A DESCRIPTIVE STUDY OF PLATO AS A PROPOSITION FOR

REGULAR EDUCATION CLASSROOMS

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

In Partial Fulfillment
of the Requirements for the Degree

Doctor of Education
in Professional Leadership

by

Vivian N. Bennett

May, 2011

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ABSTRACT

The study describes the historical timeline for public schooling, multicultural education, educational trends and PLATO (Programmed Logic for Automated Teaching Operations). More specifically, the literature highlights the self-paced practice of PLATO. Since the luminescence of the healthcare referendum has grown dim, education has taken the forefront in the political spectrum. The sense of urgency to revamp the current system is partly due to America's global ranking. The literature review has left the quench to explore a derivative of PLATO as an option in the regular education classroom.

A combination of qualitative and quantitative methodologies will be explored. Two district administrators, instrumental in acquiring PLATO for a southeast Texas district, will be interviewed; and, culminating data will be shared in the forms of cross tabulations, frequency tables, and graphs using archival data furnished by the district. Specially requested were the demographic - i.e. gender, ethnicity, age, socioeconomic status - of the 2010-2011 enrollees along with the number of credits recovered. The results of this study will be viable for districts which are on the cutting edge of transforming schools for 21st century learners.

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Chapter One: Introduction

The ancient Proverbs states, "Where there is no vision, the people will perish…" (KJV, 427). Those are pretty grim words - yet true. There is an appearance that we are in a state of an emergency (Ripley, 2008). America's public educational system is analogous to people frantically preparing for a natural disaster destined to land in a few hours. The scene is filled with people grabbing anything in sight without a planned list. Recognizing the dilemma is the initial step; yet, deciding who determines the plan on how to educate future generations and implementing the proper prescription to halt the educational bow in order to navigate in the right direction is the challenge.

Since the establishment of the Constitution, education has been affiliated with the political arena (Christensen, Horn, & Johnson, 2008). *Abbott V* and the No Child Left Behind legislation (NCLB) are two landmark educational reforms that have attempted to create separate and equal urban education. On the contrary, the results of the Supreme Court ruling and federal regulation are narrowed curriculum, preparation centers for standardized testing and an untouched achievement gap (Gold, 2007). At any rate, the debate continues as to whether public schools have moved more towards equality or turned back the hands of time. The division of Blacks and Whites has occurred for so long that people have become desensitized by separation. Massey and Denton said, "…it [segregation] seems a natural part of the social order, a normal and unremarkable feature of America's urban landscape" (1993, p. 17). Substantial variance in economics is the new face of segregation and gives the appearance that race is still the determining factor (Gold, 2007). In 1991, Jonathan Kozol summed up inequality when he stated:

If they first had given Head Start to our children *and* pre-kindergarten, and materials *and* classes of 15 or 18 children in the elementary grades, *and* computers *and* attractive buildings *and* enough books and supplies *and* teacher salaries sufficient to compete with the suburban schools, and then come in a few years later with their tests and test-demands, it might have been fair play. Instead, they leave us as we are, separate and unequal, underfunded, with large classes, and with virtually no Head Start, and they think that they can test our children into mechanical proficiency. (p. 143)

America is unique in that we try to educate all in preparation for college (Christensen, Horn, & Johnson, 2008, p.38); whereas, in other countries, students are trained for other postsecondary opportunities (Lui, 2010). "No child left behind" is a catchy title that leads citizens to believe that the government was committed to fulfilling the Dream (Darling-Hammond, 2007). The articulated objective of the NCLB legislation was that every student will score proficiency in math and reading by 2014 (Gleibermann, 2007). With the commitment being success for all, the framework of the present education system will need redesigning (Christensen, Horn, & Johnson, 2008, p.4), starting with the staff development trainings that are to prepare teachers to meet the needs of the students. For too long, "…school districts [have] embrace[d] professional development models that are culturally and linguistically non-responsive to the learners to whom these models are applied", producing ill-prepared teachers (Scott, 2010). Gleibermann extends the thought when he states that, "Our school system is based on a 19th-century factory model that cycles 150 students a day through a teacher's classroom, a process never intended to ensure all students achieve high-level skills" (2007, p. 20).

During this time period, most jobs required only basic knowledge. In *Phi Delta Kappan*,

Gleibermann expounds by reporting:

> In previous generations we did not worry about everyone reading at grade level or
>
> about having 100% graduation rates. We did not equate dropping out with being
>
> left behind. The young people who could not make it in the one-size-fits-all
>
> system could pursue vocational education or work in a factory or on a farm.
>
> But today, in a society where almost all living-wage jobs require a high school
>
> education, we demand that everyone be competent. (p. 23)

Therefore, universal success necessitates an alternative school model, and the current

testing regimen and higher teacher qualifications must not distract people from the root of

the problem any longer - micromanaged instruction (Gleibermann). Consequently, groups

of Texas superintendents have convened over twenty-one months to create a "work in

progress" as a driving force to steer conversations of the legislators, who ultimately

determine the look and outcome of the education system. "The schools we need are

community-owned institutions... [and] free of bureaucratic structures that inhibit multiple

paths to reaching goals" (TASA, 2008, p. 5). Among other objectives, the

superintendents hope to communicate the vision for transforming Texas's public schools.

Mostly minority and the economically disadvantaged are at-risk; and,

perpetuating failure by just analyzing test results and failing to appropriately respond is

self-hatred. In Race Matters, Cornell West writes, "…people, especially degraded and

oppressed people, are also hungry for identity, meaning, and self-worth" (2001, p. 13).

This comes from acquiring training to make a meaningful contribution to society. In his

second annual back to school message, President Obama stated, "it's [education] about

giving each and every one of us the chance to fulfill our promise, and to be the best version of ourselves we can be" (President Obama's speech, September 2010). Therefore, if one group is suppressed and fails, then we all suffer (West, 2001).

Beyond the Borders

2 Million Minutes is an eye-opening documentary that compared educational programs in the U.S., China, and India by shadowing a male and female, top-performing student from each country. Mark Bauerlein (2009) captured the sense of urgency in words when he stated: "If the American boy and girl landed in an Asian classroom, they would sink to the bottom in a week. Call it classroom Darwinism with predictable results. It's a survival-of-the-smartest world, with few survivors" (p. 87).

The video is not a one-time flick that should be watched by students and staff; however, it should be the driving force within us to embrace a different "look" at how America educates its children. Without forsaking the comparison of student groups within the country, President Obama is attempting to transition the country to look beyond the borders. In September, he gave a public address to students in Pennsylvania where he stressed that education has never been as important as it is today. "…[Now] other countries are competing with us like never before when students around the world - Beijing, China, or Bangalore, India - are working harder than ever, and doing better than ever, your success in school is not just going to determine your success, it's going to determine America's success in 21st century" (President Obama's speech, 2010). During his reign as President, George Bush, along with 50 governors, comprised national goals with one being that America would rank at the top in math and science by 2000. Yet, it

had not been fulfilled by 2009 when the Organization for Economic Co-Operation and Development (OECD) noted that out of 40 developed countries, the United States ranked nearly last in math at 31st and 23rd in science (Fleischman, Hopstock, Pleczar, Shelley, 2010).

There are those who believe that the political conversations should be about the economic depression. Rather, ignoring the pervasive problems in education equates to even more failure. President Obama's speech, *The Importance of Education Reform*, emphasized that education is "the" economic issue of our time (July, 2010). Further he stated, "It [education] is an economic issue when eight in ten new jobs will require workforce training or higher by the end of this decade. It's an economic issue when countries that out-educate us today are going to out-compete us tomorrow" (July, 2010). America's crisis is reminiscent of the turmoil China grappled with during its economic and educational downturn. China implemented the strategy of revving up the country through science and education. Still, education is the priority of the social modernization movement (Gou, 2005). Darling-Hammond concurred that Finland, Singapore, and South Korea's educational practices and philosophies were revamped in the 1970's in an effort to compete with other countries (2010). "Their [Finland, Singapore, and South Korea] investments have catapulted them from the bottom to the top of international rankings in student achievement and attainment, graduating more than 90 percent of their young people from high school and sending large majorities through college, far more than in the much wealthier United States" (Darling-Hammond, 2010).

For some time, reports have been published of comparative analyses in which one country may adopt the same or similar practices from another country (Gutek, 2006).

One of the first comparative reports was compiled by Terrel Bell in 1983 from the National Commission on Excellence in Education. He concluded that:

> In many other industrialized nations, courses in mathematics (other than arithmetic or general mathematics), biology, chemistry, physics, and geography start in grade 6 and are required of all students. The time spent on these subjects, based on class hours, is about three times that spent by even the most science-oriented U.S. students, i.e., those who select 4 years of science and mathematics in secondary school. (p. 20)

> In England and other industrialized countries, it is not unusual for academics high school students to spend 8 hours a day at school, 220 days per year. In the United States, by contrast, the typical school day lasts 6 hours and the school year is 180 days. (p. 21)

> By the President's initiatives to address students as a part of heading back to school and giving bullets of information to kick off his educational initiatives, is evidence that America's leaders are taking a more humbled look at what other countries are doing successfully. Even though for years we've known that education is the pathway to prosperity, we have remained complacent with a status quo where America trails behind other nations (President Obama's speech, July 2010). In summary, "we've talked about it, we know about it, but we haven't done enough about it. And this status quo is morally inexcusable, it's economically indefensible…" (President Obama's speech, July 2010). The nation is destined to change given the flat world in which one resides (Darling-Hammond, 2010). For this reason, we cannot afford to allow classroom resources and pedagogical practices to remain the same. In short, York-Barr, Sommer, Ghere, and

Montie's (2006) advice is applicable to those who may be in opposition to a new look of teaching and learning because the goal may seem lofty or out of the norm. They said:

> At first, engaging in new ways of thinking and doing feels awkward, inefficient, and even ineffective. There is a propensity to disengage early in the learning process because it doesn't feel right and because better results are not readily apparent. Over time, however, new ways of thinking and doing become more fluid, automatic, and embedded into practice. (p. 41)

An Epidemic: Failure

Andy Hargreaves is sought out all over the country for his expertise. In The Fourth Way, Hargreaves and Shirley reported that "Teach Less, Learn More" is emphasized in Singapore. There is a required 10 percent "white space", which allows teachers to incorporate creativity into the classroom instruction (2009). Above all, the authors included that Finland, which is known for high student achievement, has steered clear of standardized tests; whereas in America, the No Child Left Behind (NCLB) legislation has fostered more standardization and is viewed – by some - as, "…the most negative brand in America" (Hoff, 2007, p. 114). And, due to the NCLB, test scores have been inflated, in part by eliminating certain populations of children, mostly minority students (Dobbs, 2003).

John Maxwell revealed seven myths about leadership. Ironically, Myth #1 states, "I can't lead if I am not at the top" (2005, p. 1). Someone may be wondering what leadership and someone's personal story have in common - a lot. Leading from the middle has a profound impact on those at the top. In essence, parents have tremendous

influence over the education system by sharing their stories and voting for the public representative aligned with their values.   Parents have broken their silence about the educational hardships experienced, only to find out that they were not alone. In fact, some middle class families have sought out additional support in the form of private tutoring or programs like Kumon; however, not everyone is privy to the resources.

The increasing standards, shrinking numbers of students receiving special education services, and exiting of students from the ESL program rapidly are compounding, secondary issues in schools. General education instruction is very general as a means to get to the end - standardized testing. The entire process takes on the resemblance of an assembly line, where a product enters the factory as individual parts then trickle down the conveyor belt getting exposed to more material with very little time at the station. Hopefully, the product gets the part needed; because, at any given moment, the belt moves again whether the part is there or not. Once the product gets to the end of the assembly, the final destination is determined. If the item does not have every part in the designated spot, then it is determined to be defective. Depending on the item, it could be sold for a cheaper price or deemed worthless and tossed out. Every school year, America's children experience a school system that shoves information their way, whether they get it or not. At the end of the year, the learner has a high probability of being labeled as at-risk, low-achiever, ineligible for special education, other health impaired, or learning disabled. Though statistics may show a correlation between minority groups and failure, there are children in every ethnicity and economic bracket who bear some of these negative labels (TEA, 1993). Grouping students into such negative categories is despicable and is the opposite of Bandura's theory about self-

efficacy (Jimerson, 2001). Hopefully, the corporate essentialists, commonly called policy

makers, will conclude that the traditional practices are ineffective. The President

informed students that education is a partnership between the students, parents, schools

and government. Besides, "…you've got an obligation to yourselves, and America has

an obligation to you, to make sure that you are getting the best education possible"

(President Obama's speech, September 2010). Accommodations may come in the form

of peer-modeling, self-paced instruction, or differentiated instruction, but are more costly

than retention. The authors provide a sample calculation using Florida's statistics to

substantiate how inexpensive retention is compared to other forms of instructional

support (Jimerson, Pletcher, & Graydon, 2006, p. 86).   Though most important is that

homogenous instruction may work for clones in a scientific experiment but not with the

country's investments – the learners (Barshis, 1984).

The learning environment that solicits diversity should not tattoo negative titles to

students for not conforming to "the way we've always done it" instruction. Instead, those

in charge should empower teachers and other school personnel to provide instruction that

is preferential to the learner. When in full effect, democracy is complicated and extends

beyond facilities, classroom materials and curriculum. Besides, social justice involves

some intangibles, such as learning preferences. (Neito's speech, Dec. 2006) Since

retention has been proven to not work (Siegel and Bruno, 1986), might it behoove

decision makers to divert their attention to the latest advertisement of higher education -

using technology as a medium instead of using computers for presenting and organizing

data?

The trendy look in higher education and some high schools is not just the presence of laptops but student-centric, web-based learning.   In fact, the University of Houston has kicked off an innovative doctoral program in response to 21st century learning styles. The program entails on-line course work, hybrid classes, and traditional forums. Universities have marketed on-line classes to accommodate those in the workforce or who need flexible hours due to other life constraints. High schools are lagging behind the technological learning curve, but some are taking baby steps to catch up. One district in southeast Texas has opened up The Academy of Choice, where students have options to enroll in traditional, dual credit, or virtual courses. School hours are from 7 am to 8 pm. In essence, the program is an anomaly. In another southeast, Texas district, PLATO (Programmed Logic for Automated Teaching Operations) is used for credit recovery purposes. The students who are enrolled in PLATO courses meet certain criteria that make them at-risk for not graduating from high school. Taking a closer look at the data and a computer-assisted instructional system, such as PLATO or compatible programs, may prove to be a great "fit" in regular classrooms for those whose learning seems stagnated by conventional instructional methods. This may be a proactive step in altering the pathway that leads to failure. Seemingly, since schools live in the reactive mode of trying to fix what years of a broken system has created by having massive interventions and establishing credit recovery for students who are one or more years behind, the self-paced, computer program may be the missing component to having learners escape negative labels and master the criteria needed for a 21st century graduate.

Summary

President Obama's perspective of America's global competitiveness, the strides of moving towards a more inclusive culture, and the advancements of instructional practices are some of the pillars to the literature review. Author Ashe said, "True heroism is remarkably sober, very undramatic. It is not the urge to surpass all others at whatever cost, but the urge to serve others at whatever the cost" (Maxwell, 2005, p. 51). For the leaders to heed Ashe's words will be when the Jiaku-jisheru Principle (self-study, self-learning) is woven into the fabric of America's educational system. Offering the option of self-paced learning would help eradicate the mindset of "…I've done everything within human limits to help students succeed: I didn't leave any child behind; those failing left themselves behind" (Gleibermann, 2007). Embracing diversity starts with the education of children and giving students the opportunity to experience success in the form of mastery instead of doing what we've always done.

Primary Research Questions:

1. How many students recovered credits during the Fall and Spring of 2010-11?

    a. How many African Americans, Whites, Hispanics, Economically Disadvantaged and Non Disadvantaged recovered credits?

2. Why did district leaders select PLATO?

    a. What were the perceptions of two district administrators with regards to whether PLATO is meeting the needs of enrollees?

Literature Review

The following is a literature review that focuses on a self-paced, technology program called PLATO (Programmed Logic for Automatic Teaching Operations). The purpose of the literature is to present the program for consideration in regular education classrooms, since there is a growing disparity between academic levels within classrooms. By journeying through America's history, it is evident that the exclusion of specific groups was blatant until legal rulings abolished such practices. Education is a civil right; and, not meeting the needs of all classroom inhabitants is an infringement. Therefore, if PLATO meets the needs of a non-traditional group of students, then I propose that districts take a closer look to determine if offering PLATO as an option in traditional classroom settings is taking one step to closing the achievement gap between ethnicities and social classes.

The first section will outline milestones that took place throughout history advancing from segregated classrooms and inequality to cross-cultural student bodies. Included are literature on the No Child Left Behind legislation, achievement gap data, Paulo Freire's pedagogy, and Albert Bandura's self-efficacy study.

The next section uncovers options in education ranging from retention to Response to Intervention (RtI). In the southeast Texas school district, there has been a huge initiative in the form of Differentiated Instruction (DI) in an effort to fulfill the reauthorization of the Individuals with Disabilities Education Improvement Act (IDEA; P.L. 108-446, 2004). In this part, the literature reveals various instructional practices that have been implemented. Besides DI, Marzano's strategies are the backbone of this district's classroom expectations; to emphasize, district administrators frequently monitor

instruction – outside of the teacher appraisal system (PDAS) – in the form of an instrument called Mega Monitoring.

      The last section, "Great Use of Technology," examines the PLATO program and incorporates some of the principles of Kumon, a supplemental learning program. Hopefully, this literature review will assist some districts embarking upon a different pedagogy for 21st century learners as well as those who are paralyzed by the fear of being a trendsetter.

Chapter Two: Review of Related Literature

Included in this document is related content in the form of a literature review. The history of America's educational system, insufficient deposition of embracing multicultural education, display of current trends and recapturing of America's lead in globalization are presented leading up to the descriptive study of PLATO (Programmed Logic for Automatic Teaching Operations). With a clean thought palate, the desire is to foster ideas about realistic, new century instruction. Robert Rosenthan (1991) and other researchers, Hunter and Schmidt (1990), countered the Coleman report by proving that instruction – indeed - has a direct correlation to student achievement. Consequently, *"transformation* is intended to make it possible to do things that have never been done by the organization undergoing the transformation. It involves metamorphosis: changing from one form to another form entirely" (Schlechty, 2009). The briefings featured are evidence for the consideration of self-paced instruction and assessment as the norm in all classrooms by the way of technology in the form of software generated or web-based instruction.

History

The Milton Gordon theory identifies America as a "cultural pluralistic" society based on its cultural diversity; conversely, this has not always been the case (Washburn, p. 95). Dating back to the nineteenth century and even earlier, education was afforded to wealthy, white males; and, if white females wanted a formal education, then their families had to invest in private tutoring (Thattai, n.d.). Attending a school facility was

not an option. During the first half of the century, Horace Mann entered the scene as a

major proponent of free, public schools being supported by state taxes (america.gov).

Diane Ravitch, a historian researcher, reported that Mann saw education as the pathway

to concurrently cultivating citizens' talents and progressing the nation's economic system

(2008). As with many new ideas geared at servicing outsiders, which in this case is

defined as a group of people who lack wealth and/or are immigrants, Mann was met with

opposition (america.gov). The article "Rise of the Public Schools" summarized that he

envisioned a system that would educate all at the expense of the government because

knowledge would lead to responsible citizenship (america.gov). Hunter Brimi concurred

when he stated that, "…one of public education's purposes in America has been the

development of moral citizens" (Brimi, p. 125). Though, don't be misguided by the word

"all" to mean everyone from every race and social class. To repeat, in this era, the word

"all" applied to white males and females from every financial background (america.gov).

Over the past two centuries, milestones such as the Bill of Rights, abolition of slavery,

the Thirteenth, Fourteenth, and Fifteenth amendments to the Constitution, as well as the

1928 Voting Rights Act for Women and the *Brown v. Board of Education* Supreme Court

decision of 1954 gave more rights to those who had been excluded (Banks, 2007). Even

though society endured volatile times to accommodate more groups of people, still the

American education system has barriers to overcome (Banks, 2007). Nieto and Bode

(2008) wrote:

> Schools' policies and practices and the societal ideologies that support them must
>
> also be confronted and transformed. That is, we need to create not only *affirming*

classrooms but also an *affirming society* in which racism, sexism, social class

discrimination, heterosexism, and other biases are no longer acceptable. (p. 7).

Multicultural education

While honing in on America, understand that countries are intertwined in that all

countries are impacted, positively or negatively, by the well-being of the other nations

(Gutek, p. 20). To begin, politics are the undercurrents of most countries' educational

systems, at least in America and China (Gutek, 2006). For this reason, the worth and

values of a country are determined by how the most vulnerable group is treated, namely

our children (Sizer, 2004). Freiberg noted, "Today's children are our leaders for the

future and the generation we will depend upon to care for us in our twilight years. We

will reap the legacy of both our successes and our mistakes" (1990). Is education a right

or privilege? Over 90 percent of people agree that education is a birthright (Washington,

D.C: Author, 2001). Consequently, the governmental hierarchy and citizens' opinions

necessitate diving into literature and conversations about the current status of not just

America's educational state but also beyond its borders. "Public education remains the

last and best hope for many young people for a better life." (Neito and Bode, 2008, p. 4)

These authors allude to racial/ethnic differences; nevertheless, there is a different lens -

academic injustice. Within the psyche is the struggle between whether or not today's

classroom practices are an infringement upon the civil rights of specific ethnic groups.

Previously mentioned was a document commissioned by the Reagan administration

called *A Nation at Risk.* From here, common educational standards were born as a result

of Terrell Bell's report in the form of broad, statewide curricula and a constriction of

creativity in the classroom (National Commission on Excellence in Education, 1983).

Commentary by Andy Hargreaves (2009) states:

> However, after the energy and initiative of the interregnum, markets and diversity were quickly trumped by standardization and uniformity. In the United States, statewide high-stakes tests were increasingly administered to all students - even those who were newly arrived from abroad, without the barest rudiments of English. (p. 9)

Because reports show that the ethnic breakdown in America has changed over the years, there is a need for policy makers to take a closer look at the compatibility of traditional practices with all races (TEA, 1998). "The nation's population of people of color is considerably outpacing the growth of the White population. However, as the nation's people of color grow in number, so do their poverty and powerless[ness]" (Banks, p. 5). Furthermore, Banks states that the knowledge shared in institutions, such as schools and universities, is slanted to reflect the interest and goals of the dominant groups (p. 15). Is it possible for public education to meet the educational need for every student in America without biases? According to Maxwell, "French novelist Andre' Gide said that, 'an unprejudiced mind is probably the rarest thing in the world" (2005, p. 194). There is little need to deliberate over the implementation of individualized instruction, especially when, "It means treating everyone in the same way will not necessarily lead to equality; rather it may end up perpetuating the inequality that already exist" (Neito and Bode, p.9). Most authors proclaim that bountiful literature suggests, "…that accommodation in multicultural situations be achieved by empowering students to choose

the learning activity and instructional method" (Irvine &York, 1995; McLoughlin, 2001).

Minimizing the traditional practices while giving rise to more choices depicts America's

founding principles of democracy, freedom, and diversity; hence, the need for

multicultural education.

In searching for a definition of multicultural education, one literature piece by

Nieto and Bode gave a portrait of the term's polar opposite. Overall, the authors see

schools having shrunken multicultural education to a stereotypical context of food, dress,

or ethnic celebrations (Nieto and Bode, p.2). Neito and Bode go on to propose that

"*Multicultural education is a philosophy, a way of looking at the world,* not simply a

program or a class or a teacher" (p. 50). Besides multicultural education being a school

of thought, it is inclusive of instructional practices used to educate the citizens.

Multicultural education should not be viewed as a reform initiative because America's

experience with reforms seems as if they are swaying fads (Cuban, p.3). Instead, "It

[multicultural education] needs to take into account our history of immigration as well as

the social, political, and economic inequality and exclusion that have characterized our

past and present, particularly, our educational history" (Neito and Bode, p. 3). Henderson

falls into alignment with Neito and Bode's view when he espoused that "multiple

cultural" instruction welcomes minority and majority ethnicities as well as frames both

the constructivist and instructivist theories (Henderson, 1996). Nonetheless, the campus

level transformation must take place with the teachers. Meaningful staff development

should provide a cultural awareness about the students being served (Hogan-Garcia,

2003). Without the training, teachers are more apt to teach the way they were taught. The

authors demand that curriculum and pedagogy must be reflective of America's value of

inclusion in which the classrooms should celebrate differences. Furthermore, Nieto and Bode articulate that:

> Beyond the classroom level, achieving social justice requires reforming school policies and practices so that all students are provided an equal chance to learn. This entails critically evaluating policies such as high-stakes testing, tracking, student retention, segregation, and parent and family outreach, among others. (p. 10)

Multicultural education encompasses more than varied ethnicities and socioeconomic groups. However, general education students, special education students, and those who have not been screened or have been disqualified for services would benefit from true, multicultural education. According to Madeleine Will (1986), philosophers agree that there are four consequences to the current system: eligibility and screening processes are known to exclude, associates a stigma to those who do qualify for special programs, addresses failure instead of prevention, and has the potential to foster miscommunication between the school and the parents.

Also, Will wrote:

> …the language and terminology we use in describing our education system is full of the language of separation, of fragmentation, of removal. To the extent that our language reflects the reality of our system as many diverse parts never or rarely connected as a whole it reflects a flawed vision of education for our children. (p. 412)

Academic Achievement Gap

Enrollment trends in Texas Public Schools have shown a shift in ethnicity and socioeconomic status. Over time, "…the number of Hispanic students has increased by 45 percent in the last decade more than double the growth of the total student population" (Texas Education Agency, 1998). Though, the highest growth rate of 63 percent was seen in the "other" minority subpopulation – comprising of Asians/Pacific Islanders and Native American – while Whites grew only by 5 percent (TEA, 1998). Furthermore, the TEA report uncovered that the African American rate is increasing but not at the exponential rate of "other" minority groups. Even though these statistics are over ten years old, the pattern appears to be congruent with a southeast Texas city (Mellon, 2010). Suspicions are that increased immigration and a change in birth rates have impacted the groups over time. In the same article, one might intuitively gather that a correlation exists between the attributes driving the variances and socioeconomics. In other words, the low income numbers are up nearly ten percent from ten years prior because of the influx of specific ethnic groups. Bringing this data into the realm of education, it is not a secret that achievement margins exist between sub-populations, which are based on economic class and race. According to Erika Mellon (2010), "The rapid changing make-up of the Texas public school classroom poses growing challenges for the state. Impoverished and disadvantaged children are more likely to falter academically and drop-out, and educating struggling students can be costly".

Undoubtedly, many educators would intuitively agree: Failure is not an option for today's students - at least not one we would conceivably choose. Although

clearly students *may* fail, and indeed many do, the consequences are generally too

dire to *allow* for such an option (Springfield, 1995, p.2).

The Average Eighth-Grade National Assessment of Educational Progress (NAEP)

Reading and Math 2007 Report shows Whites have a significantly higher passing rate

than Hispanics and African Americans respectively in both subject matters (Barton &

Coley, 2009). Higher income students consistently exceeded lower income students, too

(p. 5). Though data may be a catalyst to foster change, be weary of its overall effects.

"We continue to confuse test scores with quality schooling even though there is no

evidence that high scores on these tests predict anything about a child's success in life

after school" (Meier & Wood, 2004, p.xii). "It is important to remember that NCLB, the

2002 reauthorization of ESEA, was born in bipartisan spirit to do something positive in

the wake of the terrorist attacks of September 11, 2001" (Meier & Wood, 2004, p. viii).

The federal government passed the "No Child Left Behind" Act in order to reform the

education system so that 100% of the children would test proficient in core math and

literacy skills by the year of 2014 (Gleibermann, 2007, p.20). Realistically, will NCLB

legislation ensure that all students will score proficient in all tested areas regardless of

language deficiencies, emotional hardships, curriculum overdrive, teacher preparedness,

cultural nuances, and other external factors? "Unfortunately, this law, though rhetorically

appearing to address these problems, actually threatens to leave more children behind"

(Darling-Hammond, 2004, p.23). However, reform to the current design is necessary to

not just close, but eliminate the academic gaps that exist across race lines. "If we are

going to create a 'new order of things' in our public schools, we must be willing to risk

the criticism that will surely come. In order to advance the new mission, we will have to

plan and implement change in the system" (Lezotte, 1997, p. 2). Fully transcending to cross-cultural schooling requires not only an awareness of other cultures, language, and customs, but also empathy to allow each student to bloom at his or her own pace because "the one-size-fits-all" design has proven to be ineffective for many students.

Parsing the Achievement Gap II outlines 16 factors that correlate to student achievement. Barton and Coley based the article on extensive research of these factors in order to determine if there are differences between ethnic populations and if the variances attribute to the achievement gaps. The objective of the first edition of *Parsing the Achievement Gap: Baseline for Tracking Progress* was to determine "…whether there are differences in these 16 'correlates of achievement' among different population groups that mirror the large and persistent gaps that are found in school achievement" (Barton and Coley, 2009, p. 3). With the 2009 publication, the authors hoped to look at current research to determine if the achievement gap has not changed, decreased, or increased. The article provides quantitative data as a basis for the authors' conclusion, which is that there is a direct relationship between school environmental and non-school environmental factors and achievement. The authors discuss research findings that suggest the 16 correlates of achievement have an adverse effect on academic success (Barton & Coley, 2009).

Most educators try very hard to meet the needs of students. Over the years, our system has created all sorts of labels that single people out from being "normal" (Blankstein, 2009, p. 108). According to Blankstein, there are several hurdles many learners have to overcome. "These include, but are not limited to, different learning styles, need for additional time and repetition, low socioeconomic status, a language

other than English spoken in the home, and parent/family situations that interfere with the learning process." (p. 98)

Along with the connectedness of ethnicity and social status with standardized data is the fact that there is a correlation between grade retention and the same subpopulations. "African American and Hispanic students are retained at much higher rates than White students – about 25 percent of African American and Hispanic ninth grade students have been retained compared to 10 percent of White students" (TEA, 1998). To the public, retention is seen as an intervention to reduce skill gaps in the classroom, which will reflect in state accountability (Xia & Glennie, 2005). The authors set up a case against retention, as do many researchers, in saying that retention is easy to implement and does not require additional cost versus funding new programs or services (Xia & Glennie, 2005). As a matter of fact, studies show that a promoted student would perform the same or better than a student that has been retained (Xia and Glennie, 2005). Essentially, repeating a school year in the same grade is a waste of time (Thomas, n.d.). Additional literature comes by the way of Alice Thomas who summarizes devastating effects of retention by writing, "Students who are held back tend to get into trouble, dislike school, and feel badly about themselves more often than children who go on to the next grade" (Thomas, n.d).

Bandura and his first doctoral student, Richard Walter, hypothesized that from adult modeling, behaviors are learned (Pajares, 2004). This was not in alignment with the other social theories of the time; therefore, his proposal was deemed radical. After extensive research to support the proposal, Bandura and his counterpart conducted an experiment which has brought him notoriety called the Bobo doll experiment. In a 1989

publication by Bandura, he stated, "observational learning is governed by four component subfunctions" (p. 23). Those four processes are: attention, retention, motor reproduction, and motivation. This was the beginning of encompassing cognition into the realm of learning resulting in Bandura renaming the category of psychological theory from social to specifically social learning.

At the core of this doctoral thesis is the idea of coupling differentiated learning with self-paced instruction as a solution to eliminating gaps among subpopulations. Bandura's social learning theory is supportive research for the proposal. Alberto Bandura concluded that learning occurs through the practice of modeling in four, sequential steps. First, students learn new skills by extracting relevant information from the modeled behavior (Bandura, 1989). Such an idea corresponds with Paulo Freire, who suggested that curriculum should come in the form of students' experiences (Kash and Conway, 2010). What could be more relevant to students than making learning extend from their personal encounters? To meet the needs of all students, practitioners should account for maintaining the interest and attentiveness of the learners, especially since Americans have the propensity to label students as ADHD. Providing various methods of learning a concept and affording the opportunity to complete the assignments in a reasonable time that is comfortable for each learner could increase the probability of maintaining students' interest in the curriculum. For several years, this practice has been an option for students who qualify for special education services. Hence, having an "individualized" plan for each student would be beneficial.

Secondly, Bandura declared that information about modeled behavior has to be transferred to a permanent location within the brain for later retrieval (Bandura 1989).

The process is commonly called retention. "Teachers can help students remember modeled behaviors by encouraging them to use various learning strategies" (Artino, 2007, p. 7). Learning is a process that takes place in steps. "Effective process ensures that students grapple with, apply, or otherwise make meaning of the information, ideas, and skills essential to a lesson" (Tomlinson, 2003, p. 1). Differentiated Instruction is an increasingly popular philosophy that supports the variety of learners in the classroom. According to Tomlinson, "…there should be provisions made to ensure that the student masters essential knowledge and has an active support system both to fill in gaps in knowledge…" (2003, p. 1).

Next, Bandura put forward the concept that motor reproduction is a requirement, too. A person that is physically handicapped, still, may comprehend the behavior but potentially not be able to perform the action (Bandura, 1989). The process of replicating the modeled behavior is particularly important because America's public education system is inclusive. Special education students are mainstreamed with regular learners. Therefore, if a student is functioning cognitively at an appropriate grade level, then he would be afforded an education with other learners who are at an equivalent or nearly the same level of intelligence.

In final thought, Bandura projected that motivation is the final process of successful modeling. Bandura researched three types of incentives that influenced behavior – direct, vicarious, and self-produced. Of the three, self-efficacy is most applicable to self-paced learning. In 1986, Bandura defined self-efficacy as a person's perception of their performance and cognitive capabilities. "A strong sense of efficacy enhances human accomplishment and personal well-being in many ways" (Bandura,

1994). In contrast, learners who have experienced repeated failure would have a negative

perspective of themselves and view the elements of schooling - that is answering

questions during class, receiving a test score, and the overall learning process - as

threatening.

Educational Practices

John Dewey is probably the most recognized scholar in education; however,

Paulo Freire is on the heels of his notirity (Gottesman, 2010). Paulo Freire is widely

known for his 1970's publication *The Pedagogy of the Oppressed*. In this reading, he

metaphorically compares the educational design to the banking industry. The teacher is

analogous to a depositor who holds the resources, and the students are viewed as empty

bank accounts waiting to be filled. This plays out in the classroom with the teacher being

the knower of all information; conversely, the students are only recipients of knowledge

(Freire, 1970). The intent of Freire's instructional philosophy is to foster dialogue

between the oppressed with those who are in unity with the oppressed in order to bring

about awareness and transformation with the goal of equality (Freire, 1970). "Paulo

Freire argued that learning should be conversational, accessible, and centered on the

experience of the participants" (Kash & Conway, 2010). Even though Paulo Freire did

not get a chance to experience the digital revolution, his theories hold true, still, for the

21st century. "Freire's teachings have found a fitting home in online education. The

notion of online learning implies a more equitable and democratic process of

disseminating knowledge" (Kash & Conway, 2010). His passion was that "…learning

should be conversational [Marzano], accessible [technology], and centered on the

experience of the participant [Differentiated Instruction]" (Kash & Conway, 2010). The

commonality between Freire and Bandura is that students should have the freedom to

progress through a course based on their readiness and preferred method of learning

instead of a homogenous instruction. Apprehension to change to what is known to be

right is fear of the unknown. As the oppressed should question their status in society and

be afforded the opportunity to learn, and believe that they can succeed, so to should be

the goals of all educational stakeholders. "Much of growing up has to do with increasing

the dominion one has over one's world" (Tomlinson, 2003). In short, David Russell

(2006) said,

> The important point is that this process is *student-driven*, not pre-determined by
>
> some textbook, school curriculum or governement mandate. Kumon effectively
>
> puts learning in the student's own hands. No one pushes a slow student to move
>
> ahead faster and no one holds a gifted student back. Each student advances when
>
> he or she is ready, no sooner, and no later. Students feel liberated because they
>
> can move at their own pace and are in control of their own success. (p.27)

Out of the many considerations to research in the field of school leadership, the

most crucial outcome is student achievement, which is synonymous to curriculum and

instruction. Starting in the early 1970's, researchers began to study the effects of

instruction on student achievement (Marzano, 2001). A great deal of meta-analyses chart

the effect size that specific teaching techniques have on student achievement. It's

venturous to say that Chan and Pool's findings blend with the philosophies of the leaders

in the district being studied. They articulated, "School principals participating in this

study ranked supervision and instructional support as their most important responsibility, followed by school improvement, staff development, curriculum planning and development, and personnel administration" (2002, p. 6). Darling-Hammond and Friedlaender concurred when stating that, "Schools need well-prepared principals who are strong instructional leaders" (2008). The following is a briefing of Marzano's strategies, RtI, and Differentiated Instruction, which provide a case for the inclusion of student-centered technology.

Although the population is comprised of people from various cultures who willingly sought out or were forced to "…the land of the free…", as stated in the Star Spangled Banner, the means by which knowledge is obtained has not transformed enough to accommodate for such diversity. Appleton stated, "The public schools played an important role by imposing an Anglocentric curriculum and not infrequently punishing immigrant children for using their mother tongue" (1983, p. 4). In addition, Grace Abbott does an excellent job in packaging the history into a few words. She wrote,

> It means that … native [White Anglo Saxon Protestant] Americans set themselves up as the true American type to which the immigrants must conform. This would … be reckless in its disregard of the talents and capacity of other people. (as cited in Fass, 1989, p. 31)

A double-edged sword was the phrase used to describe immigration because of its correlation to poverty and low academic achievement. Often times, teachers plan as if their students are homogenous in learning preferences and abilities. "Classroom teachers naturally orient, both in terms of effect and positive effect, towards students who they

consider 'teachable' and away from students [who] are … difficult-to-teach" (Gerber & Semmel, 1984, p. 141). The changes experienced in the 21st century will not allow schools to carry on in such a fashion. Though in the past, a few students may have been overlooked as needing additional support, new regulations such as Response to Intervention (RtI) and the College and Career Readiness Standards have been written into the education code.

In 1997, Lawrence Lezzotte reported that all children learn and are motivated to do so; yet, they do not absorb information at the same rate nor do they all come to school with the same skills (p. 5). Equally as important is that "meeting the educational needs of all students is becoming more difficult, because there has been a dramatic increase in the number of children and youth who are unable to learn adequately in the general education system" (Will, 1986, p.413). More than 10 percent of youth are eligible for special education services. And, 10 to 20 percent are not physically handicapped; rather, their learning is impeded resulting in being described as "slow learners". By logical inference, there are an estimated 20 to 30 percent of school-age children experiencing difficulty in public schools (Will, 1986). The realization is that public education is on a downward spiral (Ravitch, 2010), hence the startling statistics about alternatives to public education. The National Center of Education Research released a publication stating that homeschooling numbers have risen from 1.7 percent in 1999 to 2.2 percent in 2003. As expected, the pattern continues to show an increase unveiling that in 2007, the number rose to 2.9 percent - the equivalent of 1.5 million homeschooled students (Snyder, Dillow & Hoffman, 2008). Sixteen percent of the surveyed parents opted for home school because of their dissatisfaction with public school instruction (Pinciotta and Bielick,

2006). The data, employers, and global markets are beckoning stakeholders to embrace a new look to instruction. "Skills like creativity, problem-solving, communication and analytical thinking are necessary for all levels of success, from entry-level jobs to engineering and technical fields (The North American Council for Online Learning and the Partnership for 21st Century Skills, 2006). Likewise, employers are in agreement; "eighty-four percent of employers say K-12 schools are not doing a good job of preparing students for the workplace…" (The North American Council of Online Learning and the Partnership for 21st Century Skills, 2006). Immediately, Robert Marzano's high-yield strategies come to mind. Rooted in theory, Marzano relied upon Mid-continent Research for Education and Learning (McREL) to compile the findings using meta-analyses to determine which strategies show the greatest effect on achievement (Marzano, 2001). Although he cautions readers that while the instructional strategies can make a significant impact on student achievement in some cases, it can have adverse effects in others (Marzano, 2009). There are some unanswered questions, and until a conclusion is made, "…teachers should rely on their knowledge of their students, their subject matter, and their situations to identify the most appropriate instructional strategy" (Marzano, 2001). To name a few, identifying similarities and differences, cooperative learning, and generating and testing hypotheses are explored in his book. First, identifying similarities and differences takes form when students compare, classify tasks, or use metaphors (Brabec, Fisher, & Pitler, 2004). Such activities can be student-directed or teacher-directed, depending on the desired outcome. "Many problem-solving exercises, especially when they involve realistic situations, are complex" (Crawford & Witte, 1999); and, students may become frustrated. For this reason, cooperative grouping -

another strategy - could alleviate some tension (Crawford &Witte, 1999). Significant research poses that cooperative grouping is both effective and flexible (Lou, Abrami, Spence, Poulsen, Chambers & d'Apollonia, 1996). To illustrate, a study hypothesized that implementing peer-assisted learning strategies into urban classrooms or schools that service large numbers of minorities and low-socioeconomic students would reduce the achievement gap. So, the purpose of studying learning disabled, low-performing and average-achieving students from 22 elementary and middle schools was to show that teachers who used peer-assisted learning saw increased academic gains in their students compared to the control group that taught reading the usual way; that is, whole group instruction combined with limited, small group instruction. Student and teacher participants were extensively trained on how to conduct and facilitate the reading activities, such as paragraph summary, retell, and correcting errors. Time was divided equally among group members so that each person served as the tutor and tutee. As predicted, the result showed that the average-achiever experienced greater gains than did the learning-disabled and low-performer in the experimental group; nonetheless, all groups of learners who followed the peer-assisted learning model outperformed the three groups in the controlled sampling (Fuchs, Fuchs, Mathes, & Simmons, 1997). A final strategy noteworthy of being mentioned is generating and testing hypotheses. Such a strategy, "…requires students to apply their knowledge and thus deepens their understanding" (Brabec, Fisher, & Pitler, 2004). Students are able to form opinions, seek information to support or disprove their guess, and formulate an opinion. In the process, children develop their analytical and problem solving skills (Brabec, Fisher, & Pitler, 2004), which the lack of these practices seems to be a contributing factor to the

suppression of creativity (The North American Council for Online Learning and the Partnership for 21st Century Skills, 2006). Moreover, Brabec, Fisher, and Pitler expounded on how technology is a means to implement the nine high-yield strategies (2004). They wrote, "Technology should always be viewed as a tool, rather than an end in itself" (Brabec, Fisher, & Pitler, 2004). Specific technologies outlined were Word-processing, WebQuest, Inspiration, and Multimedia approaches like Windows Movie maker (Brabec, Fisher, & Pitler, 2004).

In recent years, educators have revamped instructional practices, since the mainstream ones seemingly do not work for all children (Tomlinson, 2003). However, there appears to be little to no consideration for the time span for which students have to reach mastery of the objectives. "Our schools were not built so educators would have a place to work each day, nor do they exist so that our government officials have locations to administer high-stakes standardized tests each spring" (Bruffum, Mattos, & Weber, 2010). Schools are in place to help students to develop into successful adults and citizens. Providing various methods of learning a concept and affording the opportunity to complete the assignments in a reasonable time that is comfortable for each learner, would increase the probability of maintaining students' interest in the curriculum. For several years, this practice has been afforded to special education in the form of an Individual Education Plan.   The reauthorization of the Individuals with Disabilities Education Improvement Act (IDEA, 2004) allows for models of Response to Intervention (RtI) in order to reduce the overrepresentation of specific groups in special education (Walker-dalhouse; Risko; Esworthy; Grasley; Kaisleer; Mcllvain; & Stephan, 2009). Buffum, Mattos, and Weber write:

RTI's underlying premise is that schools should not wait until students fall far

enough behind to qualify for special education to provide them with the help they

need. Instead, schools should provide targeted and systematic interventions to *all*

students as soon as they demonstrate the need. (p. 10)

RtI is the legal mandate while Differentiated Instruction is the pedagogy. If learning

could be put into a simple formula, then it would look like "Targeted Instruction + Time

= Learning" (Buffum, Mattos, Weber, 2010). Piloted last year in a southeastern Texas

district was Differentiated Instruction. According to Tomlinson, "…there should be

provisions made to ensure that the student masters essential knowledge and has an active

support system both to fill in gaps in knowledge…" (2003, p. 1). Darling-Hammond

reports that in 2002, nearly one-third of the students in public schools were children of

color (2002:1). She goes on to predict that in 2020 a majority of the students will be of a

minority group (Darling-Hammond, 2002:1). Therefore, to fully transcend to cross-

cultural schooling requires not only an awareness of other cultures, languages, and

customs, but also empathy to allow each student to bloom at his or her own pace. The

notion that learning occurs differently for each child must not bring about more labels in

addition to GT, ADD, LD, ADHD, or LEP; instead, an appreciation and responsiveness

to unique learning preferences should erupt through the form of self-paced instruction.

When a student does not meet standards for matriculation, there is not a plethora

of options from which parents may select. The school's repertoire contains, on average,

three choices: pass to the next grade level, parent-paid summer school, and retention.

The latter two are intended to be prescriptions for at-risk learners; yet, the diagnosis of

today's educational dilemma is that there is an end, commonly called the No Child Left

Behind legislation, with no defined means to get there. Hopefully, policy makers, central

office personnel, and teachers have questioned the rationale of moving students to the

next unit even though the learner did not obtain mastery. Proceeding to new information

while ignoring that a student scored a C, D, or F is contradictory to the message

embedded in the phrase, "no child left behind". This cyclical process equates to nothing

more than failure and a deceptive, educational methodology. The system gives the

appearance of equivocally saying that in America we educate only those students who

comprehend the current instructional topic; and, for those who don't get it, sorry but the

class must go on with or without.

Great Use of Technology: PLATO

Eric Walters reacquaints some and exposes others to new means of instruction

when he states that "[The] independent approach to learning has become increasingly

viable and accessible for all students through distance learning initiatives such as video

conferencing, Blackboard^{TM}, web casts, pod casts, blogs, Wikis^{TM}, Twitter^{TM}, and

privatized online learning programs such as NovaNet^{TM}, and Plato^{TM} " (Walters, 2010).

For the purposes of this paper, an in-depth look at PLATO is on the horizon. This section

will brief readers on the history of PLATO and its current use in public schools,

specifically, a southeast Texas school district. Literature shows that the inquiry about

computer-assisted instruction occurred as early as 1924. The initial interest came in the

field of psychology and not education (Troutner, 1991). Dr. S.L. Pressey's logic for the

infusion of educational software in K-12 instruction was that, "Rather than stultifying

education, such mechanical aids should free the teacher from unnecessary burdens and

leave her free for those inspirational and thought-stimulating activities which are presumably, the real function of the teacher" (Glasser, 190, p. 24). A generation later, B.F. Skinner probed into the concept of a teaching machine, though from the standpoint that students compose responses. Skinner proposed that students would be guided through a series of steps until the student fulfilled the desired outcome (Troutner, 1991). Not stopping there, PLATO (Programmed Logic for Automated Teaching Operations) arrived on the scene around the same time that IBM announced the development of the first computer system designed with education in mind (Troutner, 1991). PLATO got its start at the University of Illinois under the supervision of Dr. Donald Bitzer and debuted in the summer of 1960 (Baker, 1975). Since that time, the system has gone through several phases of refinement and derivatives of the system have been used in flight simulations, the development of PLATO IPOD, and hand-held games. In 1989, the Control Data Corporation (CDC) sold the training, education group, and the PLATO system to William Roach (encyclopedia.com). Roach believed that the sluggish sales were partly due to poor marketing. This belief was instrumental in his, "decision to invest heavily in the K-12 segment of the business - a move designed to shift the company away from adult literacy and remedial programs and back toward programs that could be integrated into standard curriculum" (referenceforbusiness.com). The Roach Organization continued to experience turbulent times but eventually saw a drastic turnaround. In 1997, the company partnered with a British telephone company to offer PLATO courseware via the Internet. Soon after, the company made an agreement with BellSouth to provide offerings to those who purchased the program in the operational

region of BellSouth. Then in early 2000, the name was changed to PLATO learning, a

title that conveyed the company's motivation (encyclopedia.com).

There are several advantages to using PLATO in public education (plato.com).

Table 1

Uses of PLATO

Common uses of PLATO	Benefits to using PLATO
Remediation	Self-pacing
Credit recovery	Immediate feedback
Intervention programs	Scaffolding
GT programs	Services a wide range of learning levels
Advanced placement	Array of curriculum choices
Home-schooling	Curriculum modifications
Virtual high schools	Rearranging capability by the teacher

Some teachers continue to use practices that are most comfortable for them, in spite of

some students not being successful. The result of such teaching is a population of

children who get tangled in a web comprised by retention, labels, dropping-out, and

discipline dilemmas; primarily because they did not master concepts before moving to the

next concept. The sea of adverse effects might be avoided if students have the chance to

master the objectives. "Mastery learning on PLATO could have its greatest impact on

those students who have had a long history of failure in the classroom" (Magidson, 1974,

p.11-12). John B. Carrol put forth a learning model called "Model of School Learning" (Magidson, 1974), and the objective was to allow students enough time to learn a concept, which is similar to the already stated simplified learning equation. Apart from the self-paced feature of PLATO, the program offers a scaffolding technique that allows students to work at the appropriate level for each individual person. Magdison said:

> In a democratic society, one major goal of education should be to promote the development of the individual; yet, education has traditionally impeded the growth of the individual by fostering a grading system which rewards only those students whose achievement places them in the upper third of their class. Under mastery learning, the goal is to bring merely all the students in the class into the top third category. This means that relatively slow learners must be given suitable learning activities…(p. 7)

Finally, each district has the freedom to use PLATO according to its needs. The southeast Texas district, at the center of this research, uses PLATO solely for credit recovery purposes. The lab capacity ranges from 12 – 18 students with one certified teacher at each high school campus. The target population is those students who are lacking credits due to having failed or lost credit in core, academic classes. This triage begins with seeking out 11th and 12th graders first, since this population of students is closest to fulfilling the requirements for graduation. 10th graders are the next candidates followed by over-aged ninth graders. The selection committee takes in account each participant's school attendance, behavior, and disciplinary referrals. It's a matter of perspective; but, these stipulations sift out more at-risk students. In order to have a successful program, students must be well-behaved and present at school in order to

progress through the lesson. With the program being self-paced, discipline infractions, AP office visits, out-of-placement consequences, and poor attendance would be stumbling blocks to the student's success. Aiming for success for *all,* the administration may open up the program to LEP and special education students with the prerequisite that those qualifying traits are not a hindrance to their success in the program. Finally, there is an interview process, and students are selected based on the above criteria.

Throughout the district, credits are reported through Pentamation. At high schools, credits are awarded by semester, with two semesters in a school year. To stage the credit reporting process for high schools transcripts, 0.5 credits are awarded per semester for each course when a student scores a passing grade of at least a 70. The maximum credits for each course is one per school year. For instance, if a student earned an 85 in Math for the first semester and a 70 for the second semester, then the student will have earned one credit for the entire school year for Math. Another example is if a student scored 70 in Math for the first semester and a 66 at the end of the second semester, then the student will have earned only 0.5 credits for passing the first semester. Conversely, in PLATO the restoring of credit is fluid. Credits are awarded upon the completion of a course, since students have the opportunity to progress through the program at their own pace. Although the program is self-paced, the district highly encourages students to fulfill at least 0.5 credits per semester per course. The PLATO courses offered by this district of study include several grade levels of Math, Science, Social Studies, and English.

Chapter Three: Methodology

Research Design

Over the years, the role of educational leaders has transformed from managerial to that of instructional leadership. "If students are to succeed through mastery of quality curriculum, then the principal must play an active role - at all levels, in all stages" (Glatthorn, 2000). Principals ranked curriculum and instruction as being priority. Johnson surveyed a group of principals and wrote, "Today, the principal's to-do-list is different and instructional leadership is right at the top of it" (Johnson, 2008). Being that schools were charged with providing youth with the knowledge and skills to graduate and enter college or the workforce, the fact that principals view curriculum as being highly important was comforting. When conceptionalizing the purpose of school, Glatthorn (2000) said it best when he stated that, "all that really matters is the learned curriculum" (p. 155). Annually, state assessments were conducted to ensure that students were learning the objectives that had been deemed important for the next level - post secondary school or the job market. Therefore, principals must have sharp skills in evaluating programs in order to determine their impact on student achievement. Did the philosophy, campus vision, instructional practices, or interventions "fit" with all student groups? Was the program financially feasible? Was the staff prepared for implementation? These were pivotal questions that must be answered when evaluating a program like the descriptive study of this document.

This study was a description of how a southeast Texas school district chose to implement PLATO into its schools. Since the literature suggested an urgency due global

competitiveness, a need to intervene to assist struggling learners, and the discouragement of lecture as a main instructional practice, it was desirable to examine statistical data revolving around the PLATO program as well as the perspectives of district administrators, who were instrumental in bringing the program to the district.

Research Questions

Research questions were designed to identify the three major components of the study. These integral parts included the purpose for bringing PLATO to the district versus a comparable program, determining if PLATO is meeting the objectives – i.e. student performance, and the perceived effectiveness of the PLATO program. The following research questions guided this study:

1. When and why did the district administrators opt to implement PLATO into the curriculum as opposed to similar programs?

2. How many students recovered credit while enrolled in the PLATO course during the 2010-2011 school year?

Research Methodology

The study utilized the overlapping of qualitative and quantitative methodologies. Both use a number of designs to translate extrapolated data - i.e. descriptive and other phenomena - to address specific outcomes (Gall, Borg, & Gall, 1996). This study was a compilation of the perceptions of two district administrators and archival information in attempt to infer meaning by treating such variables with descriptive and statistical analyses.

Research Design

 Descriptive statistics and standardized open-ended interview were utilized in this

study.   The open-ended interviews were conducted with two central office

administrators, who were instrumental in the adoption of the PLATO program. To begin,

the rationale behind using descriptive, standardized open-ended interview was to take a

look at these decision-makers' philosophies, determine the needs of the district at the

time of acquiring the PLATO program, and use the results as a follow-up assessment to

determine if PLATO is, indeed, meeting the needs. The questions (Appendix A) were

derived in correlation with the subtopics in the literature review; that was, multicultural

education, educational trends (global competition), and instructional practices. According

to Gall, Borg, and Gall, "The standardized open-ended interview involves a

predetermined sequence and wording of the same set of questions to be asked of each

respondent in order to minimize the possibility of bias" (1996, p. 310). Using

standardized open-ended questions was best in that both people were interviewed at

different times and using the same questions, which helped to foster consistency in the

research. Conveying these administrators' responses helped to formulate a complete

picture – beginning, middle, future thoughts - of the program. As much as possible, the

combining the statistical data aided in putting forth detailed research.

 Simultaneously, archival data were used to report student information such as,

age, grade, gender, race/ethnicity, and economic status; additionally, archival data were

used to analyze PLATO students' performances and a complete profile of each student.

Furthermore, the credit recovery rate for 2010-2011 school year was analyzed in

conjunction with the already mentioned subgroups. Frequency tables, cross tabulations,

and graphs were used in an effort to decipher the overall success rate of the program as

well as look for trends among the subpopulations. One limitation of this study was the

time constraints in that PLATO teachers, PLATO students, and campus administrators

were not surveyed.

Population and Sampling

Two district administrators were interviewed using the attached 10 question

(Appendix A), standardized, open-ended interview questions. The purpose for selecting

these two individuals was because they were instrumental in the decision process of

PLATO as well as the implementation of the PLATO program throughout the district.

Since the acquisition of PLATO, one of the two individuals had retired while the other

was employed with the district still.   My inquiry was to gather details as to the needs of

the district at the time of shopping for an alternative program, what competitive programs

were of interest and why, and why they were sold on PLATO prior to implementation.

The questionnaire began with asking about each person's educational philosophy to

determine its compatibility with multicultural education and Differentiated Instruction.

Since the program was fully operational on all high school campuses, it was of interest to

ask if the PLATO program was meeting the needs of the district.

During the 2010-2011 school year, the southeast Texas school district had an

overall student population of approximately 106,000. Within the district were nine high

schools, all with the PLATO program on campus. For 2010-11 school year, 1,173

students were or had been enrolled in the PLATO program. Relying upon the distribution of credits recovered among the campuses, the schools represented a diversity of student populations, with a spectrum ranging from high poverty to low.

Procedures

Permission to conduct the study (Appendix B) was granted by the University of Houston as "full review", contingent upon review and approval from the Institutional Review Board (IRB) at the University of Houston. The research took place in two distinct parts using mixed methods of qualitative and quantitative methodologies. First, a request to conduct the study was sent by email to the district for consideration. After consent was secured from the associate superintendent, a consent form was sent to the subjects. A 45 minute (maximum) interview was conducted with each of the two subjects. One of the administrators worked for the district still, while the other had retired. The questions were in an open-ended standardized format to foster consistency in the themes that were discussed and elaboration opportunities were afforded if needed. This information was reported to provide a realistic scenario showing the needs of the district at the time of acquiring the program. The questions were designed in correspondence to educational trends, such as over-aged students and a number of students at-risk for not graduating. Another objective of the interview was to determine if the program was a great fit for the district, and if so why. If the subjects believed the program could withstand tweaking, then they were asked to elaborate. A final overarching theme solicited information on the consideration of offering the PLATO program for original credit and the reasons for why or why not. Finally, archival data

were analyzed to determine the program's success rate and whether there was a correlation between specific genders, ethnicities and socioeconomic groups.

Data Collection and Recording

Data collection for this study occurred during March 23rd and April 10th of 2011. The data collected from district administrators were in the form of a telephone interview. The consent was faxed to the in-district administrator while the form was mailed to the retired employee. During this time, the district supplied the archival data and provided additional consent forms for the subjects. The participation in this study was voluntary and confidentiality was provided to all respondents.

Summary of Methodology

The intent of this study was to determine if PLATO was a good fit for certain subgroups, all groups, and 21st century learners as a whole. The goal was to see if PLATO was a type of instruction that could be easily incorporated into general education as an option when students selected their preferred learning styles. It seemed a bit more plausible to be proactive in capturing students early on by helping them master objectives versus continuing the lesson in spite of the lack of mastery. There were substantial data available recommending that students were at a high risk for dropping out of school if they were retained. The PLATO program was known for its self-paced instruction, scaffold activities, and mastery learning. Not learning objectives created gaps that became evident in standardized assessments, graduation rates, labor markets, and

eventually the economic divide. Democracy entitled everyone to be educated and "not

left behind".

Chapter Four: Results of the Study

The purpose of the study was to include information in a descriptive study of PLATO (Programmed Logic for Automated Teaching Operations) as a viable option in regular education classrooms using qualitative and quantitative data. Qualitative results were derived from one open-ended, standardized interview with two district administrators who were instrumental in acquiring the PLATO program for the district. Along with that, archival data were analyzed using descriptive statistics in the form of frequency tables and cross tabulations. The dependent variable was the number of credits recovered, either 0.5 or zero; and, the independent variables were ethnicity, gender, and socioeconomics.

Differentiated Instruction (DI) was an initiative born out of the reauthorization of the Individuals with Disabilities Education Improvement Act. Still, standardized tests results revealed that gaps exist between genders, ethnicities, and socioeconomic groups. The PLATO learning system could have represented one of several instructional models offered in a DI classroom. In a southeast Texas district, PLATO had been used for credit recovery purposes for students who had been identified with risk factors. The proposal was that in order to respond in a more proactive fashion, computer-based instruction may have been the key to closing the gap among subpopulations. Archival data - i.e. gender, ethnicity, age, socioeconomic status - of enrollees were analyzed to determine the program's success rate in its current operations. As educators were seeking alternative instructional methods to ensure success for *all* learners, considering the self-paced, technology based features of PLATO made it a worthy option.

Data Analysis

The research took place in two distinct parts using mixed methods of qualitative and quantitative methodologies. A set of predetermined questions was used to guide the interview process. One telephone interview was conducted with each of the two subjects in April. The interviews lasted no longer than 45 minutes where each subject provided their account for acquiring PLATO and the program's success rate as well their views on today's educational trends. Notes were scripted during the interview and follow-up questions were asked for a more in-depth understanding. The perceptions of subjects were reported under three major themes: educational philosophy, the district's needs at the time of PLATO's acquisition, and assessment of PLATO and the program's future in the district.

The statistical procedures applied for this study were descriptive and inferential methods. The descriptive statistics included frequency and cross tabulation tables. Bar graphs reflected the numbers of students, by ethnicity, who received free lunch, reduced lunch, or neither. The number of credits recovered, 0.5 or zero, was the sole dependent variable. The independent variables were comprised of the students' demographics, such as age, gender, ethnicity and social status.

Qualitative Data

Educational Philosophy

The subjects' responses to questions one through four will be reported in this section.

Participant A

Participant A was the Assistant Superintendent of Secondary Curriculum and Instruction where she oversaw all programming for students in grades six through twelve. Additionally, she supervised content coordinators, updated internal and external district publications, supervised textbook adoptions, partook in curriculum projects, implemented staff development for secondary teachers, and collaborated with principals to ensure they have the appropriate programs on the campus to fit the students' needs. Although she did not assist on each project directly, she supervised those who did. Participant A's philosophy of education was congruent with public school advocates. "All children can learn". The responsibility fell upon district administrators, principals, and teachers to determine the placement of each student on the academic spectrum and track their progress along the continuum towards college and/or career readiness. The role of public education was to maximize the potential of each student.

> The responsibility of the system - teachers and myself included - is to adjust their behavior to meet the needs of students. Don't create programs and fit students into them; however, make an assessment to determine where the student is located on the spectrum and design or customize a program to meet their needs.

These were the steps to maximize each student's potential. "Being a principal is the hardest job of any educator in the system outside of the classroom teacher." Principals had to possess the ability to make sure that every teacher is able to adjust, respond, and adapt to students' needs. "They have to transform those teachers who see that it's the students' responsibility to conform to us." Participant A ranked the principal's priorities as being a) monitor the teaching and learning b) manage a safe environment for students

to learn c) respond to students needs by working with the staff to implement needed adjustments. "We have a strong, diverse curriculum. We want to be consistent from school to school regardless of the attendance zone. Each school will provide the same access regardless of socioeconomics." The consistency ensured that tax payers get quality curriculum no matter where they reside. Some instructional strategies favored by the district were Differentiated Instruction (DI), learning with technology, cooperative learning, and relationships, where educators would know their learners and respond to each learning style over the course of a unit study.

Participant B

Participant B was retired from the district; however, at the time of employment, she was the Director of Middle School Curriculum and Instruction. Her responsibilities included staff development for middle school teachers, campus support, managing special projects (such as PLATO, Student Success Initiative (SSI), and Dyslexia), analyzing curriculum and instruction results for each middle school campus, visiting campuses to support needs, and providing feedback to campuses on progress made. Her philosophy entailed that educators should, "determine the kinds of kids at the campus and meet their needs." After identifying the needs of the learners, educators determined what they were going to teach and how. Knowing the different learning styles was crucial to the overall learning process. Along with Participant A, Participant B ranked student achievement as being a priority followed by the principal's creditability. She expounded on question two by saying that the principal had to be, "a good communicator, listener and pay close attention. Principals have to be 'with it' by knowing their population and where they are

headed with goals". Good leaders were able to translate the goals and vision to the

teachers, students and parents so that they can follow. Participant B saw the core beliefs

of the district as being able to hone in on the meaning of each TEKS (Texas Essential

Knowledge Skill). For example, the teacher and students might have enjoyed the worm

lab; but, if the activity was not aligned with a TEKS, then that lab was no longer a part of

the curriculum. "The creativity part -'the how'- is left up to the teacher to allow the

addition of the teacher's ideas." The curriculum department intervened only when the

data reflected low student achievement; therefore, teachers continued to explore the art of

teaching as long as students' needs were meet and learning occurred. Participant B

echoed participant A when she stated that students got the same well-thought out

curriculum no matter the campus. Differiented Instruction was on the uprising when she

retired from the district, and she felt that DI had much promise. Some established

instructional programs and methods in the district during her departure included READ

180, Quantum Learning techniques, and cooperative learning. Those programs continued

to show astounding results.

District's Needs

The following narrative is reflective of the responses to questions five through

seven.

Participant A

The reason the district sought out for an alternative program, like PLATO was

because, "We saw a strange phenomenon". The student population became more and

more diverse, and there was an outcry from high school principals for the need for

students to reclaim credits. Since there was an increase in low-socioeconomic students,

programs such as summer school was not meeting the needs of a specific population.

Summer school was self-supported tuition based, and "We were not getting all of these

students. Therefore, we had to come up with a credit recovery program within the

normal course of the school day" that was free. A typical scenario was a student taking a

course for original credit and not earning a passing grade. Therefore, the student would

take the course a second time earning an even lower grade than the first time. On the

third time, the student made a grade lower than the first two times the student attempted

the course. Over time, the student had not gained credit for a course and developed a

sense of learned helplessness. So, district leaders begun to investigate on-line programs

and the programs that surrounding districts were using. One neighboring district was

using PLATO and had success. An inviting characteristic of PLATO was that the courses

were designed in modules, i.e. units at time. Students started with a pre-test having a

passing standard of 80. If the student was successful on the pre-test, then they would

progress to the next level. If not, then the student would review, study online tutorial

portion, and take quizzes along the way. At the end of the segment, the student would be

assessed using a post-test. Being that the program was self-paced was a pretty good sign,

and students did not have to wave through work they already knew. More benefits to the

program was that students could accelerate through the program, and over-aged students

did not have to attend classes with younger peers, which was a sense of embarrassment or

frustration. District leaders considered other compatible programs before making a final

decision on PLATO. PLATO had been in effect for three years and was piloted for one

semester before implementation. Another perk to the PLATO program was that the curriculum was aligned with the state objectives (TEKS) and had the appropriate rigor. The process was one of shared decision-making because content area specialists were called upon to evaluate the program for their content area, and they "thought highly of it". The company allowed district coordinators the opportunity to tweak, reorganize, and edit modules. The PLATO program was very responsive to the training needs in the form of staff development trainings for PLATO teachers.

Participant B

To her recollection, the first voicing of campus needs came during a discussion at a principal/Director of Instruction meeting. There was request for help to address the influx of over-aged students; especially on the high school campuses. Some of the students had, "checked out emotionally and were acting out" by not paying attention. There were a number of reasons for the onset of over-age students, with one being that more and more students were moving into the area from other districts and were already over-age. After identifying the need, district administrators formed a small alliance of people to brainstorm some solutions. The Information Services Department was sought out to assist the committee in identifying these students and the number of years they were over age. The committee looked for successful programs that area districts were using and online learning software. In doing so, one principal spoke up about PLATO because of prior experience he had while serving on an at-risk campus. Throughout the process, the committee joined with Technology Services to gather their expert knowledge on various online options due to having attended conferences to learn about available

programs. The committee concluded the search by selecting PLATO because the Math

and English modules were in great shape to meet the district's needs while the Social

Studies and Science Curriculum Coordinators tweaked their respective subjects. The

implementation started out small as a pilot program on two high school and middle

school campuses immediately. The rationale for starting at the high school level was

because credit recovery was a priority. A sampling of students was bused over to the

high school campus, with an organizational framework much like the ESL model.

Assessment of PLATO

The following narrative is reflective of the responses to questions eight through

ten.

Participant A

Participant A viewed PLATO as being highly successful because many credits

had been recovered. This research just reported 2010-2011 results, but she has been

following the program, since its existence with the district. The PLATO program had not

diminished the TAKS results (Texas Assessment of Knowledge and Skills), Texas's state

accountability system; still, the students did well and passed the TAKS test while

accelerating through the course to complete the requirements of high school. Yearly,

district leaders assessed each program, including PLATO, to ensure students' needs were

met. Since the state was transferring to the STAAR system with end-of-course exams, the

district leaders were going to determine if PLATO was aligned with the new

accountability system. "I am not married to a program". Participant A had no

commitment to any program. "It's all about doing what's best for our kids". In the future, she could foresee see extending PLATO into the general education setting. In fact, she reported that the district piloted the idea, one summer, with a Government/Economics class as well as a Health course. The district used this one occurrence as a test case while toiling with the idea of PLATO in all classrooms. "The results were really interesting because it depends on the personality of the learner. Some students preferred a relationship with a teacher or another human being". Another conclusion she made from this experimental group was that students older than 16 years old performed better. 14 and 15 year old students required more guidance. "Older students earned more credits because they were closer to the end goal"- graduation.

Participant B

Over one year had lapsed, since her employment; resulting in an inability to assess the program. She offered, "If the program is showing great success, then pilot it on a small scale first". Those districts which opted to extend PLATO into the regular education classroom would be trailblazers, but be cognizant of the costs associated with full implementation.

Table 2

Frequency of Ages

Age	Frequency	Percent	Valid Percent
< 14	7	.6	.6
16	128	10.9	10.9
17	379	32.3	32.3
18	451	38.4	38.4
19	158	13.5	13.5
> 20	50	4.3	4.3
Total	1173	100	100

Table 2 described the age of the population sample. The participants' ages in this study

ranged from less than 14 years of age to over 20 years. In the 2010- 2011 school year,

students who were 18 years old were largely represented at 38.4 percent while students

who were at both ends of the spectrum made up the least. Since the district used PLATO

for credit recover purposes, solely, there was an expectation of the data reflecting large

number of students who were older. Recall, that the district selected over-age seniors or

seniors who were in need of course for graduation, as a priority. Therefore it was no

surprise that the out of 1,173 PLATO students, the frequency of 17 and 18 was 830 and

over 70 percent. The frequency of 19 years old surpassed the number of students who were 16 years old. Less than 10 percent of students were 14 years old or less and 20 years of age and older. Participant A stated that principals were seeing an influx in overage students, and Table 2 was congruent with the trend. Additionally, Participant B stated that over-age students possessed the tendency to be embarrassed when in a class with mostly underclassmen. Experiencing PLATO provided students the opportunity to maintain a relatively normal self-efficacy. In a study by Daisy Reed, she noted that over-age students had moderately negative impacts on discipline, test scores, school climate and summer school enrollment rates (Reed,1998).

Table 3

Frequency of Grade Levels

Grade	Frequency	Percent	Valid Percent	Cumulative Percent
9	108	9.2	9.2	9.2
10	245	20.9	20.9	30.1
11	376	32.1	32.1	62.1
12	444	37.9	37.9	100.0
Total	1173	100.0	100.0	

The high school campuses serviced four grade levels: ninth, tenth, eleventh, and twelfth. The archival data unveiled that there were more 12th graders accessing PLATO than any other grade level followed by 11th graders. Combining the frequency of 11th and 12 graders made up 70 percent of the total population of students. A similar combination of 11th and 12 graders was seen in Table 2. This was an expected phenomenon, since seniors

were sought out first due to the fast approaching graduation. Having seniors enrolled in

PLATO was an effort to have them capture credits for those courses in which they were

not successful at some point during their educational experience. To grasp the needs of

the students, data showing the average number of over-age years would have been

helpful. Though less than 10 percent of ninth graders have been enrolled in PLATO

during the school year, nearly all those that took part in the program were over-age.

Gehring's research supported the need to intervene with ninth grade students when he

stated, "The 9th grade year, in particular, is where most students who drop out begin their

slide" (2004).

Table 4

Frequency of Genders

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Female	512	43.6	43.6	43.6
Male	661	56.4	56.4	100.0
	1173	100.0	100.0	

The frequency percent of male and female students had a gap of nearly 10 percent.

Solely, from this data, the assumption that male students were retained at higher numbers

or failed academic courses at a higher rate than females cannot be made. However,

researchers have reported that females outperformed males in combined literacy

(Fleischman, Hopstock, Pekzar, & Shelley, 2010) while male students in grades four,

eight, and twelve scored higher than females in science (National Center for Education

Statistics, 2011). "Girls have higher high school grade-point averages, are more widely

represented as school valedictorians, and attend and graduate from college in greater

numbers than boys" (Sadowski, 2010). The disparities in reading literary between boys

and girls was not limited to the United States, but also found to be the case

internationally. The margin between the male and female participants could have

resembled the student body in any given classroom setting. Recall, the selection process

in which students had to endure, and there was no evidence that gender was a

consideration. To much surprise, the difference between the number of male and female

candidates was smaller. With research surmounting on the achievement gap between

boys and girls, there was anticipation that there would have been a significant number of

male students enrolled.

Table 5

Frequency of Ethnicities

Ethnicity	Frequency	Valid Percent
Invalid	3	.3
AfrAm	286	24.4
Hisp	581	49.5
Other	53	7.3
White	253	21.6
Total	1173	100.0

Table 5 reported that 581 Hispanics took PLATO, which accounted for nearly half of the

total population, followed by African American and White, respectively. There were

three students in which student demographic were not reported, resulting in an invalid

subgroup. The "other" category was comprised of a multitude of ethnicities - American

Indian, Asian, Hawaiian/Pacific Islander and Multi-ethnic. The Invalid group was

formed because of incomplete data in which the demographic were not captured for these

students. 286 African Americans took a PLATO course, and they had the next highest

student population at 24.4 percent. The White subgroup had 33 fewer students than the

African American group. Nearly 50 students fell into the other category with a 7.3

percent of the total population. From this data set, the conclusion can be made that school

leaders should not focus on two or three ethnicities because there are children in all

ethnic backgrounds who have experienced failure. Targeting specific populations rather

than supporting all children increased the chances of bypassing a child in a different

ethnic group who would benefit from additional support. As the literature reported, the

2001 No Child Left Behind Act has some unintended consequences due to the standards

for subgroups (Darling-Hammond, 2004).

Table 6

Frequency of Socioeconomics

EconDis	Frequency	Percent	Valid Percent
Free/Reduced Lunch	674	57.1	57.1
No	503	42.9	42.9
Total	1173	100.0	100.0

"In the United States, the official poverty thresholds are set by the Office of Management

and Budget (OMB)" (Jensen, 2009, p.5). The demographics of the district had changed

over the last five years, with an uprising in numbers of students receiving free and

reduced lunch. The district's estimation for the school year was that there were 45

percent of students who were low-socioeconomics. In Texas, there was a correlation to

the influx of poverty to the increasing numbers of students who were struggling

academically in school (Mellon, 2010). To repeat, the high schools range from servicing

a majority of low socioeconomic to campuses populated with large numbers of high

socioeconomic. This was the rationale from the district having a consistent, district

curriculum to achievement quality curriculum across the district. Potentially, since the

population sample was relatively low, the gap between free/reduced lunch was not as

readily apparent had the data reflected the archival data from the three and half years

since implementation. Recognizing that varying types of poverty exists (Jensen, 2009),

there was no conclusive information of the type of poverty for the students in the district

of study. The PLATO program was an intervention to assist those students who needed

to recover credit due to previous failure. While students from all social groups took part

in the PLATO program, there were substantial numbers of students who were successful

in school using this means of instruction. The intent was not to make a case for PLATO

to be the absolute instructional method in regular education classrooms nor was it to rule

out the PLATO program. What's most important was that PLATO worked for the

majority of the student who were enrolled.
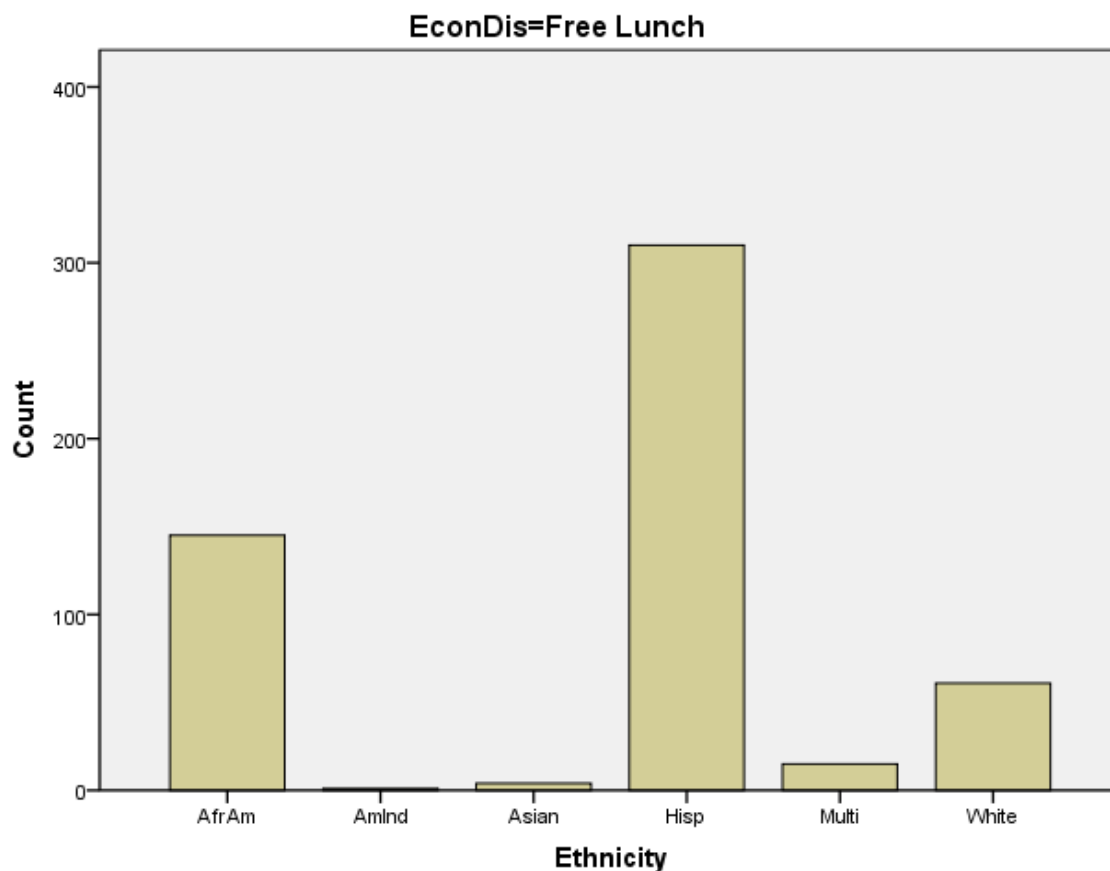
Figure 1. Economically disadvantaged and free lunch by ethnicity.

The graphs were another tool to show descriptive data in reference to social status.

Starting with students who received free lunch in Figure 1, out of 581 Hispanic students,

approximately 300 were reported in this category. Out of 286 African American

students, nearly 150 students received free lunch. Less than 100 White students received

free lunch compared to the total of 253. It was important to note that the numbers may

have been a little skewed due to the fact that many students did not apply for free nor

reduced lunch even though they could have qualified. Additionally, Multicultural, Asian,

and American Indian PLATO students had low numbers of students receiving free lunch

service.
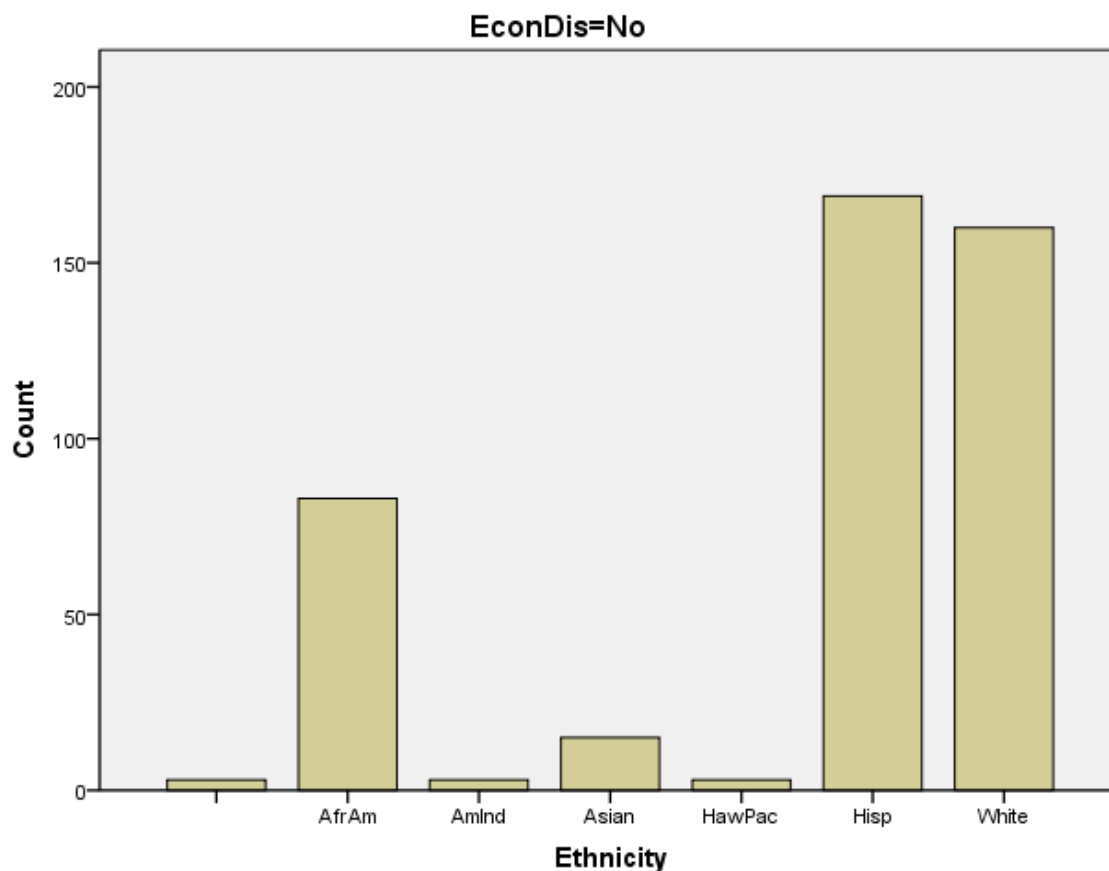
Figure 2. Non-economically disadvantaged by ethnicity.

According to the Figure 2, Hispanic students appeared to lead in every social group.

Whites were nearly even with Hispanics for those who did not receive free or reduced

lunch. Topping off at third were the African American students. Asians,

Hawaiian/Pacific Islanders, and American Indians were represented; however, there were

relative few numbers of students in these subgroups enrolled in the program. Out of the

three tables, the number of students who received free lunch, indicated on the y axis, was

greatest number of them all.
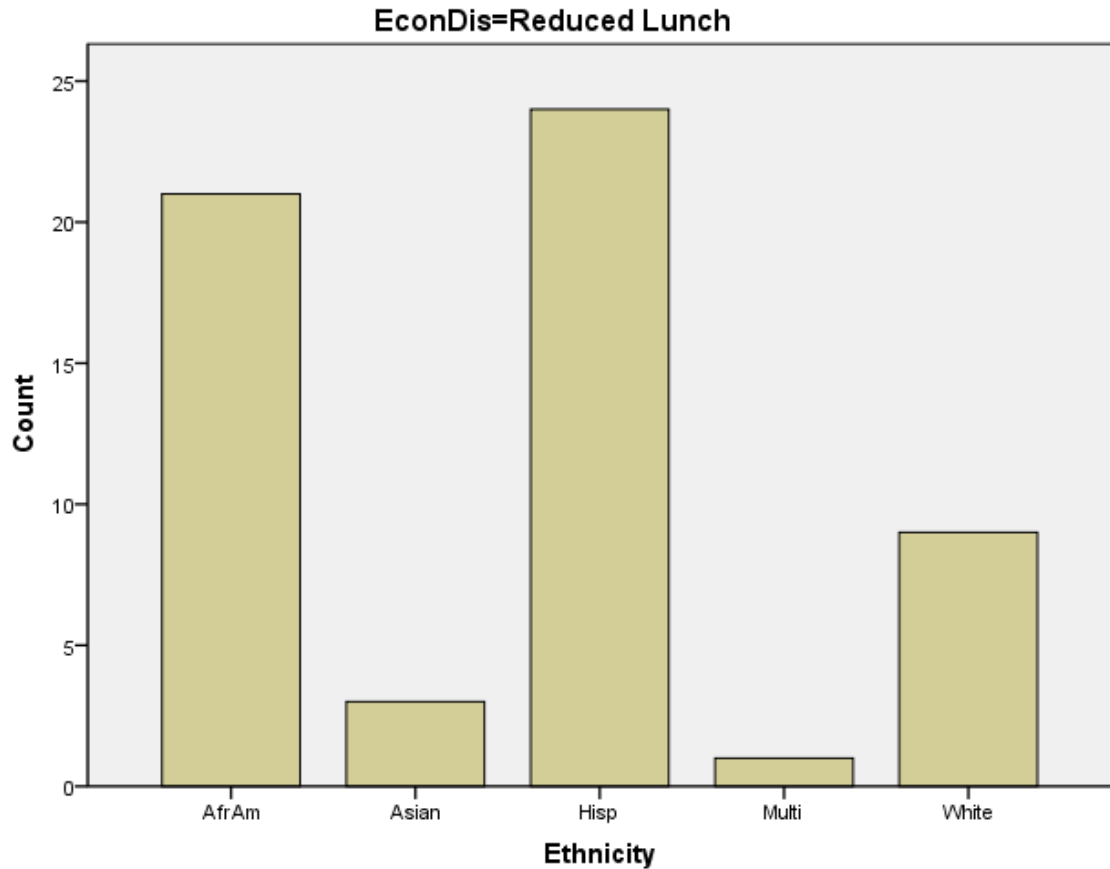
Figure 3. Reduced lunch by ethnicity.

Not all subgroups were represented in the reduced lunch category; again, with Hispanics

leading with nearly 25 students. African Americans were approximately 20, Whites

showed almost 10, and Asian, and Multicultural student subgroups were reported as

having less than five students from the overall population who were had reduced lunch.

Table 7
*Ethnicity * Credit Cross Tabulation*

			credit	
			.50	Total
Ethnicity	Invalid	Count	3	3
		% of Total	.3%	.3%
	AfrAm	Count	249	249
		% of Total	24.2%	24.2%
	Hisp	Count	503	503
		% of Total	48.8%	48.8%
	Other	Count	45	45
		% of Total	4.4%	4.4%
	White	Count	230	230
		% of Total	22.3%	22.3%
Total		Count	1030	1030
		% of Total	100.0%	100.0%

There were three large ethnicities represented in the data, invalid data, which was

comprised of students who did not indicate their ethnicity, and an "other" subgroup,

which included American Indian, Asian, and Hawaiian/Pacific Islander students. Data

Table 7 showed the number of 0.5 credits earned by each ethnic group. To be expected,

Hispanics recovered the most credits at nearly 50 percent. This seemed reasonable,

especially since Hispanics were the largest represented of all ethnicities. African

Americans had a recovery rate of 24.2 percent of the total of 1,030 half credits. Whites

were awarded 230 semester credits, and the other category successfully earned 45 credits.

Table 8

EconDis* Credit Cross Tabulation

| | | | credit | |
			.50	Total
EconDis	Free/Reduced Lunch	Count	594	594
		% of Total	57.6%	57.6%
	No	Count	436	436
		% of Total	42.3%	42.3%
Total		Count	1030	1030
% of Total			100%	100%

Fifty-seven point six percent of the 1,173 students enrolled in PLATO for the 2010-2011 school year received free or reduced lunch, over half the total PLATO student population. 42.3 percent of students reported that they were not in need of assistance with the cost of lunch recovered credit. Previously reported was that this district had seen an exponential increased in students receiving free or reduced lunch, and the statistics correspond with trends seen all over the state of Texas.

Table 9

*Gender * credit Cross tabulation*

			credit	
			.50	Total
Gender	F	Count	452	452
		% of Total	43.9%	43.9%
	M	Count	578	578
		% of Total	56.1%	56.1%
Total		Count	1030	1030
		% of Total	100.0%	100.0%

There were 512 females and 661 males enrolled in the PLATO program for the 2010-2011 school year. Table 9 showed that 452 females and 578 male students received credits, and the credit recovery rate appeared to be nearly the same among male and female students.

Table 10

*Ethnicity * credit * EconDis cross tabulation*

EconDis				credit	
				.50	Total
Free/Reduced Lunch	Ethnicity	AfrAm	Count	166	1
			% of Total	27.1%	27.1%
		AmInd	Count	1	1
			% of Total	.2%	.2%
		Asian	Count	4	4
			% of Total	.7%	.7%
		Hisp	Count	310	310
			% of Total	57.8%	57.8%
		Multi	Count	15	15
			% of Total	2.8%	2.8%
		White	Count	61	61
			% of Total	11.4%	11.4%
	Total		Count	536	536
			% of Total	100.0%	100.0%
No	Ethnicity		Count	3	3
			% of Total	.7%	.7%
		AfrAm	Count	83	83
			% of Total	19.0%	19.0%
		AmInd	Count	3	3
			% of Total	.7%	.7%
		Asian	Count	15	15
			% of Total	3.4%	3.4%
		HawPac	Count	3	3
			% of Total	.7%	.7%
		Hisp	Count	169	169
			% of Total	38.8%	38.8%
		White	Count	160	160
			% of Total	36.7%	36.7%
	Total		Count	436	436
			% of Total	100.0%	100.0%
Reduced Lunch	Ethnicity	AfrAm	Count	21	21
			% of Total	36.2%	36.2%
		Asian	Count	3	3
			% of Total	5.2%	5.2%
		Hisp	Count	24	24
			% of Total	41.4%	41.4%
		Multi	Count	1	1
			% of Total	1.7%	1.7%
		White	Count	9	9
			% of Total	15.5%	15.5%
	Total		Count	58	58
			% of Total	100.0%	100.0%

All groups reported gains by recovering credit for courses once previously failed. By ethnicity, Hispanics made up the largest number enrollees while other subgroups were represented too. By analyzing Table 10, readers were able to deduce that PLATO was the proper instructional method for over 1,000 students, who were awarded credit. If these students were not afforded the opportunity to enroll in PLATO, then they may have been destined to become another statistic for the perils associated with retention. For the purposes of reporting the findings, free and reduced lunch data was combined. For the African American students, 228 free or reduced lunch students were awarded credit along with 83 students in the "no" category. There were a total number of 286 students enrolled in the program; therefore 80 percent of African American students earned 0.5 credits. Next, there were 334 free and reduced students combined with 169 non-free and reduced students, totaling 503 students who were reinstated credit through the PLATO program. The recovery rate for Hispanics was 87 percent. A third group of students represented by ethnicity was Whites. There were 70 free or reduced White students along with 160 regular lunch, White students. 91 percent of White students who were enrolled in the PLATO program recovered credit. Last was the "other" category having been made up of various ethnicities with less than 10 percent of the total population. 36 percent of students classified in the "other" group were awarded credit.

Table 11

Comparison of Enrollees by Ethnicity to Number of Credits Awarded

Ethnicity	Frequency	Number of 0.5 credits recovered	No credits recovered	Percent
AfriAmerican	286	249	37	12.9%
Hispanic	581	503	78	13.4%
White	253	230	23	9%
Other	50	45	5	10%
Invalid	3	3	0	100
Total	1173	1030	143	12.1%

Table 11 compared the number of enrollees by ethnicity to the number of 0.5 credits awarded. Out of 286 African American students, they regained 249 half credits. Since each student needed to have earned at least one half credit, there was a fair assumption that 12.9% of African American students were not awarded credit. 78 Hispanic students did not receive credit, which equated to 13.4%; and, 9% of White students did not earn credit.

Table 12

Frequency of Credits not Recovered by Socioeconomics

EconDis	Frequency	Number of 0.5 credits recovered	No credits recovered	Percent
Free/Reduced Lunch	670	594	76	11.3%
No Reduced Lunch	503	436	67	13.3%
Total	1173	1030	143	24

There was an expectation that more students would be represented in the free or reduced

lunch category because of the increase seen within the district in recent years. High

failure, in this case, students who were repeating a course for the second time or more,

was closely associated with socioeconomics. There was a 14% spread between the

number of students who received assistance with lunch and those who did not. The

percentage of students who did not recover credit was a two point difference. From data

Table 12, the conclusion could be drawn that there was no significant difference in the

recovery rate between students who received federal assistance and those who did not.

For the most part, a majority of students in both categories successfully earned credit by

using the PLATO learning system.

Table 13

Frequency of Credits not Recovered by Gender

Gender	Frequency	Number of 0.5 credits recovered	No Credits recovered	Percent
Female	512	452	60	11.7%
Male	661	578	83	12.5%
Total	1173	1030	143	24.2%

Unfolded in Table 13 were data encompassing the effect that gender had on the recovery

rate in PLATO for the 2010-2011 school year. Many publications have been released

surrounding the lagging of male students' academic performance compared to that of

females (Reichert, 2006), resulting in a number of proposals speculating the causes.

However, one fact remained was that there was an ever-widening gap between girls and

boys' achievement (Kohn, 2003). In this study, the gap was less than predicted; and,

there was a minimum difference between the recovery rates. Nearly, 150 more boys

signed up for PLATO than girls and the percent of students who did not complete the

course was almost the same. The reasons why students did not complete the course were

unknown; but, as a reminder, the data were captured during the middle of the second

semester. Therefore, students may have been working on track to complete the course by

the end of the school year.

Table 14

Frequency of Students Enrolled by PLATO Course

	Frequency	Percent
ALGEBRA I	128	10.9
ALGEBRA II	15	1.3
BIOLOGY I	66	5.6
CHEMISTRY I	29	2.5
ECONOMICS	9	0.8
ENG IV	42	3.6
ENGLISH I	144	12.3
ENGLISH II	132	11.3
ENGLISH III	148	12.6
GEOMETRY	161	13.7
HEALTH	10	0.9
INTEG PHY/CHEM	80	6.8
U S GOVT	15	1.3
U S HISTORY	55	4.7
WD GEOGRAPHY	41	3.5
WLD HISTORY ST	98	8.4
Total	1173	100

As mentioned in chapter two, the PLATO program offered a range of courses for

advanced courses, summer school, homeschooling, original credit and credit make-up.

For a southeast Texas school district, the PLATO learning system was utilized for credit

recovery purposes, exclusively. There were 16 courses available for students in all core

academic subjects. There were more participants in English than Math, Science, or Social

Studies. Students took courses that were taken primarily by ninth and tenth graders,

typically. Reverting to the interview with participant B, she stated that having students in

PLATO versus the general education classroom with younger students afforded over-age

students the chance to skirt by the embarrassment of repeating a course.

Summary

In summary, the research presented was a descriptive study of an example of

computer-based instruction. Some may question the rationale behind studying

curriculum and instruction; yet, the purpose of education is to develop young people in

preparation for college or a career. In chapter two, America's cruel history of excluding

people from school facilities was briefed. Since then, legal proceedings have abolished

such practices and incorporated modifications to accommodate children's needs.

Because of uniqueness within the human race, schools should extract children's strengths

and develop shortfalls rather than label, shun, or feel a sense of pity because of their

processing speed and learning depth. Norms or standards have been developed from

every aspect of the social being. A range of ages were devised for human growth and

development; grade levels existed to cluster concepts within one academic subject;

gender stereotypes were put forth in the home, school, and workplace; exclusion from

public facilities were in effect based on ethnicity; and, limitations were placed on

students because of the family income. Age, highest level of grade completion, sex,

ethnicity, and sometimes salaries were requested information for a typical application in

the business sector. However, schools have fallen prey to trend and formed beliefs based

on patterns but have not altered the instructional program enough to permit every child the fortuity to reach mastery. The data collected was an attempt to determine if specific subgroups were more successful at PLATO than others.

In order to contextualize an overview of PLATO (Programmed Logic for Automatic Teaching Operations), qualitative and quantitative methodologies were used. Each student was allowed the opportunity to work at a pace that was comfortable to her/him; though, students were highly encouraged to complete at least a semester of the academic course, equal to 0.5 credits, within the semester. Some students were able to gain a full year or more within one semester. Truly, the progression speed was determined by the learner.

Addressing the concern of over-age students in the classroom was declared in much of the same steps as the scientific method. A recommended plan of action was to determine the needs, in which this district did when the concerns were discussed at the principals' meeting. Following the identification of the concern, a plan was developed by a committee whose purpose was to find the proper solution. The committee members worked closely with the research department to determine if the principals' observations were showing up in the data. Once the data were analyzed, then the committee reached out to the technology department within the district. The committee relied on the experience of the technology department, since the committee was in a search for a computer-based instructional program. After settling on PLATO, the district piloted PLATO on a smaller scare in order to see if, indeed, the program worked. The committee critiqued the results not only during the early implementation but continued to do so after the program was diffused across the nine high schools and sixteen middle

schools. This process resumed in its cyclical fashion, with some tweaking along the way. In the standardized, open-ended interview transcript, there was evidence that the district administrators' perceptions were that PLATO was the right "fit" for the population in need. The tables in chapter four were constructed to show the trends in this district and were in harmony with the literature selections in chapter two. First, most of the students enrolled were of an age that was equivalent to that of a graduating senior; however, the courses opened for credit recovery ranged from grade nine to twelve with academic subjects such as Math, Science, Social Studies, and English. There was a relationship between the age of students and the course. For instance, 97% of the courses to which students were enrolled were for grades nine, ten, and eleven. On the other hand, only 44% of the students' ages ranged in the spectrum of a general education student who would have been in grades nine, ten, and eleven. In essence, most of the overage students were taking courses designed for younger students.

As history was recorded, immigration – both voluntarily and involuntarily – impacted the ethnicity populations in America. In recent years, the district presented in the study, has witnessed an exponential increase in Hispanics, a decline in Whites, and a plateau in African Americans. Along with this change in ethnicity, the district has seen growth in the numbers of students receiving free or reduced lunch. Out of 1,173 students, 1030 half credits were recovered. One credit was possible for each course and divided into two half credits when viewed by semester. Students were encouraged to complete at least 0.5 credits each semester, even though the program was self-paced. The logic was that the students were able to bypass those modules in which they had already mastered the concepts from whence was enrolled in the general education course. The PLATO

system featured feedback to the instructor so that he could make recommendations throughout the course. If a student was not spending the time working through the lessons, quizzes, videos, tests, and other assignments, then, they were removed from the PLATO class. In this case, the student had to complete the assignments outside of school time; additionally, they were placed into a general education course in order to get instructional support. The drawback was that the former PLATO students were older, in some cases more than three years older, than the average student in the class, which could have fostered a sense of frustration or embarrassment. Ideally, the PLATO concept should produce a 100 % recovery rate, but the success was contingent upon some of the same factors that drove success in regular education classrooms, such as motivation, attendance, good behavior, and doing assignments. For those students whose niche was learning with technology and slightly slower than the average leaner, then the PLATO model may have been the match. In an effort to respond to students at the on-sight of difficulty, having the accessibility to PLATO and its self-paced, mastery features would be the chance to practice democratic education; that is, the freedom to select the preferred style of learning and navigate through the instructional material at a pace that is not predetermined by the state, textbook, district or teacher but by the learner.

Chapter Five: Summary, Conclusions, and Implications

Nearly, the school year has been completed, and children are embarking upon another summer vacation. Last year, David Don Drehele published an article noting that, "We associate the school year with oppression and the summer months with liberty - and nothing is more American than liberty" (2010, p. 36). Drehele's beliefs coincide with others mentioned in the literature regarding achievement gaps among subpopulations and global competition. "…Indeed education reformers have been talking about lengthening the school year – to make America's students more competitive - for at least a generation, going back to the publication in 1983 of the blockbuster report on our troubled schools *A Nation At Risk*" (2010). Though, not in disagreement, extending the hours of the school day would be a step towards progress but not if the pedagogical practices remained unchanged. Having more time to receive instruction in a format that has been proven unsuccessful with certain students will not alter the outcome. Schlechty writes that many Americans cannot fathom a rigorous educational system where all children achieve, regardless of the cliché (2009). Instead, "Our system assumes that the success of some children is dependent on the failure of others" (Schlechty, 2009, p. 7). To have any child not master objectives was a reflection on the values of educators, district leaders, state representatives and the country as a whole. People must conceptualize that, "Academic subjects are important, but there are many ways to learn them and many ways to demonstrate such learning in addition to the ways academics have contrived" (Schletchy, 2009, p. 7).

This document was in response to achievement data and the fact that 100 percent

of students have not passed grade level requirements. Thomas Friedman has deemed the

world as being flat, since the onset of the Internet and other technological advances

(2007). Though, in the education sector, the scene appears to be the contrary. "School

boards spend countless hours figuring out how to formulate policies limiting the use of

cell phones, iPods and Internet access in school buildings" (Schletchy, 2009, p.18).

Prensky extends the argument that while in America there is a fight to ban cell phones,

students in China, Japan, and Germany are using mobile phones to learn English

(Prensky, 2004). The centripetal forces outside of the realm of education entails

technology in the form of POD casts, YouTube, GPS, PDAs, and video conferencing

using cell phones. America's children grew up watching the "Jetsons" futuristic cartoon;

yet, the classroom practices mimic the era of "Leave It To Beaver". "Rather than fight

electronic networking, educators need to learn how to exploit these innovations for

positive educational ends" (Scheletchy, 2009, p.18).

Summary

"Educational failure is an issue too complex and knotty to be 'fixed' by a single

program or approach" (Neito and Bode, 2005).). Yet, "If we continue to teach the same

old way, we will completely miss connecting with our students" (Jukes, McCain, &

Crockett, 2010, p.47). A disconnect existed between teachers and students, which

resulted uninterested students. Of these uninterested students, over one-third of them

drop out before graduation and nearly half are minorities. Many of those who leave

school before completion learn at a slower paced than others and could qualify as

learning disabled (Jukes, McCain, Crocket, 2010). Although this may be the case, the country clings to the traditional, full-frontal, lecture-style teaching to which students were repetitively exposed (Jukes, McCain, & Crockett, 2010); instead, policy makers should flee the old pedagogy and take up a an optional self-paced, technology-based instruction. Tony Wagner interviewed Karen Bruett from the Dell Corporation; and, she stated that, "What goes on in classrooms today is the same stuff as fifty years ago, and that's just not going to cut it" (Wagner, 2008). Incidentally, incorporating such fluidity as self-paced learning and assessment is one step closer to paving an instructional environment that brings ease to students and teachers, alike, versus resentment to conformity. For this reason, examining PLATO as a primitive form of technology-based instruction in a Differentiated Instruction classroom was a platform to begin. In this report, a combination of qualitative and quantitative methods was utilized. Qualitative data provided answers as to why one district sought out PLATO, what were the stand-alone features of PLATO, and the perceptions of the program's success. As with the analysis of any program, the initial process was to determine the organization's needs. Followed by this, stakeholders constructed a plan of action and implemented the steps. Throughout the implementation, assessments - both formal and informal - were made to determine if the program needed tweaking or abandonment. The numeral data were reported by the use of frequency tables and cross tabulations. The findings were promising in that all sub groups showed positive gains in credit recovery with more than 1,000 half credits. The intent of the research was to provide evidence to show that there was a population of learners who experience success by navigating through instruction using technology and at a pace that is not predetermined; because, "people lean at different *paces* – slow,

medium, fast, and all the variations within" (Christensen, Horn, & Johnson, 2008, p28).

Successfully completing the PLATO course allowed those students to earn credits for

academic courses and progress to the next level. Wagner reported (2008),

> …the ways in which young people are different today as learners may be the most
> fundamental change we need to understand as we consider how to close the global
> achievement gap. The use of the Internet and other digital technology has
> transformed both *what* young people learn today and *how* they learn. (p. 178)

To have *all* students become successful, as put forth by the No Child Left Behind

Legislation, the education system must offer an array of options - by way of instruction -

ranging from the most traditional to trendiest formats by which Americans learn and

access information outside of the four walls of a classroom.

Conclusions

From reviewing the interview transcripts, PLATO was meeting the needs of

students in the district. The No Child Left Behind Legislation had challenged educational

stakeholders to have 100 percent of students meet the standards. Since the goal had not

been achieved, new ways of instructing students were discussed. The fluidity of the

literature started out with looking over the history of American education. Throughout

the years, minority populations had fought for liberation; and, as Paulo Freire noted,

challenging old ways of thinking was a progression towards freedom from suppressive

influences. Afterward, ideas were gathered around the topic of multicultural education.

The term had been expanded beyond the misconceptions to encompass a more

democratic outlook of the world. Democracy entitled people to form views using the

resources and methodology of choice. Following the embracement of all cultures was the

unconcealed statistics regarding achievement gaps. Minority populations continued to

trail the White population. Thus, researcher proposed countless reasons for the disparity;

nevertheless, one fact remained was that pedagogical practices have not adjusted enough

to support varied subgroups. Next up for review was appealing trends related to

instruction. Deliberated on in chapter two were cooperative grouping, Marzano's high-

yield strategies, and Differentiated Instruction. The instructional philosophy of the

district represented in this study was heavily influenced by the DI, Marzano's strategies,

and small-group learning. Topping off the literature review was research on the well-

established PLATO program. PLATO had been in effect for over five decades and

modified to keep up with the prevailing course of society. The program offered a

spectrum of services to meet the demands of advanced curriculum and credit recovery.

The self-paced attraction made the learners' time more conducive by allowing students to

bypass the familiar objectives and devote more time to difficult concepts. Analogous to

the scales of justice was an inner struggle between the comfort zone and venturing

towards unfamiliar territory. Consequently, the establishment of a self-paced model

coupled with Differentiated Instruction would lessen or eliminate the camouflaging of

unique learners, typically - identified by labels - and make equality within reach.   Most

of PLATO's enrollees, for this district, were successful. Out of 1,173 PLATO students,

over 1,000 half credits were recaptured; undoubtedly, the PLATO program was a

success. For those students who did not earn credit, other options in a differentiated

instructed classroom may have been more suitable. The reasons for non-completion were

unknown. Some students may have moved away, while others may have preferred the

general education setting. Still, some students may have been in an "in-progress" state at

the time the district pulled the credits recovered. If the data were extracted again, at the

end of the school year, the speculation is that the frequency number would be relatively

the same and the credits recovered would have grown. At the time of this research, the

district used PLATO for credit recovery purposes, solely. Other districts had utilized the

program for original credit and advanced courses. Because the company allowed for the

" fine tuning" of modules to better suite each district's needs, offering PLATO modules

in a regular classroom for original credit was conceivable. The district might

contemplate using original and credit recovery PLATO during summer school as well as

using the original credit recovery program for extenuating circumstances, such as with

homebound students. Hopefully, district leaders will take a closer look at the success and

consider affording *all* students the choice to learn using the PLATO experience.

Implications for Future Research

The purpose of the present study was to provide a descriptive study of PLATO as

evidence that the program might be implemented in regular education classrooms. If the

program worked for students in all subgroups, then capturing the students who learn best

with technology and self-pace instruction could perpetuate success. Meanwhile, one

major, research constraint was the data collecting time table. Data were collected in

March and April, which limited the amount of resources sought out. The study revealed

the perceptions of two, central office administrators along with archival data from the

2010-2011 school year. To extend the research, surveys of school administrators and

PLATO teachers would have expanded the outlook of those who work closely with the

program. Additionally, the researcher could conduct numerous classroom observations to provide a qualitative analysis of the interactions between students with other students, students with the teacher, and students with technology. To test for the significance of impact the program had on student performance, a researcher may opt to analyze a general education course with the comparable PLATO course while using chi squares. Finally, dissecting the data by analyzing the credit recovery rate of each course would inform district leaders if the PLATO program was more conforming with specific subjects.

Closing Remarks

The heartbeat of every American - regardless of religion, ethnicity, age, gender, social standing or political preference - should espouse a tune in alignment with the statement of the late Martin Luther King when he said:

> I'm going to work and do everything that I can do to see that you get a good education. I don't ever want you to forget that there are millions of God's children who will not and cannot get a good education, and I don't want you feeling that you are better than they are. For you will never be what you ought to be until they are what they ought to be. (Clayborn, 1998, p. 356)

Change starts with at least one person with one idea. The intent of this document is to leave a residue of passion that a person living in deep waters possesses. Mitt Romney (2007) wrote:

Over the years, I have watched a good number of people live out their lives in

shallow waters. In the shallows, life is all about yourself, your job, your

money, your house, your rights, your needs, your opinions, your ideas, and

your comfort.

Conversely, "In the deeper waters, life is about others: family, friends, faith, community,

country, caring, commitment. In the deeper waters, there are challenging ideas, opposing

opinions, and uncomfortable battles" (Romney, 2007). Let's press on advocating for the

rights of all children by considering extending the PLATO program beyond a fixed

classroom filled with non-traditional students to all general education classrooms.

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APPENDIX A: PLATO OPEN-ENDED STANDARD QUESTIONS

PLATO Open-ended Standard Questions

1. What is your title and responsibility in the district?

2. What is your philosophy of education?

3. What are the top three expectations of principals?

4. What are the core beliefs and instructional practices in the district?

5. What are/were the district's needs that required you to seek out an alternative form of instruction?

6. What other programs did you review prior to the PLATO decision?

7. What sold you on PLATO as opposed to the other programs?

8. Has the PLATO program been a success? Explain why or why not?

9. If you had the option of changing the "alternative learning program", would you select PLATO still? Why or why not?

10. Do you foresee extending PLATO into the general education setting as a part of your Differentiated Instruction philosophy?

APPENDIX B: HUMAN SUBJECTS APPROVAL LETTER