success.

Shared Program Goals

The overarching goal of the English 4 Credit Recovery Program is to have students successfully complete their second or subsequent attempt at achieving English 4 credit. This overarching goal is to be achieved by meeting the following parameters. The program limits curriculum to a single presentation of required standards. It limits the number of assignments a student must fulfill to meet these standards. The program gives students easy access to material. It provides students with quick response and support; with quick grading and credit turn around. Significantly, the program provides multiple chances to achieve credit.

Shared Target Outcomes

In the macro vision of these programs, target outcomes can be measured by the percentage of students successfully completing the course in the first attempt. A successful percentage would be around 90%. Additionally 70% of students should complete course work in a 2-6 week window. These targets parallel goals established in other credit recovery approaches developed by FLVS. The administration of LRC pace focused on students completing in a six-week window. Setting successful student completion percentage levels began with reviewing the current national graduation rate of between 66% and 88% (Heckman & LaFontaine, 2010). If graduation is the standard for success, that percentage can be translated throughout the body of

required courses as a measure of standardized success rates. We increased expectations to 90% based on the fact students had already been exposed to course materials and the increased support network developed in a specifically credit recovery based approach.

Steps to Achieve Target Outcomes in the Current FLVS model

The following considerations must be met. The number of assignments will not exceed 20. Individual assignments will meet the criteria for multiple standards. Students will have access to all coursework and reading 24 hours a day. All student communication will be answered within 24 hours of submission. Grading feedback will be given within 48 hours. Students will be given unlimited submissions for assignments. Students will be given two attempts at all tests and quizzes including semester exams.

Steps to Achieve Target Outcomes in CRIT

CRIT requires the following considerations. Estimated assignment completion times will be under one hour. Assignment criteria will accept a wide range of options for evidence of mastery. Only students needing credit within the current academic year will be accepted into the credit recovery program. All student communication will be answered within 12 hours of submission. Grading feedback will be given in 24 hours. Students will be given unlimited submissions for assignments. Students will be given four attempts at tests and/or quizzes. Students will be provided with four attempts at semester exams. The number of assignments will not exceed 20. And significantly, individual assignments will meet the criteria for multiple standards.

Curriculum by and large does not make any accommodation for the credit recovery student. While online institutions offer credit recovery as an option, the curriculum itself is no

different for the credit recovery or first time student. Students are taking the course again or a different version of the course in a different medium, online rather than face to face as an example. The problems students had the first time have not been mitigated. In order to improve student success rates and experiences, credit recovery needs to be separate from other curriculum treatments, research based, strategically designed to mitigate common reasons for failure, and staffed with teachers properly trained, who are aligned to the principles and goals of credit recovery. To that end, we are proposing a criteria and research-based approach to evaluation of these two programs to be compiled by our evaluation team.

This ideal evaluation team would include a blend of both internal and external evaluators. Internal evaluators would include personnel from the Curriculum, Instructional, and Enrollment departments of FLVS in order to compile the necessary data and provide inside understanding paramount to this unique school environment. However, as CRIT is a treatment program intended to apply to any and all courses, in all schools, external evaluators must be present and active in this process of assessing the data collection in order to provide objective recommendations and results for the program evaluation. Two options exist for facilitating external evaluation. External evaluation could be completed by a professional external evaluator alone or in conjunction with a representative from the state Department of Education. The latter option has the potential to have more pressure associated with the process because of the inclusion of state oversight. At the same time, state guided oversight might add an element of authority to the evaluation and changes stemming from the process. This blended team of internal and external evaluators will therefore be able to access their own knowledge of the intricacies of FLVS as well as the overarching education world as a whole in providing useful data and recommendations desired in this program evaluation.

Evaluation Questions to address for both the current FLVS Credit Recovery model and CRIT

Student Success:

- What percentage of students is successful in receiving credit with FLVS on their first attempt?
 - Data Source
 - Quantitative: Internal student management system (VSA) records for student completions and credit recovery status.
 - Data to be Collected
 - Quantitative: Total number of first time student enrollments compared with total number of students completing .5 credit within the study window.
- What percentage of students is successful in receiving credit with FLVS on their second attempt?
 - Data Source
 - Quantitative: Internal student management system (VSA) records for student completions and credit recovery status.
 - Data to be Collected
 - Quantitative: Total number of second attempt credit recovery enrollments compared with number of second attempt credit recovery students completing .5 credit within the study window.

- What percentage of students is successful in receiving credit with FLVS on their third or subsequent attempts?
 - Data Source
 - Quantitative: Internal student management system (VSA) records for student completions and credit recovery status.
 - Data to be Collected
 - Quantitative: Total number of third attempt credit recovery enrollments compared with number of third attempt credit recovery students completing .5 credit within the study window.
- What percentage of students is unsuccessful in receiving credit with FLVS?
 - Data Source
 - Quantitative: Internal student management system (VSA) records for student completions and credit recovery status.
 - Data to be Collected
 - Quantitative: Total number of student enrollments compared with total number of students completing .5 credit within the study window.
- Is there a significant change in student success rates between traditional credit recovery delivery and CRIT?
 - Data Source
 - Quantitative: Internal student management system (VSA) records for student completions and credit recovery status.

- Data to be Collected
 - Quantitative: Total number of student enrollments seeking credit recovery. Total number of students assigned to the traditional credit recovery treatment. Number of those students completing a .5 credit within the study window. Total number of students assigned to CRIT treatment. Number of those students completing a .5 credit within the study window.
- What elements of the credit recovery presentation do stakeholders consider to be factors leading to the success of the student?
 - Data Source
 - Qualitative: Internal stakeholder survey system (Mindshare).
 - Data to be Collected
 - Qualitative: Stakeholder answers to survey questions. Sample survey question: What aspects of the course most helped you to succeed?

Student Placement:

- How well advertised is the credit recovery program?
 - Data Source
 - Qualitative: Internal stakeholder survey system (Mindshare).
 - Data to be Collected

- Qualitative: Stakeholder answers to survey questions. Sample survey question: How did you hear about the credit recovery program?
- Do students know about the credit recovery program when they enroll for any class that is a graduation requirement?
 - Data Source
 - Qualitative: Internal stakeholder survey system (Mindshare).
 - Data to be Collected
 - Qualitative: Stakeholder answers to survey questions. Sample survey question: Is the class you are taking a graduation requirement? If yes, survey sends the student to a follow up question. When you enrolled in this class, was the credit recovery program explained to you?
- Are students being properly placed?
 - Data Source
 - Quantitative: Internal student management system (VSA) records for student enrollment, completions, and credit recovery status.
 - Data to be Collected
 - Quantitative: Number of students seeking credit recovery compared with the number of students enrolled in both credit recovery treatments.
- When is student enrollment in credit recovery programs the heaviest?

- Data Source
 - Quantitative: Internal student management system (VSA) records for student enrollment, completions, and credit recovery status.
- Data to be Collected
 - Quantitative: Total number of students enrolling for credit recovery for each month.

Rationale:

- Do student survey results give patterns of answers for why students fail in their initial attempt at receiving credit?
- Do student survey responses show patterns in what elements of curriculum, presentation, and online venue help students to be successful in obtaining credit, staying motivated, or clarifying their understanding of the subject?
- Do student survey responses show patterns in what elements of curriculum, presentation, and online venue inhibit student obtainment of credit, motivation, or understanding?
- Are there patterns of survey responses that can be linked to probability of student success or failure?
- Is there a significant difference in student survey responses between traditional credit recovery delivery and CRIT with regards to elements of curriculum, presentation, online venue, motivation, and/or understanding?

Data Sources

Quantitative: FLVS's student management system called the Virtual School Administrator (VSA) tracks all of the matrices needed to determine previous student enrollment with FLVS, success rates, reasons for removal from courses, performance data, and demographic information although some of the demographic information is the product of student self-enrollment/self-reporting and is not verified by the site based school nor FLVS.

Qualitative: FLVS uses the Mindshare system to track exit surveys for students and parents. Students are pushed to an exit survey when they complete .5 credits with FLVS or are removed from the course for any reason. Guardian accounts are given a link to an exit survey when students complete a .5 credit with FLVS or are removed from the course for any reason. Surveys are voluntary and anonymous. Additionally, the VSA can be mined for other qualitative data such as reasons (student or teacher reported) for removal from a class.

Data to be Collected

Quantitative:

I. For study purposes, because many students only need credit recovery for .5 credits and funding is based on .5 credits, enrollments will be considered as .5 credit either for the 1st or 2nd half of the class. English 4 Credit Recovery Enrollments Data to be collected would include the following metrics. The total number of English 4 enrollments from July 1st through June 15th for the implementation school year should be quantified. Students cannot complete an enrollment more quickly than two weeks per .5 credits due to NCAA compliance regulations. By cutting off the evaluation enrollment at June 15th, students enrolling without enough time to finish the

course will not be counted in the evaluation. The total number of English 4 credit recovery enrollments from July 1st through June 15th for the implementation school year, both verified and unverified, should be identified. The total number of enrollments self-selecting credit recovery for the implementation school year should be quantified. The total number of school enrollments for credit recovery students in the implementation school year will be collected. The total number of requested moves from regular credit to credit recovery should also be identified. The total number of non-verified credit enrollments (sources that cannot be verified like home school credit recovery) needs to be identified. The total number of documented credit recovery enrollments (approval or placement by a site based guidance counselor) should be quantified. The total number of documented incorrect enrollments needs to be identified. The total number of students finishing .5 credits in 2-6 weeks, in 6-10 weeks, and in 11 weeks or longer also needs to be calculated.

II. English 4 Credit Recovery Yield Data to be collected would include the following metrics.

The total number of English 4 credit recovery enrollments (verified and unverified); the total number of students enrolled past their grace period; the total number of students removed from the class before the end of grace period; the total number of students removed as NAC (never activated); the total number for each reason given for NAC withdraw (20 options provided in a drop down menu); the total number of students removed as either WP or WF (withdraw pass or withdraw fail); also, the total number for each reason given for withdraw category (20 options provided in a drop down menu).

III. English 4 Credit Recovery Completion data to be collected would include the following metrics. The total number of English 4 credit recovery enrollments (verified and unverified); the

number of students completing at least .5 credit with a passing grade (60% or higher); and the number of students completing with a failing grade (lower than 60% or a C/F designation).

Collection Methods:

Quantitative data will be compiled by the evaluation team in chart form and presented in a side-by-side comparison to better focus attention on the two different credit recovery treatment plans. Sample charts might look like this:

Table 9: Sample Quantitative Data Chart

Treatment	Traditional	CRIT
Percentage of successful first time credit recovery students	30%	45%
Percentage of successful second time credit recovery students	10%	21%
Percentage of successful third time credit recovery students	8%	12%
Percentage of successful unsuccessful in receiving credit	12%	7%
Percentage of students correctly placed in credit recovery	88%	88%
Month with highest enrollments	May	May

Quantitative data will be analyzed for patterns of response overall and within various stakeholder groups. For example, students indicating in their responses that the relationship with

the teacher was a prime reason they were successful in obtaining credit would be grouped together as a percentage as would those indicating that curriculum was a prime reason for success. Student patterns would be compared to other stakeholder patterns like those of parents or teachers. This data could also be compiled in a chart similar to the one above.

Qualitative:

I. The evaluation team will use the FLVS Mindshare exit interview database as a source for qualitative data. They will work with the database team to create four distinct exit surveys. Surveys will have ten questions each, be automatically sent in email to student and guardian upon either completion or removal from the class (as they are now), and have one reminder a week after the initial contact. Due to the vast numbers of students taking credit recovery at FLVS, an acceptable response rate will be above 30% for each group. Surveys will be voluntary and anonymous addressing these specific groups and for the following reasons. Students successful on their first attempt at credit will be surveyed in order to get student feedback on elements they considered successful and unsuccessful in the class. Students unsuccessful at their first attempt at credit for any reasons will be surveyed in order to get student feedback on elements they considered successful and unsuccessful in the class. Stakeholders (parents and guidance) of students successful on their first attempt at credit will be surveyed to get their feedback on elements they considered were a help or hindrance to the student. Stakeholders (parents and guidance) of students unsuccessful on their first attempt at credit will be surveyed to get their feedback on elements they considered were a help or hindrance to the student.

II. Voluntary and anonymous surveys will be created and distributed for teachers of the English 4 Credit Recovery Program and CRIT and their supervising instructional leaders (ILs) at the end of

this year-long testing. Survey questions would cover teacher self-efficacy toward understanding and delivering the methods of treatment as well as professional beliefs about the success of various curricular elements. Sample questions might include: What elements of the course do you believe are most responsible for student success? Were there concepts or assignments that most students had difficulty completing?

Data Collection and Management Plan

The evaluation of both the current English 4 Credit Recovery program and the CRIT Pilot will be conducted in part as a summative evaluation of the events of the initial year of implementation. The reasoning for the choice of summative evaluation is the static nature of FLVS online curriculum. Development is often an expensive and lengthy process. Elements of design are not easily maneuvered. Changing elements of the content becomes virtually impossible once students are in the class, so the program must run the course of its inception in the first pilot year. While the evaluation is summative because it looks at the summation of the initial year of implementation, the evaluation takes on a formative roll for improving implementation over the second and subsequent years. In order to provide analysis, data, and evaluation to improve the program implementation by the following school year, the evaluation must be complete by the end of August to ensure enough turnaround time for changes before student enrollment in the retrofitted shells of the course by October 1st (primary shells of the course will run in the interim to ensure students are not denied the opportunity for credit recovery). Our evaluation question identifying the heaviest enrollment time for students seeking credit recovery will assist us in recalculating these dates if necessary, but as an initial evaluation of the program, we can presume, based on our own shared, extensive experience with online

education and school in general, that enrollments are heaviest in the late spring and lightest in early fall. Students are trying to complete their credit recovery over the summer; once the traditional school year begins, most students are working on current year courses and may not be aware of their need for credit recovery until October or later. Because of these elements, data collection will be mostly limited to the last two weeks in July. Some data will be collected intermittently throughout the year. For example, exit surveys of students and stakeholders who finish the class at variable times during the year. This data will be stored within the system for summative data collection at the end of the program.

All data delivered through FLVS systems will be anonymous as a function of the data pull. Data pulls (including Mindshare survey data) are done by querying the data to find specific information (for example, number of students completing English 4 Credit Recovery on their first attempt). Data pull requests will never include a request for student name making all data pulls, including surveys, anonymous. To avoid any unintentional naming of students, Mindshare surveys will include only one free response section where respondents can type freely. Directions will include a warning not to include student names. Written response survey data will not be pulled individually but rather for patterns of repeating responses using a data pull program looking for repeated words and phrases to the writing.

Data will be stored digitally following information technology best practices for data retention. Hardcopy of reports will be delivered to FLVS upon request.

Outcomes

As a result of compiling this quantitative and qualitative data, the evaluation team will determine the relative effectiveness of the current FLVS model of credit recovery as well as the

newly developed CRIT program. FLVS will therefore be able to determine which format would best serve their individual student populations and understand the merits of both programs. We believe that CRIT will prove to become more successful for credit recovery students than current practices due to the research-based criteria involved in its creation. Quantitative data will likely show an increase in student success rates of those who complete the CRIT program over those who complete the current FLVS mode of credit recovery. Qualitative survey data will likely link the success of these students to research-backed characteristics such as the curriculum, presentation, and teacher contact, which are the bedrock of the CRIT program. This same evaluation will be able to apply to other schools' credit recovery programs as the majority of the nation employs a similar treatment as does FLVS with regards to this particular student population. Through the careful administration of a planned program evaluation as outlined above and recommended by the AEA, any school may make this same comparison of their existing credit recovery framework to CRIT, with similar results suggesting CRIT to be the credit recovery treatment of choice across the country.

Research Based Best Practices

One overwhelming reason for creating CRIT involves the support of research in its basic formation. The following chart provides these research-based best practices to evaluate in both FLVS' current model and CRIT:

Table 10: Research Based Best Practices to Evaluate

Practice	Source
Academic support in the form of one-on-one interactions with focus on relationship-building between instructor and student.	Dynarski & Wood, 1997 Sinclair et. al., 1998 Thurlow et. al., 1995
Immediate intervention in the form of recognition and feedback.	Sinclair et. al., 1998 Thurlow et. al., 1995
Overt connection of coursework to real world skills.	Kemple & Snipes, 2000 Snipes et. al., 2006
Use of real world mentors to further outline the connections to useful skills.	Kemple & Snipes, 2000 Snipes et. al., 2006
Instructors need to have effective professional development geared to specific population.	Haycock, 1998
Curriculum delivered by a highly effective instructor.	Haycock, 2008
Clarity in instruction and assignments.	Franco & Patel, 2011
Student centeredness, creating positive emotions around the course experience.	Jones, 2011; Robbins, 2011; Parks, 2011
Accommodations for various cognitive difficulties.	Zablocki & Krezmein, 2013 Swanson, 2008 Reynolds & Birch, 1982

Practice	Source
Accommodations for student equipment and access.	Queen & Lewis, 2011
Sensitivity to student personal issues and how they affect work flow and quality.	Bridgeland, Jiulio, Jr. & Morison, 2006
Content and assignments that are highly interesting and motivating to the population both visually and cognitively.	Bridgeland, Jiulio, Jr. & Morison, 2006

Each of these twelve (12) metrics will be assessed in this evaluation as well using both quantitative and qualitative data.

Limitations

Limitations of this evaluation include the fact that it will not evaluate the alignment to standards of the curriculum or content. (This is ensured by the Curriculum Specialist at development and evaluated in the school accreditation process.) This evaluation will not be able to ensure results from all participants, specifically in that it will not be able to verify student's self-reported data. It will not be able to account for internal transfer of students who may or may not have already taken the English IV course and thus may or may not be a true measure of FLVS's current Credit Recovery model or of CRIT. It will not keep any records nor make any recommendations, observations, or suggestions about individual students, teachers, or stakeholders. Additionally, this evaluation does not intend to evaluate the success of the program by criteria or standards outside of the ones defined by FLVS for the program.

The evaluator reserves the right to deny any client request based on ethical or practical grounds as expressed and/or implied in the professional standards and practices of the American Evaluation Association.

Conclusion

At this point, it is imperative that we reiterate the non-traditional aspect of this dissertation in practice as it applies to this program evaluation even as we attempt to follow AEA protocol. In a perfect world, we would have run a pilot program following our implementation plan and evaluations described here in Chapter Four, delivering up a wealth of data to the academic community to flesh out our conclusions but the means were not available to us. We believe our work in the areas of design study, evaluation, and implementation planning to be soundly useful both in the academic and organizational context as well as generalizable to online education.

We find ourselves again emphasizing the fact that though this evaluation plan is specific to our particular school site, FLVS, the basic structure and blueprint of this model can be used by any organization, whether physical (brick and mortar), virtual (online), or even blended (a mix of both physical and virtual). The in-depth analysis of qualitative and quantitative measures proposed here, with the additional research-based criteria discussed in the chart above, ensure that any school can determine whether the goals of their own credit recovery approach are being met. Schools can then compare these results to the CRIT treatment proposed, after their own pilot testing, and discover that CRIT will work in their individual school as well. The very design of CRIT is to be applied to any course, in any school environment, as it focuses on research-

based best practices for this specific student population all too often ignored by educational reforms.

CHAPTER 5: PROGRAM IMPLEMENTATION

Centering Purpose

The purpose of this chapter is twofold. On one level it works as a road map for the FLVS organization to implement a CRIT pilot making much of the material organization-specific. However, on another level, this is a large scale implementation of the ADDIE model, which is generalizable to a variety of other venues. Many FLVS departments or structural developments discussed in this chapter have counterparts in various organizations, physical and virtual, making this implementation plan generalizable to other contexts with minor tweaking.

Our goal is not to show how to implement specifically our plan, although we do advocate for CRIT as it is research based, but to give a structure to implement any systematic credit recovery plan. Goals include a thorough analysis of what is being done, a structured approach to implementing new elements, and a systematically thorough analysis of results by all stake holding groups. It is our belief that many programs fail not because they lack beneficial qualities but because they are implemented and abandoned in fits and starts without short and long term plans.

Looking at FLVS Implementation

Although by many accounts credit recovery is a substantial portion of FLVS enrollments (FLVS, 2012; Dessoiff, 2009), currently FLVS has no dedicated curricular or pedagogical approach with which to address the differing needs of the credit recovery student. Unlike other entities offering credit recovery in a traditional brick and mortar setting, FLVS has the bureaucratic organization to create specific curricular approaches. FLVS employs a Curriculum

Department with a highly experienced, structured, and efficient curriculum design process. Because the content is online, the staff already employed, and the resources already present (although perhaps not allocated to this particular task), FLVS could be on the cutting edge of credit recovery curriculum by developing, testing, and continually updating a data based approach.

At this time, students needing credit recovery take the same classes as first time students. Previous attempts at implementation for credit recovery policy have included some of the twelve core elements needed for successful credit recovery programs listed in Chapter 3, Table 1 such as a reduction of total student work load. However, these previous attempts at modification did not result in specific credit recovery course work.

Many elements of the organizational context are working very well and can be adapted to the purpose of CRIT implementation. FLVS has a highly codified and well run curriculum development process. Much of the structure and procedure defined in this implementation plan follows the existing development process because it is sound, but also because it is so deeply entrenched at FLVS as to be all but unchangeable. Where we break from this process is in the inputs and outcomes evaluation. In previous credit recovery approaches the design inputs were not wholly based on researched aligned inputs. Programs were not implemented with plans for analysis of outcomes and included little professional development or sustained support. Implementation cycles were truncated often lasting less than a year. After implementation, programs were either not evaluated systematically or the evaluation was not made public to stakeholders. Programs were abandoned without analysis or adaptation. We believe that the implementation of a credit recovery program needs to be overt, systematic, data based, and

transparently reflective for all parties involved. To that end, we propose the following implementation plan to analyze credit recovery options at FLVS.

The first step of implementation would be to use existing student data to analyze which core graduation requirement classes had the highest rate of student failure. This would be data collected from students self-reporting as credit recovery, students with multiple internal enrollments in the same class, and from partner district data showing students enrolling due to failure in the traditional school setting. This data should lead the organization to pick three to five high needs credit recovery areas. While this data exists currently within the system, it has not been pulled together in this way or analyzed with this purpose. Using existing data in this way would ensure proper focus for credit recovery efforts.

After determining on which courses the organization should focus, the final credit recovery approaches would need to be developed for each selected course. Three of the following approaches are already in use throughout all subject matter delivered in the organization so they would take very little retrofitting. The experimental approach, CRIT (Credit Recovery Instructional Treatment), would need to go through the standard new course development procedures existing currently at FLVS and described in detail here. Once administrative approval is given to develop each course, the Curriculum and Project Management Department administrators put together a leadership team to begin the project. This leadership team, usually comprised of a Project Manager and Curriculum Specialist, work at the outset of the project to further refine the scope of the project within the parameters given by the administrative course development approval. Then this leadership team works with the Finance Department to develop a budget to meet the scope of the project. Once the scope and budget is in

place, the Curriculum Specialist develops a standards based blueprint for development while the Project Manager (PM) works to assign Web Developers, Subject Matter Experts (writers), Psychometricians, Internal Reviewers, External Reviewers, assistants, and Proofreaders to the team. Once assembled and armed with the blueprint, the Project Manager, with guidance from the Curriculum Specialist (CS), puts together a timeline of deliverables and dates. At this point, the Subject Matter Experts (SMEs) go into action, and then all other positions fall into place as the writers knit content from the blueprint. In general, the process runs thusly with scheduled meetings monthly to discuss the progress of production:

1. SME works with Web Development team during content writing to determine look and action of interactives, video, audio, as well as course visual appearance elements. Content writing deadlines are met for individual chunks of the project (usually a module/unit of the project) – content is delivered simultaneously to the CS, Psychometricians (if the content is assessment), and PM.
2. CS, Psychometricians, and PM (if the PM has content knowledge, they generally weigh in on the writing but abstain if they do not) review content including editing notes. Once this deadline is met, these edits are compiled into one document by the PM who also keeps copies of each drafting. The document is sent back to the SMEs for rewriting.
3. SMEs make changes or refute the validity of change requests with support. These changes or explanations are submitted by the re-writing deadline and are accepted or further discussed and edited by the CS, Psychometrician, and PM. Once a draft is accepted, it goes through Web Development. A proof shell, a copy of the course created specifically for review, is created and all persons are given access to that shell. Then that access is extended to the Internal Reviewer

who makes comments on the document and submits simultaneously to CS, PM, and Psychometrician (if the content is assessment) according to PM deadlines.

4. CS, PM, and Psychometrician decide to accept or decline Internal Review comments one by one. PM compiles decisions and rationale on intermediary document. If the changes are substantial, the rewrite goes back to the SMEs. If the changes are minor, the CS might address them.

5. When this stage is reached where at least half of the slated development modules are completed, the manuscript is sent to external review and proofreading (an externally contracted company) often simultaneously. When the proofreading manuscript is returned, usually SMEs are given the manuscript to make the changes or refute them with grounds (rare). External review comments are ordered and prioritized by the PM then presented to the team for acceptance. Point people from the department affected are assigned to address specific external review points. For example, a member of the Web Design team would address external review comments dealing with ease of interactive use.

6. At this point, the course is usually submitted for some beta testing, but for the purposes of this implementation, the beta testing might be done through the teacher training cycle with instructors. The course is then released with continuing support for any content or web development items.

The estimated time for delivery on CRIT courses would be seven months. While new course development can often take longer, CRIT courses will be smaller in scope shortening the estimated time of development.

The following step of implementation would be to create concurrent course versions (called shells) for each of these approaches. Each shell would represent a different approach to delivering curriculum and instruction. While most of these shells exist currently, they have not been systematically studied side by side for comparison. Further, they are not separated out into individual shells. Students taking the course for honors, regular, or credit recovery are all lumped into one shell where they mingle with all levels of students. The function of examining a variety of approaches with a variety of students and instructions is to produce data where none exists. To determine what approaches are successful for which students, approaches need to be separate and base line data needs to be gathered from all approaches. Students meeting the qualifications for each shell would be randomly assigned.

The following table codifies the four curriculum approaches to be run concurrently: honors, regular, current credit recovery approach, and CRIT. For each curricular approach, the table shows appropriate accommodations, the student population to be assigned to that treatment, and the teacher specifications for instructors implementing the curricular approaches.

Table 11: Defining Curriculum Approaches

Course Type	Curriculum Offered	Accommodations	Student Population	Teacher Specifications
Honors	Current honors/advanced FLVS curriculum	Students may resubmit assignments but not assessments. *	1 st time students never exposed to the grade level or curriculum representative of an “average” honors student achieving grades of C+ in several honors classes previously. *	Teachers evenly split between those expressing positive or negative attitudes toward honors curriculum* equally chosen from highly effective, effective, and needs improvement evaluation categories.
Regular	Current standard FLVS curriculum	Students may resubmit assignments, can take minor assessments up to 4 times, and can take exams 2 times.	1 st time students never exposed to the grade level or curriculum representative of an “average” student achieving a C or higher average in regular courses. *	Teachers evenly split between those expressing positive or negative attitudes toward regular curriculum* and equally chosen from highly effective, effective, and needs improvement evaluation categories.

Course Type	Curriculum Offered	Accommodations	Student Population	Teacher Specifications
Current Credit Recovery Approach	Current standard FLVS curriculum	Students may resubmit assignments, can take minor assessments up to 4 times, and can take exams 2 times.	Students are repeating the course either from a traditional or virtual school setting representative of an “average” student who experiences failure on an occasional but not consistent basis. *	Teachers evenly split between those expressing positive or negative attitudes toward credit recovery.* Teachers equally chosen from highly effective, effective, and needs improvement evaluation categories.

Course Type	Curriculum Offered	Accommodations	Student Population	Teacher Specifications
CRIT	Newly developed curriculum (see Appendix A for sample)	Students may resubmit assignments, can take minor assessments as well as exams up to 4 times.	Students are repeating the course either from a traditional or virtual school setting representative of an “average” student who experiences failure on an occasional but not consistent basis.	Teachers evenly split between those expressing positive or negative attitudes toward credit recovery. Teachers equally chosen from highly effective, effective, and needs improvement evaluation categories.

*Represents a change from current course delivery.

The previous table can be used as a blueprint to partition instructors and students. It is also useful to understand the accommodations given to each group and thus understand the rigor of each curriculum application. This is also veering away from current organizational practice which places students based on their own request or the request of their physical school guidance counselor. In current FLVS practice, teachers are loaded with students based on student need and available space in teacher shells.

In partitioning curriculum, students, and teachers in this new way, data could be collected to compare each approach. By including a variety of instructor proficiency levels and attitudes, data can be collected to see if there is a significant difference in student achievement based on the instructor variable for each curricular approach. By comparing similar student populations in both of the credit recovery methods, data can be collected to compare the success of the current approach in comparison with the developed approach to credit recovery. At the same time, clean data can be taken to determine curricular failure rates for honors and regular courses. Currently, this data is tainted by self-identification errors, lack of data from student districts, and non-inclusion of attempts removed from the transcript for a variety of reasons. The importance of obtaining this data is to best serve students by ensuring students are receiving the most appropriate treatment allowing for the greatest level of success.

The next step to implementation would be to create a bank of teachers for each of the four approaches. It would be good to have at least two teachers in each category to help suppress any effect on the data for individual teacher personality. At first glance, two teachers in each category seems too small a number to effectively mitigate the problem of teacher personality effect on the pilot. An increase in teachers and general number of people, students and teachers, involved in the pilot would work to further reduce the effect of any one person on the data and make the pilot more cost effective; however, extending the study beyond a range of ten to fifteen percent of students in that course would change the small scale evaluation into a full blown implementation plan thus reducing the chance at side by side evaluation of proposed with existing treatments. It would be better to begin with a small bank of teachers and students. A bank of teachers for each curriculum treatment grade level would look like this:

Table 12: Treatment Teacher Bank

	Teachers With a Positive Attitude Toward Curriculum	Teachers With a Negative Attitude Toward Curriculum
Highly Effective Teachers	2 (Group 1)	2 (Group 2)
Effective Teachers	2 (Group 3)	2 (Group 4)
Needs Improvement Teachers	2 (Group 5)	2 (Group 6)

Each curriculum treatment would involve twelve teachers paired in groups of two. There would be forty-eight teachers in each curricular approach making twenty-four groups of two. Currently, FLVS employs roughly 200-300 teachers in each major subject area. For example, there are roughly 250 teachers employed who are certified and teaching English 6-12 (Emery, 2013). Teachers chosen to deliver instruction for the curriculum treatments would likely need to deliver all four curricular treatments because there would not be enough teachers to have a bank of twelve for each treatment (a total of 192) in all subject areas and still maintain other non-treatment offerings. While these teachers currently serve three of the four curricular approaches, they are all mixed in one shell. The new approach would give teachers four separate shells populated with only the type of student to be studied in that particular shell. For example, the honors shell would be a separate class holding only honors students. Initially, this pilot implementation might seem overly expensive, but many of these elements already exist. Partitioning shells and teachers would merely be a reorganization of resources that already exist. Creating a new copy of an existing shell for a teacher would be negligible in cost and take roughly two to three hours of development time (Name Withheld, 2013). The true cost in implementing CRIT in an online setting would be the initial course development cost and the

increased number of teachers, which would result from new, low teacher to student ratios. In a traditional school implementation, the significant cost would also be curriculum development and increased need for teachers. In a traditional setting, some curriculum development cost could be mitigated by having department heads work with small writing teams in summer workshops to create curriculum.

Teachers involved in the curriculum treatments would need to teach a reduced number of students in four approaches to give them time to fully analyze student progress and familiarize themselves with the curriculum during the training process. This would be a break from current practice. Teachers should be chosen for the grade level they have the most experience teaching to ensure the highest familiarity with the subject and curriculum.

Table 13: Teacher Organization Chart

	Honors Curriculum Treatment	Regular Curriculum Treatment	Current FLVS Approach to Credit Recovery	Research- Based Approach to Credit Recovery	Total Number of Teachers for Each Subject
English I	Groups A1-F1	Groups A1-F1	Groups A1-F1	Groups A1-F1	12
English II	Groups A2-F2	Groups A2-F2	Groups A2-F2	Groups A2-F2	12
English III	Groups A3-F3	Groups A3-F3	Groups A3-F3	Groups A3-F3	12
English IV	Groups A4-F4	Groups A4-F4	Groups A4-F4	Groups A4-F4	12

Grand Total = 48 Teachers Delivering Treatments

As a new element of this implementation, teachers would need to be identified and chosen. It is important for true analysis of the effect of variables in the curriculum treatment that teachers are properly identified and chosen by administration to deliver curriculum. To this end, teachers would need to be honestly assessed. The best person in the organization to assess teachers would be the direct supervisor, called the Instructional Leader (IL). ILs have an established relationship with their instructors and can have honest conversations to determine a teacher's attitude toward the programs. Additionally, ILs have access to previous teacher evaluation materials to further codify teachers in groups. The best method for this process would begin with a bi-monthly schoolhouse meeting presentation. At FLVS, teachers are organized into groups called schoolhouses. While the organization of schoolhouses has changed over the years, currently schoolhouses are organized by subject and comprise roughly 50 to 100 teachers to one administrator (IL). These meetings are currently mandatory for all staff. To begin the new approaches, ILs would host a member of the Curriculum Department who would present the four curriculum treatments impartially and take questions. After the schoolhouse meeting, the next step would be direct IL teacher phone contact. ILs are already talking to all their teachers once a month as a part of an organization-wide mandatory monitoring system. These conversations are friendly and informal. It would be the perfect time for the IL to gather the teacher's reaction (positive or negative) toward each of the four treatments. Teachers should not be given a choice as to whether they participate in the treatments because of the number of teachers needed and the different attitudes as well as evaluation levels that need to be filled would be difficult to fulfill if teacher preference were considered. This placement would be in line with previous organizational directives. However, in the new approach, it would be good to stress the ideas that teachers would have a reduced student load. It would also incentivize participation to lift teacher

quotas for the year they are participating in the treatment program. As an element of the new approach, ILs would be in charge of putting together spreadsheet data reports listing all teachers, subject that teacher has the most FLVS experience teaching, positive or negative attitudes toward each of the four treatments, and evaluative level. Reports would take this form:

Table 14: Teacher Tracking Data Chart

Employee	Primary	Attitude	Attitude	Attitude	Attitude	Last
Number	Course	Toward	Toward	Toward	Toward	Teacher
	Experience	Honors	Regular	Current	Research-	Evaluation
		Treatment	Treatment	Credit	Based	Level
				Recovery	Treatment	
				Treatment		
11892	English II	-	+	-	-	HE
10229	US History	+	+	+	+	NI
12939	AP Lit	-	-	-	+	E

Codifying teacher by number would work to add a level of security to the data. Positive and negative symbols would distill teacher attitudes into data that is easy to read and manipulate. At a glance, the Curriculum Department team running implementation could pick teachers to meet the implementation needs without bias based on name or anecdotal response data. Reports would be collected by the Curriculum Department who would assign teachers to the implementation based on data and then deliver assignments to ILs who would contact teachers, explain the assignment, reduce student load, and lift the teacher quota requirements for the year.

In the month ILs are compiling this new data, the Curriculum Department would need to work on developing the following new training materials:

- A one-hour Blackboard Collaborate (the standard FLVS video web-conference interface) power point and script (predetermined direct teaching points and dialogue) covering minor changes in content delivery for existing treatments, review of rubrics, some example/non example student work.
- Two one-hour Blackboard Collaborate power points and scripts.
 - One discussing the CRIT program and the research behind development.
 - The second focusing on procedures, new rubrics, DBA (discussion based assessment) examples, student examples, and non-examples of work.
- A large bank of student sample work at various levels to submit for teacher shell training exercises along with rubric grades and explanation for teacher feedback and collaboration.

The creation of this training should be written by SMEs, overseen and delivered by a subject area Curriculum Specialist. Deadlines should be organized by PMs. Under the current system, there is not a codified way that the Curriculum Department rolls out new material to instructors. Often teachers are told about some of the elements of a new course, have a few Blackboard Collaborate or face-to-face meetings, and then the CS or Lead Teachers are available to help with teacher concerns. FLVS has not in our knowledge ever implemented banks of student sample work to

roll out a new course; however, it is a common practice in other similar settings like online scoring for Pearson. In these settings, teachers must align their rubric interpretation with anchor papers to show understanding of the new implementation and offer time for feedback and correction.

The Starting Line

Once teachers are identified for and notified of implementation participation, training would need to begin. Teachers who have already been teaching the honors, regular, or current credit recovery curriculum treatments would need minimal training. This stage of training would center on reviewing student resubmission or re-testing policies, DBA policies, course rubrics, and record keeping. Teachers would also be introduced to the separation of students into specific shells for specific treatments. This training would be delivered in a one hour Blackboard Collaborate session that will be recorded for those who have scheduling conflicts. Teachers would need to sign up for the meeting and be tracked for in-service points and completion.

CRIT (Credit Recovery Instructional Treatment) training would be more extensive. This would begin with two one-hour long Blackboard Collaborate sessions delivered by the Curriculum Department focusing on the beliefs behind curriculum creation and procedures. These sessions will also be recorded for those who have scheduling conflicts and teachers would sign up for the meeting and be tracked with the in-service point system for completion. Following completion of this section, teachers will be given a shell (a teacher specific copy of the class) of the new CRIT class. The Curriculum Specialist for the subject will act as a practice student for these teachers, submitting assignments at all levels for teachers to assess. Teachers would complete a practice DBA with the Curriculum Specialist (or designee). Teacher

performance in grading these practice elements would be assessed and the teacher will be given constructive feedback. Once the calibration scoring is assessed as adequate (quantified as the teacher scoring agreeing with the Curriculum Specialist scoring 75% of the time) by the Curriculum Specialist (or designee), the teacher will be loaded with students. This will be a new approach for FLVS and mirror the aforementioned Pearson model of anchor papers and feedback. Before Curriculum Department personnel train teachers, they should be trained in this method. Because CRIT training will be the most involved, it will steer the timing of student enrollments into all four treatments.

While teachers are being trained, the Enrollment Department will need to analyze incoming student enrollments to fill the curriculum treatment shells. This represents a new approach and is not currently done at FLVS. This data would need to be quickly analyzed so students can be evenly and randomly placed into treatments within two weeks of enrollment thus meeting organizational placement procedures and not angering students, parents, or counselors awaiting placement. Student, parent, and counselor disclosure of involvement in the curriculum treatments would be based on the treatment placement. Honors or regular curriculum treatments do not differ significantly from current approaches. Students request these designations. Because of student request and the lack of significant differentiation from the current course approach, it is unlikely there would need to be disclosure. It would be to the discretion of the organization to offer disclosure regarding credit recovery treatments. Disclosure might skew the data gathered in the pilot because parents and students might opt out of an experimental treatment. If the organization determined disclosure to be necessary, both credit recovery treatments would need to have stakeholder disclosure. Students would be told that because they are seeking credit recovery, they will be placed in a class designated for that purpose. Parents and counselors

would also receive a copy of this disclosure. Additional disclosure would be given for CRIT placement because it is an experimental treatment outside of the normal approach students would be exposed to if they enrolled normally for credit recovery. The Enrollment Department would need to contact all students earmarked for CRIT placement, explain the experimental nature of the treatment, explain the changes as well as advantages of the CRIT system, give stakeholders the opportunity to opt out, and collect signatures on disclosure forms if the organization deemed disclosure necessary. This process could be automated through the student course request interface. Enrollment personnel would need to be trained in the reasoning behind and procedural completion of these tasks. Additionally, because of the higher level of involvement in the enrollment process, extra Enrollment personnel might need to be brought on staff. Currently teachers have up to 220 students with no specific cap on the number of students in each shell; for this implementation, teachers should have no more than 25 students in each treatment for a total cap of 100 students or 125 half credit enrollments between the four distinct shells. This would ensure teachers had the time to devote to fidelity treatment of delivery, develop relationships with stakeholders, monitor student progress, and analyze program success. Additionally, some research shows that smaller class sizes are more successful for at-risk students because of the increased focus and ability to build relationships (Finn, 1998). While Finn (1998) argues that the increase in funding and change in organizational structure might not be worth the results gained by reduced class size, these factors have less impact when curriculum is delivered online.

Setting up the four curriculum treatments will be an intricate process of analysis and timing. A work flow plan describing the steps would help organize and streamline the process and might take the following form:

1. **February** – Data Analysis Team uses existing student data to analyze which core graduation requirement classes had the highest rate of student failure in the previous year.
2. **March** - Administrative team including Finance, Curriculum, and Instruction will use data to choose 3-5 high needs courses to develop for credit recovery.
3. **April through October** - Curriculum Development Team creates CRIT courses for 3-5 high needs subjects.
4. **November** - Curriculum Development Team creates four treatment shells (3 to be duplicated from existing shells but given a unique identifying number) ready for delivery to instructors.
5. **November** - Curriculum Department delivers informational sessions at monthly schoolhouse meetings.
6. **December** - ILs assess teachers and deliver data to Curriculum Department.
7. **January** - Curriculum Department assigns teachers to the program, creates training schedule and materials, then delivers lists to ILs. ILs inform teachers of placement and training schedule.
8. **February** - Teachers receive their new shells without students.
9. **February through April** - Curriculum Department runs teacher training sessions.
10. **April** – Enrollment Department identifies students for each treatment, makes necessary contacts, and acquires permission when needed.

11. **May** - All treatments go live. Enrollment and Curriculum Departments remain on standby for troubleshooting.

This workflow is based on the average development time within the organization for a course the scope and size of CRIT as well as traditional time allocations for activities like training. It is imperative that all treatments go live by early May as this is the time most students are seeking credit recovery.

Running the Course

At this stage, Enrollment and Curriculum Departments drop back to a support role and instructors take over in treatment delivery and analysis. Instructors will be responsible for keeping data records of student success. Because this is a new role, instructors will need support from Lead Teachers (teachers who take on a support role in assisting “classroom” teachers with various tasks such as contacting students or imputing data) in this data keeping. Elements that would be important for instructors to track are the specific curriculum treatment for a specific student (to analyze specific treatments), time spent in the course (as time can show elements like motivation, student difficulty, or confusing design elements), end result of enrollment (to gauge student success), an explanation of the terminal results (to analyze causes for student success or failure), and interventions the instructor attempted to bolster student success (to analyze both teacher effectiveness and possible difficult design elements). Data might be easily collected in chart format of which this is an example:

Table 15: Sample Teacher Data Collection Chart

Student Number	Enrollment	Segment	Weeks in Course	Terminal Results	Explanation	Interventions
11424	English III standard credit recovery	2	2	WNG	Student did not complete any assignments in grace period.	Student Contact: 5/22, 6/1, 6/6 Parent Contact: 5/18, 6/1, 6/6
11606	English III Honors	1	12	Complete Grade: 93.23	N/A	N/A
10992	English III CRIT	1	21	WF	Student could not maintain pace, would disappear for weeks.	Student Contact: 6/12, 7/1, 7/4 Parent Contact: 6/1, 6/8, 6/22

Teachers will submit these reports quarterly to the Curriculum Department for analysis. At this point, the implementation process will begin to be evaluated. To our knowledge, this is not systematically done in the current FLVS system.

Posting the Results; Correcting for the Next Run

The Curriculum Specialist (CS) will pair with members of the Data Analysis Department to begin analyzing student progress across all four course treatments. Instructor data will be paired with student/guardian exit surveys. These exit surveys are already a part of FLVS procedure and cover topics of student ease of use, content difficulty, and teacher-student relationships. Little modification would be needed to make the data useful for this implementation. Data collected for each of the four treatments would be compared, and then the compiled data would be compared across all credit recovery courses offered. These comparisons would focus on determining if there were significant differences in the success of each of the four treatments (assessed through p values of $>.05$) and the success between content areas. The purpose of this data analysis would be to determine which approach to credit recovery elicits the most student success and if the approach success is determined by subject area or affected by teacher variables. Compiling this data quarterly throughout the first year of implementation will help to set some baseline levels and direct any content, web development, or professional development tweaks.

At the end of the initial year of launch, the CS, PM, and Psychometrician will meet to determine if there are any content, development, or assessment issues that need to be addressed to make the course experience better for the end user. While this is common practice in the organization, it is often not backed up with the layers of systematic data we are recommending. This continuing support for the course development should be encompassed in the initial scope and finance plan. Improvements will need to be completed no later than April 30th to have the

course ready for the influx of students seeking credit recovery at the end of the school year and into the early summer months.

The program implementation and evaluation scope will encompass a three year total run. After the quarterly data management and analysis of the initial year, the CS, PM, and instructor data collection and analysis will drop back to an annual data pull, analysis, and improvement cycle. At the end of the third year, the data will be presented to administration to determine the success of the implementation and make executive decisions about how the organization will handle credit recovery moving forward.

Running the Next Race Together

While much of this chapter deals in specifically FLVS processes, the plan can be easily adapted and replicated in any setting. Implementations can be as large as the pilot described in detail above or as small as two teachers delivering two different curriculum approaches throughout the day. Key components are as follows:

1. A needs assessment for credit recovery in the organization.
2. An analysis of current practice.
3. Creation (or purchase) of a systematically developed research-based approach specific to credit recovery.
4. An analysis of stakeholders and their role in implementation.
5. An organized implementation that attempts to isolate student and teacher variables.

6. Running the experimental treatment alongside of and preferably using the same personnel as the current treatments.
7. Systematic data collection across all treatments, current and experimental.
8. Not abandoning the implementation after a short amount of time. Longer implementation produces better data that is not impacted by small fluctuations in student population or teaching style. We recommend an implementation cycle of no less than three years.
9. Making decisions based on data rather than emotion, finance, or politics at the end of the implementation.

We do not advocate for a strict Taylorian style of rigorous science-only based modes of organization; however, instruction, curriculum planning, and implementation could benefit from the clinical aspects of Taylor's style. Often programs are abandoned before they can produce any significant results. This happens for a variety of reasons including, but not limited to, change in leadership, funding, or emotional states. Often, teachers or administrators working with at-risk populations become disillusioned with the lack of results in the first year. Lack of results can stem from a variety of sources including a lack of data bulk, problems with fidelity of implementation, or student resistance to change. These are variables that tend to work themselves out in a three year cycle. Patience might not be rewarded. Results might be small or inconclusive at the end of three years (although we doubt that a faithful implementation will not produce results), but it is the duration of time that will tell the facts. Abandonment gives no results and wastes resources. Hope and the surety that comes with a focused approach for those who need it might not create perfect results, but it is imperative to create a better model for students.

Limitations and Recommendations of Implementation

Several factors work to limit the ability to predict the success of this implementation. Research determining the factors for success in online coursework is limited in scope partially because of the newness of the medium and in part because of the stigma attached to credit recovery. Often, online providers have different codes for student withdrawal. For example, at FLVS students can be removed from the course without penalty during the first two weeks, called a grace period (the equivalent of add/drop in college classes). Often, students who are removed are not working. These students would have received an “F” in a traditional setting but are designated as WP (Withdraw Passing) in the FLVS system. In this way data for failure is obscured or under reported. There is not really a baseline to start with in beginning an analysis of the success of approaches heretofore. While running current approaches concurrently with CRIT as parts of the curriculum treatment will help set some baselines for percentages of failure, this data is weak in that it is running concurrently and has only the depth of one year from which to draw.

The researchers were also limited in their inability to pilot a live treatment for students. Running a live treatment following the outline of the implementation plan would allow for a full analysis of the treatment and implementation. Some limitations of running a full scale implementation would be the financial limitations of development, human resource limitations, and stakeholder involvement limitations.

To ameliorate some of the limitations inherent in running such a large scale program, we recommend limited CRIT implementation run as a pilot. If the CRIT pilot exhibits some evidence of success, the case might be made for extending the pilot to the above outlined

implementation. At the very least, existing approaches to credit recovery need to be analyzed so the organization can determine their effectiveness in creating student success.

CHAPTER 6: CONCLUSION

Introduction

As we conclude our intensive look at credit recovery programs both in the nation and our specific school site, we use this chapter to identify and acknowledge limitations to our own work, briefly touched on in previous chapters and reiterated here. We provide recommendations to the American educational community in moving forward with their own credit recovery programs after a careful examination of our own newly devised curriculum treatment, discuss lessons learned through this three-year study both as students and professionals, and reflect on how our own work fits in with the existing literature on this topic. We will conclude our treatise on credit recovery by revisiting CRIT's replicability and ability to be generally adapted to any other course in any milieu.

Lessons Learned

As students of the inaugural Carnegie Institute inspired Ed. D. program (CPED) at the University of Central Florida, we were charged with identifying a problem of practice or gap in our current organization and developing one possible solution or way to close this gap through a close examination of existing research and current practices. In analyzing our school through multiple frames of organizational theory (Bolman & Deal, 2008), we have come to realize that problems are never as simple as initially expected; an organization must view its policies through these complementary yet distinct lenses in order to truly develop effective recommendations and solutions. We also uncovered a surprising lack of scholarly research on our chosen topic of credit recovery considering the number of students involved and serious nature of the consequences for not passing core classes in high schools across the nation. While qualitative data about course

elements was specific regarding what students and instructors felt did not work (Boston & Ice, 2011; Cooper, Charlton, Valentine, Muhlenbruck, Borman, 2000; Dynarski & Wood, 1997; Huckabee, 2010; Jacob & Lefgren, 2007; Jones, 2011; Kemple & Snipes, 2000; McCabe & St. Andrie, 2012; Parks, 2011; Queen & Lewis, 2011; Robbins, 2011; Robyler, 2008; Smink & Deich, 2010; Snipes, Holton, Doolittle & Sztejnberg, 2006; Zinth, 2011), quantitative data in the form of pass rates was scarce (Gonzalez, D., 2012; Zinith, 2011) and did not compare competing curriculum treatments. Indeed, we often found ourselves seeking alternative methods of research such as consulting social media to find support for assertions notated in this work (“Why teaching summer,” 2011; “Top reasons why”). Drop-out prevention programs, suggested by our faculty and field mentors as areas of possible research, were additional sources of supplementary research to provide gravitas to our claims. By and large, research directed at drop-out prevention paralleled that of online credit recovery. Students needed relevant, highly motivating curriculum. They needed to be engaged by a teacher in a positive relationship. Students needed multiple opportunities to show mastery in a variety of formats (Bridgeland, Jilulio, Jr. & Morison, 2006; Rumberger & Lim, 2008; Sinclair, Christenson, Evelo & Hurley, 1998; Zablocki & Krezmein, 2013). Many of these elements already exist in FLVS curriculum. We seek to extend and improve current FLVS elements. Given our organization’s specific, pioneering status as an innovator of online education, we were not unfamiliar with groundbreaking work; however, this same newness as it pertains to online education leaves another gap in our own research and thus leads to another learning experience as we find ourselves creating a revolutionary program focused on a specific set of students all too often shunned by educational researchers.

As professionals in the field of education, we were taken aback at the dearth of information about this highly populated student type (the credit recovery persona) as we have a

combined 24 years of experience teaching, often in situations rife with these students. As educational reforms continue to push for higher standards and rigor in teaching and expectations for students, it seems an even larger gap will emerge between those students who are succeeding and those who are not. Surely, the need for quality credit recovery options will only continue to grow. With the consistent siren's call to address the needs of our lower-performing students, again, we wonder how this subgroup of students figured at around one third of FLVS enrollments (Dessoiff, 2009), those who are not just under-performing, but who are actually failing their courses, can be overlooked. In completing this dissertation in practice, we feel even more competent in addressing the needs of these students as we have encountered multiple studies researching best practices to assist in drop-out prevention. Since we can assume that students who have already failed one course are at risk of dropping out, the attention to the current programs dealing with drop-out prevention and examination of their successful practices is relevant to credit recovery research.

Limitations and Recommendations

In Chapters One and Two, we explored the history of credit recovery and the educational as well as cultural climate that currently fuels the need for student credit recovery options. Certainly the largest limitation in this area is the lack of research of any program but specifically of online options. This lack of research limits practitioners, curriculum developers, and schools in their ability to create results-based programs. We recommend that universities and school districts step in to fill this wide gap in knowledge to benefit this high center of student need. Qualitative studies spanning several different curriculum treatments could help build a larger

knowledge base about causal factors for student failure. Quantitative studies about different methods of delivery, online, traditional, and mixed methods, would add data to the conversation.

Chapter Three explained our design and its backing in what research exists for credit recovery. We gave specific examples rooted in English content and explained how the approach was cross-curricular in nature. Here as well, research limitations come into play. While we believe our design is based on sound research-based principles like the ADDIE model (“Instructional design models,” 2012), the lack of research in the field severely limited our ability to judge what we have created. Because of this blind spot, we recommend a series of small pilots before schools or districts fully devote resources to CRIT or any credit recovery program. Additionally, we recommend schools or districts take the time to investigate if the resources they are currently investing in credit recovery are paying off and to what extent those current programs, or lack thereof, are meeting the school’s and /or district’s quantitative and qualitative goals.

Evaluation of existing programs as well as the proposed CRIT program was covered in Chapter Four. This chapter presented evaluation questions important for any program and can work to help schools and districts evaluate the results of existing programs as well as create goals for program modification, creation, or adoption. Echoing throughout our work, Chapter Three included, is the limitation of research and resources to gather quantitative data. Our recommendation of the need for both analyses of what is currently being done in any given setting and the need to implement proposed programs in small pilots reverberates. The financial truth is that, like it or not, schools and districts are already spending a great deal of money on

credit recovery. Student resources, teacher salaries, classroom space, and technology all are currently being devoted; therefore, the results should be analyzed.

Implementation was the focus of Chapter Five where we offered specific steps that any school or district can use to implement CRIT or another research-based credit recovery program. The same limitations of access to resources and research affect this chapter. Again, we recommend implementing small scale exploratory pilots. Ideally, small pilots could be implemented in a variety of settings to pinpoint findings for the widest range of students. While there are no industry-wide standards for best implementation practices for curriculum treatments, there are parallels for implementation practices in the public health field. Best practices include implementing evidence-based approaches to meet goals and sustain resources using industry recognized tools and time lines (Jacobs, Jones, Gabella, Spring & Brownson, 2013). We have used these practices in developing the implementation plan for CRIT.

Situating CRIT in the Existing Literature

CRIT grew out of both our experience in working with at-risk populations and our extensive search for best practice research. Our experience in traditional as well as virtual instruction gave us plenty of examples of programs that were not working or were not working to their full potential, but often we did not know why. Although there is an extensive gap in the literature reviewing credit recovery, especially when delivered online, we believe what research exists supports a great many of the practices we have always believed would garner success. We believe that in creating CRIT, we support the existing literature by including a high level of student contact (Dynarski & Wood, 1997; Sinclair, Christenson, Evelo & Hurley, 1998; Thurlow et al., 1995), multiple attempts at assignments (Franco & Patel, 2011; Zablocki & Krezmein,

2013; Swanson, 2008; Reynolds & Birch, 1982; Queen & Lewis, 2011), and a wide variety of acceptable assignment formats (Jones, 2011; Bridgeland, Jililio, Jr. & Morison, 2006) as corner stones of our CRIT program. As we have reiterated throughout this dissertation in practice, credit recovery in theory and application suffers from a lack of quality research to find appropriate support for many of our assertions. We find ourselves, instead, focusing on drop-out prevention techniques and research believing these two topics to be similar in scope and target audience. For example, both dropout prevention and credit recovery best practices research focus on motivation and mitigating reasons for student failure (Bridgeland, Jililio, Jr. & Morison, 2006; Rumberger & Lim, 2008). We see our work building a bridge between dropout prevention and credit recovery in educational circles, the latter being the solution to the former problem. Our work allows others to see this same gap that we have uncovered, opening the door to further research that will confirm and/or refute many of our suppositions allowing for true discourse and conversation on this expanding field to elicit results. Our hope is that much of CRIT will be corroborated through pilot programs across the nation, showing that research-based programs are the proper way to go about designing curriculum for all student types, especially our most desperate, those who have already failed in the current system. It is our belief that the quantitative results of these pilots would show drastic improvement over current methods and success rates (Gonzalez, D., 2012, Zinith, 2011). We welcome further research to continue the conversation we have begun.

Replicability and Generalizability of CRIT

Although arriving at the stage where an organization would be willing to implement CRIT might entail overcoming the stigma of credit recovery and a dedicated allocation of

resources, once that decision had been made and resources allocated, replication of CRIT would be a fairly easy process. Both evaluation and implementation are described in detail in Chapters Four and Five. These “how to” directions are based on industry-wide best practices (Yarbrough, Shulha, Hopson & Caruthers, 2011; Jacobs, Jones, Gabella, Spring & Brownson, 2013) and can be followed in any organization, virtual or traditional. Currently the problems we see in credit recovery replication are that too many schools and districts are replicating denial of need, lack of programs, and lack of evaluation of measures already in existence. The need to address failing students exists in every school. Every school is currently dedicating resources, capital and human, to this issue. Improvement might not be a matter of dedicating increased resources to the issue but rather of more efficiently focusing existing resources on approaches that work. To determine this, evaluations of existing approaches must be done. If existing approaches are not working, as most hard evidence for online credit recovery suggests (Gonzalez, D., 2012; Zinith, 2011), CRIT is generalizable to a wide variety of settings, virtual and traditional. CRIT is an approach rather than content. It is to be overlaid on top of course content. In this way, it can modify any existing, already purchased curriculum or content in any field or subject. It is generalizable because it can be applied to a wide variety of content. It is also generalizable because it addresses common reasons reported nationwide for why students fail and need credit recovery (Bridgeland, Jilulio, Jr. & Morison, 2006; Rumberger & Lim, 2008).

A Financial Accounting

According to FLVS sources, around 250 teachers are employed in a subject area (Emery, 2013). There are four major subject areas for graduation: Math, English, Science and Social Studies. Therefore there are roughly 1000 teachers involved in core requirement classes. Each

teacher has an annual credit goal of around 250 half credit student completions. Most teachers make this goal; many exceed it. For calculation purposes, we will consider each teacher at a minimum of 250 half credit enrollments annually. We will discuss data based on .5 credit enrollments because funding, quotas, and teacher data is analyzed based on .5 credit enrollments rather than actual students. It is more precise to the organization to consider teacher to student enrollment ratios rather than teacher to student ratios. If 1000 teachers in the four major graduation subject areas each have 250 students, this means there are roughly 250,000 enrollments in core requirement classes. If we consider that an estimated third of these enrollments are credit recovery (Dessoiff, 2009), that translates into 83,332 students enrolled for .5 credit recovery per year of which only 53% (44,166 student enrollments) are successful in obtaining credit recovery the first time (Gonzalez, D., 2012). However, these numbers are complicated by the manner in which credit recovery is calculated. Certainly some percentage of those students enrolling for credit recovery are enrolling after failing that same FLVS class in their first attempt for credit thus double dipping into resources allotted for only one student attempt. FLVS is paying for student resources and teachers to serve these students multiple times without collecting any FTE.

For the 2013-2014 school year, the base student allocation was figured at \$3752.30 per annum ("2013-2014 funding for," 2013). FLVS has a cost differential of 1.0 ("2013-2014 funding for," 2013). Assuming none of the students enrolled in credit recovery have weighting factors, which is highly unlikely considering the research discussing why students fail (Bridgeland, DiIulio & Morison, 2006; Marion & Sheinkler, 1999; Rumberger & Lim, 2008; Sinclair, Christenson, Evelo & Hurley, 1998; Swanson, 2008), the successful FTE for each .5 credit obtained is \$312.69 as FLVS receives 1/12th of an FTE for each .5 credit successfully

completed by a student. Considering data derived from our 2012 data pull (Gonzalez, D., 2012), 47% (39,116 student enrollments) of credit recovery students are unsuccessful in their first attempt. Annually, FLVS is providing \$26,053,083 worth of services to students attempting .5 credit recovery but only obtaining \$13,810,266 in FTE funds for those who succeed.

The estimated cost for developing a full course at FLVS is around \$400,000 (Name Withheld, 2013) for each specific course. Development costs include staff involved in curriculum creation. Since CRIT is about half of the scale of a full FLVS course, we can reasonably figure the cost of development at \$300,000 for each specific course with the cost for training estimated at around \$20,000 and ongoing evaluation at a cost of roughly \$20,000 for the duration of the three year pilot. Four specific courses would need to be developed for the pilot representing one course for each of the four major disciplines (math, English, science, and social studies) totaling \$1,200,000. A reasonable estimate for the one-time cost of creating and implementing CRIT as a three year pilot would be in the neighborhood of \$1,240,000.

In order to implement CRIT on a pilot level, this initial one-time development cost would be one element of the financial picture. Another element would be the ongoing staffing to run a three year pilot program. Each of the four main disciplines (math, English, science, and social studies) has roughly four core graduation classes. To divvy up the implementation of CRIT across these four main discipline areas, the initial data analysis to choose classes with high levels of credit recovery need could focus on choosing one course for each discipline. This would provide the initial four courses for the small scale pilot. Choosing classes from different disciplines would also help the evaluators analyze if there are differences in success rates for different subjects. Let us suppose for the sake of easy calculation, that the 83,332 credit recovery

enrollments discussed before are split evenly between those four subjects equaling 20,833 student enrollments in each subject. If those enrollments are split evenly (which they are likely not but for ease of calculation, we will assume this mathematical convenience) between each of the four core requirement classes, in each subject there would be 5208 credit recovery student enrollments in each course per year. If we ran the pilot on four courses, this would be a total of 20,833 student enrollments in four subjects. Currently FLVS employs roughly 83 teachers (at the aforementioned average of 250 student enrollments per teacher) to serve these students. Within our implementation plan we discussed the need for credit recovery teachers to have a reduced course load to better serve an at-risk population; however, hiring new teachers to fill the positions would be problematic. Teacher salaries might push implementation costs up beyond the bounds of a realistic budget. For example, to change the credit recovery teachers in the pilot from an average of 250 to 125 student enrollments while keeping regular curriculum teachers at a 1:250 ratio, FLVS would need to employ 83 more teachers at \$55,000 a year making the cost of the pilot untenable. A more fiscally viable approach might be to redistribute students in order to create the desired 1:125 student enrollment ratio.

Currently there are around 1000 teachers serving 250,000 core graduation requirement student enrollments at a roughly 1:250 ratio. Partitioning 167 teachers out to serve the 20,833 pilot enrollments at a 1:125 ratio would leave 229,167 regular non-pilot students to be served by the remaining 833 teachers raising those teacher to student enrollment ratios from an average of 1:250 to an average of 1:275, an increase of 25 half credit student enrollments per teacher. Traditionally credit recovery students, because of the likelihood these students have cognitive or access issues (Rumberger & Lim, 2008), use a larger proportion of teacher time than regular education students, so the additional 25 student enrollments (this number could range between 13

actual students taking the full credit to an actual number of 25 students each taking only .5 credit) coupled with the removal of all credit recovery students from the regular courses would not make a large impact on the average teacher's workload. In this way, the organization could staff the pilot program without any teacher staffing increases. Two additional enrollments personnel would need to be hired to facilitate correct student placement. At a cost of \$43,000 base annual salary plus \$2000 annual communication stipend with an estimated \$10,000 in annual benefits cost, each employee's annual salary would equal \$55,000, totaling \$330,000 over the three year pilot.

Initial development cost (\$1,240,000) plus additional three year enrollment personnel salary cost (\$330,000) would bring the total estimated pilot cost to \$1,570,000. At this time, the FTE funding for those 20,833 student enrollments stands at a 53% success rate totaling 11,041 successful student enrollments at \$312.69 equaling \$3,452,410. A marginal 12% increase in success rate for the pilot would bring the rate up to 65% (13,541 enrollments) having 2500 more students obtain .5 credit and pay out additional FTE totaling an extra \$781,865 annually. This would total \$2,345,595 over the three years the pilot would run. This additional three year FTE income would be enough to cover the one-time development cost plus the three year salary cost (\$1,570,000) with a remainder of \$775,595, which could be set aside to help fund a full implementation if the pilot produces successful results. Not only does the small scale pilot have a high chance of paying for itself, but also it has the potential to make a difference in thousands of students' lives.

However, due to the large number of teachers needed to fully implement CRIT, the pilot would need to consistently raise the overall credit success rate from 53% to between 80% and

81% to make full school implementation financially viable. One might argue this is too great a leap, but we are already serving 100% of these students, 47% of them without any FTE recompense. The pilot would provide a safe arena to discover if CRIT can make such a drastic impact on student success. Focusing on an area of need tends to stimulate improvement. Focus in addition to implementing a research based intervention like CRIT, in our estimation, has a high likelihood to greatly improve success rates.

If the pilot maintains at least a stable 80% student success rate throughout the three year implementation, it would be viable to extend the program school wide. If this pilot was then implemented school wide in each of the four core graduation requirements in all four major subject areas totaling sixteen devoted credit recovery approaches, the costs would grow but the viability of the program and return on investment would remain. There would be an additional twelve courses to develop at the cost of around \$300,000 per course equaling \$3,600,000. This would be partially paid for with surplus from pilot success (estimated at \$1,817,790 if the pilot were to reach an 81% success rate). The remaining \$1,782,210 could be paid in increments over ten years. Ongoing costs would be \$10,000 per annum for training and \$10,000 per annum for ongoing evaluation plus salaried positions. The ongoing annual salary cost of a school wide implementation would be greater than the pilot.

Because of the increase in teacher salary involved, a full scale school implementation would likely have to change CRIT teacher/enrollments ratios to 1:160. This would require 521 credit recovery teachers to serve 83,332 students and 606 teachers to serve the remaining 166,668 noncredit recovery students at a 1:275 ratio. At these numbers, FLVS would need to employ an additional 127 teachers. An additional 127 teachers plus two enrollments personnel

equals 129 additional salary positions. Bringing in new teachers for noncredit approaches would be recommended as credit recovery teachers would need additional experience and training. Also, the new teachers would start at base salary saving money. Base salary of \$43,000 per annum plus a \$2000 per annum communications stipend with an average \$10,000 per annum benefits cost equals a salary cost of \$55,000 per position bringing the new positions to a cost of \$7,095,000 per annum with continuing costs of \$10,000 for ongoing training and \$10,000 for ongoing program evaluation. Total reoccurring annual costs would be \$7,115,000.

At a success rate of 81% (67,449 enrollments), as opposed to the current 53% (30,916 enrollments) credit recovery success rate, the program would continue to pay for itself translating into 23,333 more successful student enrollments at \$312.69 FTE each equaling \$7,295,996 per year paying for both the ongoing cost of training and evaluation (\$20,000) and teacher salary (\$7,095,000). The FTE surplus of roughly \$181,000 every year would go to incremental payment of the one-time development costs. At year 11, the program would begin to produce this as a revenue stream, which could be used to recalculate teacher/enrollment ratios or fund other initiatives.

As a caveat, we would like to point out that we are not financial experts nor are we privy to the true nature (actual facts or figures) of most of these calculations so that our imperfect financial picture is just a vague outline of what the financial side of program implementation would truly look like. We believe the figures we have chosen are very conservative with regard to FTE income, numbers of students served by teachers, salary, and development costs. Actual numbers would likely paint a more positive program accounting. This accounting assumes that none of the current FTE generated by credit recovery students would be used to fund the pilot or

full implementation as would be likely in a real implementation scenario. The financial picture would look even better when student weighting and not having to serve students multiple times without funding are considered. This full scale implementation could produce much needed success for at-risk students, possibly create a small revenue stream above program costs, and elicit positive press in the public sphere for FLVS' success with this student population. Certainly full implementation has the potential to impact tens of thousands of students' lives in a positive way.

A Moral and Ethical Imperative

No matter how “good” or “bad” the school or district, no matter the race, class, culture, primary language, or socioeconomic status, students in every school fail. While the need for credit recovery is becoming more important in education, the exact scope of need will depend on the individual school. Each school or district will need to evaluate the level of import to give but credit recovery must be addressed.

Because of the high stakes for the individual students (Belfield & Levin 2007; Bruckerhoff, 1988; Kokko, Tremblay, Lacourse, Nagin & Vitaro, 2006; Matthews, Gallo, Taylor, 2010; Jajoura, 2006), it is a moral imperative that educators address this student need. Public schools are doubly beholden to the moral imperative in that public schools are funded with public money and entrusted with providing value in the form of education for that public tax money. Public schools have an ethical imperative to evaluate programs to determine if public funds are being used to maximum effect. Unexamined programs, approaches, or lack thereof resulting in critical student failure impacting individual earning power and the productivity of the

community cannot endure in an accountability culture. This is especially true when the community is paying the price both for and of an unsuccessful education.

APPENDIX A:
CRIT FLVS CURRICULUM DEVELOPMENT SCRIPT

Subject: English Language Arts

Grade: 12th

Course: Credit Recovery English 4,
Segment 1

Need: Currently FLVS does not offer a specific course or approach for English 4 credit recovery.

Context: This class is built for students who have been unsuccessful in other curricular modes of English 4 including virtual courses and traditional classroom settings. Many of these students face time constraints

caused by impending graduation dates, serious health concerns, or stressful family/personal situations. The expectation is that they will need to be directly taught/retaught all skills involved. However, there are opportunities for students to exhibit mastery of skills to create a reduced work load. Students will use personal preferences to direct learning goals including a research project and a novel selection. Students will understand that communication is a means to personal gain and English skills are the building blocks of communication.

Possible Misconception:

Because this is an English class, the content of the course is solely comprised of literature. Students must learn to understand and appreciate specific pieces of literature.

Refutation: The first unit in the course is about research. The topic of the research is to be student selected and can be from any content domain as long as it meets the qualifications detailed throughout the unit. The second unit is about literature but students self-select (with guidance) literature. The goal is for students to learn what choices they can make to be successful in their dealings with literature by choosing pieces that mirror their personal interests.

Rationale: If we are using a standards based mastery approach to education in the regular English 4 course, we should use a standards based mastery approach to education in offering credit recovery.

Instructional Philosophy: The main goal of the course is for students to show mastery and receive credit. To facilitate this, students get credit for work they've already done (in the form of exemptions for previous student product/skill), students are allowed multiple submissions with detailed feedback in order to elicit mastery

evident products (exam banks are 4 levels deep so students can take exams up to 4 times), and students have constant access to help from interactive elements in the course as well as from their relationship with the teacher. Students should be allowed to work at their own pace as long as the progression of learning is sustained (if the instructor feels this is not happening, students will be placed on "hold" and the family will be contacted to set up a plan for success). Students should be able to show their mastery in a wide array of formats. Students should be graded in a consistent and rigorous manner (aided by the inclusion of rubrics as a part of the teacher grading system). Students should be held accountable for academic integrity breaches but not to the detriment of credit except in extreme cases.

Possible Misconception:

Teachers need to be generalists or do a great deal of research in order to keep up with the wide variety of student products.

Refutation: Teachers are guiding the student in proper procedures regardless of content specificity. As their understanding of audience, students are required to present information in an accessible way to the instructor. If the instructor feels that is not being done, it should reflect on feedback to the student with guidance for the student to better address their audience who might not be as well versed on the subject.

Organization: This segment is organized into 2 units. The first unit is titled Speaking to the World and is centered on a student selected authentic research question. The second unit is titled The World Speaking to You and is centered on understanding literature on multiple levels.

Possible Misconception:

Students can do anything to show mastery.

Refutation: Student selected products must be serious in nature representing a problem that is personal to the student and graded with specific rubrics (outlined in the rubrics for students and directions for teacher-student conversations). Projects are based on CCSS and NGSSS standards. Projects focusing solely on opinions or value judgments do not meet the requirements.

Materials and Resources:

Student: computer, secure internet access, phone, word processing software

Course: Links to credible style/grammar guides, plagiarism tutorials, examples of student work with annotations, video instruction, rubrics, limited time constraints, 12 hours a day / 7 days a week access to one on one instruction

Development needs, time frames, and estimated cost:

1. Completion of lesson development for both units.
 - a. Time frame: 2 months
 - b. Estimated cost: \$0
2. Development of course content onto Educator LMS platform including editing.
 - a. Time frame: 4 months
 - b. Estimated human resource cost: 2 developers part time for 4 months
 - c. Estimated direct financial cost to organization: \$0

3. External review

- a. Time frame: 2 weeks
- b. Estimated cost: \$1000

Implementation plan: Once development is complete, but 2 weeks before students are loaded, the course should be made available to teachers. During this 2 week period, teachers will be required to complete a short professional development activity. Teachers will also have the opportunity to submit help tickets to fix any broken links or overlooked mistakes within the class. Students will be placed into the credit recovery classes based on their past status of failure. Students will be informed at the time of enrollment that they are being placed in credit recovery. Teachers will know that students placed in that credit recovery shell are students that have been unsuccessful in one or more attempts at credit.

Professional Development Philosophy and Approach: The philosophy for professional development is to give teachers exposure to examples and non-examples for the major assignments within the class. In this way, teachers will receive real world experience in battling their own misconceptions as well as the misconceptions of students. Teachers will also have a good working understanding of what constitutes exemplary work within the class in order to better apply rubrics to student work once live students are loaded into the class.

In order to facilitate this professional development, teachers will receive a working shell of the new credit recovery class 2 weeks before students are loaded. During that time, teachers will be required to complete short professional development activities. Two mock students will be added to the class and work from those students (created by the professional development or curriculum writing team) will be given to the teacher to grade. One student will be an example of

exemplary work and the other student will provide non-examples showcasing the most popular misconceptions (these are addressed within the following unit explanations). Upon completing each student assignment feedback, instructors will submit the assignments to the curriculum/professional development personnel in charge of the training (by clicking a button below the feedback). Curriculum/professional development personnel will provide feedback and correction as needed.

At this time, teachers will also be encouraged to read through the course. If they find any broken links or missed mistakes, they will have the opportunity to submit a help ticket to the curriculum team in order to have the mistakes fixed (or further explained if the issue is not a mistake but the teacher believes it to be).

Unit 1

Title: Speaking to the World

Learning Objective: Students will learn to solve complex problems in a valid and reliable manner using research.

Bloom's Revised Taxonomy

Subordinate Goals: Understand the concept of a multi-sided problem (assessment pieces 1-3). Analyze and synthesize factual and conceptual knowledge about a problem (4, 9). Create and evaluate conceptual solutions to a problem (5, 6, 9). Analyze the procedure of implementing a solution and evaluate possible difficulties in implementation (5, 9). Understand and apply conventions of English (7). Understand the conceptual value of peer editing, apply this value in the selection of editors, and evaluate the

Possible Misconception:

Student A chooses the following research question: "Why is school so boring?" Because it is a question and has a social context, Teacher A approves the topic.

Problem: This topic is centered on an opinion and can't be answered with credible research.

Solution: Teachers should focus on the availability of credible research for student topics. Teachers should follow course rubrics (see Appendix A). Teacher A can remediate this specific scenario by calling the student back and discussing possible modifications to the topic.

Possible Misconception:

Student B chooses the following thesis: "The literature of Mark Twain is loaded with universal themes." Teacher B loves Mark Twain and approves the topic.

Problem: This is a statement, not a research project. It can't be argued, doesn't have multiple sides, and no solution can be applied.

Solution: Teachers should follow course rubrics and discuss the outcomes of research with the student when they are selecting topics, specifically prompting the student to talk through what types of research they think they will find and how they might solve this problem. Teacher B can remediate this specific scenario by calling the student back and discussing possible modifications to the topic.

factual and conceptual value of the completed editing (8). Evaluate the metacognitive effect of the problem on yourself (10).

Need: Students will need to have a solid background in research skills for all colleges and most professions.

Context and Rationale: Students in credit recovery might have been unsuccessful in their first attempt at receiving credit for English 4 because of a lack of motivation. In choosing their own research question, they are invested in the assignment. A wide variety of acceptable forms of the research product allows

students to work in a media in which they are comfortable. If the student has already shown mastery in the area of research, they can use their previous work to eliminate some assignments.

Essential understanding:

Communication is a key to success in the students' personal and professional lives.

Possible Misconception:

Student C chooses the following thesis: "How to solve global warming."

When Teacher C goes to grade this assignment, she notices there are 6 resources and there are quotes inside of the paper, so she gives it an "A."

Problem: The instructor does not look at the context of the quotes or the sources. Sources must be valid and work to show multiple perspectives or backup a point. Tertiary sources like dictionaries, encyclopedias, ect. do not meet the qualifications. Quotes must work to show multiple perspectives or back up a point; they must be integrated into the student's argument, not placed because quotes are needed for the assignment.

Solution: Teachers should focus on course rubrics when grading each step of the project to avoid an end product that does not meet requirements. Teacher C can remediate this situation by contacting the student and discussing some other sources that might make the paper more valid.

Central task: Students will choose a real world problem that directly affects them, examine the problem from multiple perspectives via research, and offer solutions based on their understanding of the problem as well as their research. Students will reach out to authority figures connected with the problem in order to implement solutions.

Evidence of mastery:

1. Research

- a. Validity of research (Critical)
- b. Research contains a wide variety of sources (breadth) (Important)
- c. Research shows depth (Desirable)

2. Audience

- a. Understanding of audience and authority figures controlling the problem (Critical)
- b. Presentation of a solution(s) to the problem. (Important)
- c. A clear plan for implementation of the proposed solution(s) (Desirable)
- d. Choosing a method of communication that will be appealing to the appropriate audience (Desirable)
- e. Professional communication including neat production values and conventions of English (Desirable)

3. Importance

- a. Thorough understanding of a problem and multiple perspectives surrounding the problem (Critical)

b. Making universal connections about the importance of communication to success (Important)

c. Making personal connections about the importance of communication to success (Important)

d. Thoughtfully making personal connections to other's experiences (Desirable)

Rubric:

Elements	Review and Resubmit (N/A points)	Basic Understanding (60 points)	Average Understanding (80 points)	Above Average Understanding (100 points)
Depth and Breadth of Research	Little to no evidence	Basic research that covers the main facets of the problem and offers a predictable solution(s)	Thorough research that covers most of the facets of the problem and offers a thoughtful solution(s)	Thorough and insightful research that covers almost all the facets of the problem and offers an innovative solution(s)

Elements	Review and Resubmit (N/A points)	Basic Understanding (60 points)	Average Understanding (80 points)	Above Average Understanding (100 points)
Thought put into solutions	Little to no evidence	Solution(s) is predictable and not well thought out	Solution(s) is thoughtful and well thought out	Solution(s) is creative and all the parameters are well thought out
Analysis of audience	Little to no evidence	Student has targeted a general audience	Student has targeted a specific audience and an authority figure to contact	Student has targeted a specific audience and an authority figure to contact / argument shows an in-depth understanding of the audience

Elements	Review and Resubmit (N/A points)	Basic Understanding (60 points)	Average Understanding (80 points)	Above Average Understanding (100 points)
Professional delivery of argument	Little to no evidence	Tone is conversational, conventions have flaws	Tone is professional and most conventions are met	Tone is professional, persuasive, writing is professional and persuasive

****Teacher direction:** for students scoring in the Basic and Average columns, give detailed feedback about what they need to fix. Offer more points with improved submissions.

Annotation: This rubric helps teachers who don't have a strong background in research by focusing their grading on importance elements like audience and the point of gathering sources.

Assessment Pieces:

1. Initial DBA conversation with instructor to set up research question

Assignment: Pick 2-3 situations you might want to work on and call your teacher for approval. Teacher direction: All assignments after this should be password protected awaiting this assignment. Password protect them all with the same password. When

the student calls for DBA, prompt them to talk about the viability of their topics and the social implications of their problems for them, the local community, and larger connections. Talk about biases and ask the students if they think they have any. The teacher's role is helping students make the most viable choice and realize the problem affects several different spheres. Teachers should give the student the password for all other Unit 1 assignments upon successful completion of this discussion.

Students will submit the date they spoke to their teacher and what topic they were approved for. 30 points.

Rubric

30 points – student calls instructor, is prepared for the call with at least one reasonable topic, provides ideas and works at understanding the social implications as well as bias

20 points – student calls instructor, has at least one reasonable topic, teacher has to lead student to make any connections or analysis

Lower - Rethink topics and connections and call teacher back at a later date

****Teacher should give detailed feedback of what the student needs fix/add in order to achieve mastery on all assignments scoring less than 100%. Students have unlimited submissions.**

Annotation: This rubric helps teachers who are unsure of how to guide a student to a viable topic as well as teachers who might believe student topic selection should be an individual event.

- a. Supports the objective of viable topic selection

- b. Instructional strategy of building relationships and facilitating student selected work in contrast with direct instruction*
- 2. Metacognition about biases (short writing piece)
 - a. Supports the objective of understanding multiple perspectives including one's own
 - b. Instructional strategy of questioning to prompt student discovery*
- 3. Analysis of multiple sides of the argument (short writing piece)
 - a. Supports the objective of understanding multiple perspectives
 - b. Instructional strategy of questioning to prompt student discovery*
- 4. Finding valid sources, creating notes, and a works cited page (writing piece)
 - a. Supports the objective of factual analysis for validity
 - b. Supports objective of creating depth and breadth in research
 - c. Instructional strategy of “chunking” advanced concepts with multiple opportunities for correction*
- 5. Chart for solution analysis (chart)
 - a. Supports the objective of creating and evaluating conceptual solutions to a problem
 - b. Instructional strategy of concept mapping*
- 6. Chart for audience and authority (chart)
 - a. Supports the objective of understanding audience in order to maximize persuasion
 - b. Instructional strategy of concept mapping*
- 7. 10 question grammar, usage, and capitalization quiz (multiple choice)

- a. Supports the objective of basic convention competency
 - b. Instructional strategy of direct instruction with student self-checks*
- 8. Peer editing (performance task evidenced by notes)**
- a. Supports the objective of understanding the value of editing both for content and conventions
 - b. Instructional strategy of peer grouping*
- 9. Final project (student selected method of delivery)**
- a. Evidence of objective mastery
 - b. Instructional strategy of publication for real world connections*
- 10. Reflection (small writing piece)**
- a. Supports the objective of internalizing the importance of the issue and research
 - b. Instructional strategy of peer grouping*

*Due to the static nature of the content in FLVS online courses, teachers really have no discretion in matters of instructional strategy. Teachers do have the ability to scaffold or support students in extra-content areas like live lessons or phone conversations.

Organization: The research project is “chunked” into steps. Students must complete DBA conversations with the teacher who will guide them in creating their research question. They must complete this step to unlock the other assignments. Students are then guided step by step through the research process with options for personalization. Within the course there is progressive disclosure of support elements for students and teachers.

Accommodations: Teachers should use conversation to guide students who are having difficulty into making the correct choice. Teachers can provide some resources, examples, or point students in the right direction. Students submitting sub-standard work should receive detailed feedback on exactly how they should fix their work to make it acceptable. Students have unlimited submissions for assignments. Most assignments have an example of acceptable student work for students to model.

Extensions: At the end of Lesson 8 add offset text box: In the professional world, people don't rely on one contact to get their point across, they use a method called follow-up to ensure their ideas are getting the attention they deserve. After a week has gone by, reach out to your contact again to make sure they received your project. Choose a different method of communication than you did the first time. Be assertive without crossing the line into harassment. Contact your teacher for help or advice.

Standards mapping:

Common Core Standards Map Course:English IV CRIT Module:Segment 1	Unit #1 Speaking to the World			
Conventions Of Standard English Standard: Demonstrate command of the conventions of standard English				
Benchmark: LACC.1112.L.1.1 – grammar and usage when writing or speaking a. Apply the understanding that usage is a matter of convention, can change over time, and is sometimes contested. b. Resolve issues of complex or contested usage, consulting references	Lesson 6 Lesson 7			

Common Core Standards Map Course:English IV CRIT Module:Segment 1	Unit #1 Speaking to the World			
Benchmark: LACC.1112.L.1.2 – capitalization, punctuation, and spelling when writing. a. Observe hyphenation conventions b. Spell correctly	Lesson 6 Lesson 7			
Knowledge of Language Standard: Apply knowledge of language to understand how language functions in different contexts				
Benchmark: LACC.1112.L.2.3 – to make effective choices for meaning or style, and to comprehend more fully when reading or listening. a. Vary syntax for effect, consulting references (e.g., Tufte’s Artful Sentences) for guidance as needed; apply an understanding of syntax to the study of complex texts when reading.				

Vocabulary Acquisition and Use Standard:

Benchmark:

LACC.1112.L.3.4 – Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 11-12 reading and content, choosing flexibility from a range of strategies

- a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
- b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., conceive, conception, conceivable).
- c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, its etymology, or its standard usage.
- d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or

in a dictionary).				
<p>Benchmark:</p> <p>LACC.1112.L.3.5 – Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <p>a. Interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in the text.</p> <p>b. Analyze nuances in the meaning of words with similar denotations.</p>				
<p>Benchmark:</p> <p>LACC.1112.L.3.6 – Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>				

Key Ideas and Details:

<p>Benchmark:</p> <p>LACC.1112.RH.1.1 – Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole</p>	<p>Lesson 3C</p> <p>Lesson 5B</p>			
<p>Benchmark:</p> <p>LACC.1112.RH.1.2 – Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.</p>	<p>Lesson 3C</p> <p>Lesson 5B</p>			
<p>Benchmark:</p> <p>LACC.1112.RH.1.3 – Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.</p>	<p>Lesson 3A, B & C</p> <p>Lesson 5B</p>			

Craft and Structure Standard:				
<p>Benchmark:</p> <p>LACC.1112.RH.2.4 – Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10)</p>	Lesson 7			
<p>Benchmark:</p> <p>LACC.1112.RH.2.5 – Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole.</p>				
<p>Benchmark:</p> <p>LACC.1112.RH.2.6 – Evaluate authors’ differing points of view on the same historical event or issue by assessing the authors’ claims, reasoning, and evidence.</p>	Lesson 3C			

Integration of Knowledge and Ideas Standard:

<p>Benchmark:</p> <p>LACC.1112.RH.3.7 – Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.</p>	<p>Lesson 4</p> <p>Lesson 5B</p>			
<p>Benchmark:</p> <p>LACC.1112.RH.3.8 – Evaluate an author’s premises, claims, and evidence by corroborating or challenging them with other information.</p>	<p>Lesson 3C</p> <p>Lesson 5B</p>			
<p>Benchmark:</p> <p>LACC.1112.RH.3.9 – Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.</p>	<p>Lesson 3C</p> <p>Lesson 5A & B</p>			

Range of Reading and Level of Text Complexity Standard:				
<p>Benchmark:</p> <p>LACC.1112.RH.4.10 – By the end of grade 12, read and comprehend history/social studies texts in the grades 11 – CCR text complexity band independently and proficiently.</p>	Lesson 3C			
Comprehension and Collaboration Standard:				
<p>Benchmark:</p> <p>LACC.1112.SL.1.1 – Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others’ ideas and expressing their own clearly and persuasively.</p> <p>a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.</p> <p>b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.</p>	<p>Lesson 2 (addresses a, c, and D)</p> <p>Lesson 7 (addresses b, c, and d)</p> <p>Lesson 8 (addresses c)</p> <p>Lesson 9</p>			

<p>c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.</p> <p>d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.</p>				
<p>Benchmark:</p> <p>LACC.1112.SL.1.2 – Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.</p>	<p>Lesson 4</p> <p>Lesson 5B</p> <p>Lesson 8</p>			
<p>Benchmark:</p> <p>LACC.1112.SL.1.3 – Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises,</p>	<p>Lesson 3C</p> <p>Lesson 7</p>			

links among ideas, word choice, points of emphasis, and tone used.				
Presentation of Knowledge and Ideas Standard:				
<p>Benchmark:</p> <p>LACC.1112.SL.2.4 – Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.</p>	<p>Lesson 5 A & B</p> <p>Lesson 6</p> <p>Lesson 8</p> <p>Lesson 9</p>			
<p>Benchmark:</p> <p>LACC.1112.SL.2.5 – Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.</p>	<p>Lesson 5B</p> <p>Lesson 8</p>			
<p>Benchmark:</p> <p>LACC.1112.SL.2.6 – Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate.</p>	<p>Lesson 6</p> <p>Lesson 8 if</p> <p>students</p> <p>choose phone</p>			

	option			
Text Types and Purposes Standard:				
<p>Benchmark:</p> <p>LACC.1112.W.1.1 – Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.</p> <p>a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence.</p> <p>b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience’s knowledge level, concerns, values, and possible biases.</p> <p>c. Use words, phrases and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and</p>	<p>Lesson 5B</p> <p>(solution is a claim)</p> <p>Lesson 8</p>			

<p>evidence, and between claim(s) and counterclaims.</p> <p>d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</p> <p>e. Provide a concluding statement or section that follows from and supports the argument presented.</p>				
<p>Benchmark:</p> <p>LACC.1112.W.1.2 – Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.</p> <p>a. Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables) and multimedia when useful to aiding comprehension.</p> <p>b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details,</p>	<p>Lesson 5B</p> <p>Lesson 8</p> <p>Lesson 9</p>			

<p>quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>c. Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>d. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic.</p> <p>e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</p> <p>f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>				
<p>Benchmark:</p> <p>LACC.1112.W.1.3 – Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.</p> <p>a. Engage and orient the reader by</p>				

<p>setting out a problem, situation, or observation and its significance, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.</p> <p>b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters.</p> <p>c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome (e.g., a sense of mystery, suspense, growth, or resolution).</p> <p>d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.</p> <p>e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.</p>				
Production and Distribution of Writing Standard:				
Benchmark:	Lesson 5B			

LACC.1112.W.2.4 – Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	Lesson 7 Lesson 8			
Benchmark: LACC.1112.W.2.5 – Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	Lesson 4 Lesson 5 A & B			
Benchmark: LACC.1112.W.2.6 – Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.	Lesson 7 Lesson 8			
Research to Build and Present Knowledge Standard:				
Benchmark: LACC.1112.W.3.7 – Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	Lesson 4 Lesson 5B			

<p>Benchmark:</p> <p>LACC.1112.W.3.8 – Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p>	<p>Lesson 3C</p> <p>Lesson 5B</p>			
<p>Benchmark:</p> <p>LACC.1112.W.3.9 – Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply grades 11-12 Reading standards to literature (e.g., “Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including how two or more texts from the same period treat similar themes or topics”)</p> <p>b. Apply grades 11-12 Reading standards to literary nonfiction (e.g., “Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of</p>	<p>Lesson 4</p> <p>Lesson 5B</p>			

<p>legal reasoning [e.g., in U.S. Supreme Court Case majority opinions and dissents] and the premises, purposes, and arguments in works of public advocacy [e.g., The Federalist, presidential addresses]”).</p>				
<p>Range of Writing Standard:</p>				
<p>Benchmark:</p> <p>LACC.1112.WHST.4.10 – Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.</p>	<p>Lesson 5B</p>			

APPENDIX B:
CONNECTING RESEARCH WITH PRACTICE: CONTENT FOCUS

APPENDIX B:
CONNECTING RESEARCH WITH PRACTICE: CONTENT FOCUS

Design Principle	Research Basis	Sample Lesson or Element of Created Curriculum	Connection to Design Principle
Content should be visually appealing.	Content and assignments that are highly interesting and motivating to the population both visually and cognitively.	Element: highly interactive digital curriculum including roll overs, self-checks, video, and audio.	By making the curriculum visually appealing, students are more likely to be interested and motivated.
Content and assignments should offer student choice to engage student motivation.	Student centeredness, creating positive emotions around the course experience.	Lesson 1: students can choose the topic of their research project.	Students can choose what motivates them and use that topic to demonstrate skill mastery.
Content and assignments should be relevant to life outside of school and the content of that particular course.	Overt connection of coursework to real world skills.	Element: overt connection in the unit explaining how research is used in a variety of real world situations, careers, and continuing education.	By making students overtly aware of how they will use specific skills when they get older, they will understand the importance of acquiring the skills.
Delivery of instruction and content should be appealing, engaging, and relevant to the student population.	Academic support in the form of one-on-one interactions with focus on relationship-building between instructor and student.	Lesson 1: students can choose what is appealing and engaging to them for a research topic. Element: course design is highly interactive.	Allowing students to pick what interests them, the course can appeal to a wider variety of student and be inherently motivational.
Content and visual elements of design should be easily updatable for changing trends in technology, education, or	Accommodations for various cognitive difficulties. Accommodations for student equipment and access.	Element: the digital medium allows for modular changing of interactives, video, and audio within the course.	Developing curriculum in a digital medium allows for easy updating to stay ahead of student interest trends. Allowing student choice in assignment topics and production

student population.			creates accommodations for student interest and ability.
There should be a clear connection between content, assignments, and skills needed for mastery.	Clarity in instruction and assignments.	Elements: overt content connection between the skills and their use in real world applications. Assignments delivered in the form of charts for clarity between skill and product.	Every step of the process is guided by overt content and instructional delivery that focuses on why these skills are useful and necessary.
Content should not be repetitive. Core skills should be covered succinctly.	Content and assignments that are highly interesting and motivating to the population both visually and cognitively.	Element: a minimum number of assignments. Focus on a large project assignment broken into skill based steps without repetition.	In creating a large product, students are doing a small number of assignments but understanding their connection to a real world product. Overt instruction is given about the use of multiple skills contributing to a real world product.
Content should be student centered, interactive, and work to set up as well as foster student/teacher relationships.	Content and assignments that are highly interesting and motivating to the population both visually and cognitively. Academic support in the form of one-on-one interactions with focus on relationship-building between instructor and student.	Lesson 1: the large research project allows student choice of topic. Steps in selecting a topic are guided by teacher/student relationship.	The role of the instructor is to help the student find what interests them and how acquiring skills to further that interest will transfer to their future needs.

APPENDIX C:
CONNECTING RESEARCH WITH PRACTICE: PROFESSIONAL
DEVELOPMENT FOCUS

APPENDIX C:
CONNECTING RESEARCH WITH PRACTICE: PROFESSIONAL DEVELOPMENT
FOCUS

Design Principle	Research Basis	Sample Lesson or Element of Created Curriculum	Connection to Design Principle
Instructors should be certified in the subject area the course covered, have several years of experience in the specific content, and be rated as highly effective.	Curriculum delivered by a highly effective instructor.	Element: as an element of implementation and state requirements for teaching in field, instructors will be certified in the subject area and have knowledge of the previous digital incarnation of the courses. (Although the pilot will assess teachers from all three evaluation ranges to assess the connection between teacher evaluation level and student success.)	Students need to feel that a teacher is competent in the field to have faith in the teacher/student relationship.
Instructors should be chosen based on their affinity for the philosophies of course design as well as a lack of negative feeling toward credit recovery as a program.	Student centeredness, creating positive emotions around the course experience.	Element: The role of the instructor in the course is that of a coach, guide, and mentor. Instructors should work to foster positive student/teacher relationships that progress toward skill acquisition. Lesson 2: DBA assignments rely heavily on positive teacher/student relationship.	Instructors with a positive attitude toward the philosophies of the course design will be more likely to engage in student centeredness and create a positive course experience.
Instructors should receive direct course based professional development including examples/non-examples	Instructors need to have effective professional development geared to	Element: as an element of implementation, instructors will be given extensive training on content delivery and	Developing positive relationships with students is based in teacher proficiency and efficacy beliefs.

of student work, rubric training, and program philosophy training.	specific population.	philosophy. The teacher/student ratio will remain low in order to allow teachers the time to foster positive relationships with students.	Professional development should work to focus on specific course elements to produce proficient and efficacious teachers who understand the population's need for positive interaction.
Primary professional development should focus on developing relationships and assessing student mastery/proficiency.	Academic support in the form of one-on-one interactions with focus on relationship-building between instructor and student.	Lessons 2 & 3: Instructors work closely with students to develop student interests into a viable research topic. Element: course content focuses on fostering student/teacher relationships with one-on-one interactions and immediate individualized feedback.	Creating instructors who are primarily focused on relationships to create mastery will work to create a positive and supportive student environment.
Secondary professional development should focus on creating student success plans, monitoring, and engaging students in the content.	Immediate intervention in the form of recognition and feedback.	Lesson 2: students and teachers have to work together to develop a topic of high student interest before students can move on in the course. Student monitoring and success plans are created at the onset of the student's work in the course. Element: continuous, immediate, positive feedback is built into the delivery of the content.	Focusing on student progress and success creates a positive teacher/student relationship and lays the foundation for student success.
Enrollments for individual instructors should be kept low enough for instructors to foster relationships with	Academic support in the form of one-on-one interactions with focus on	Element: implementation plans cap teachers at 125 students.	With a limited number of students, instructors can remember specific elements of student learning, need, and

their students.	relationship-building between instructor and student.		personal situations in order to create and foster relationships.
Extensive professional development should take place before instructors are paired with active students.	Instructors need to have effective professional development geared to specific population.	Element: implementation plans call for professional development discussing the variety of reasons students need and receive credit recovery as well as sensitivity training geared to help teachers foster and guide student/teacher relationships.	Overt training helps teachers avoid failure bias and understand the needs of the student population thus increasing the chances for the teacher to engage in positive relationship building.

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