

UNDERSTANDING THE ROLE OF CURRICULUM
PACING IN RELATION TO AT-RISK STUDENT
LOCUS OF CONTROL

By

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Dedicated to my hardworking and supportive wife Gloria.

To my late father Johannes, late mother Mercy and late brother Alfred,

may their beautiful souls rest in peace

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My gratitude goes first to the Almighty God who made this dream come true for me. I thank my wife Gloria for standing with me through thick and thin in this entire process. My appreciation goes to my late father Johannes, late mother Mercy and my late brother Alfred for the unforgettable roles they played through the years in my education.

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Percy Reginald Welsing

PREFACE

As I taught in the public-school systems over the years, I witnessed students who got pregnant in their early teens. I witnessed students who found themselves on the wrong side of the law. I witnessed students who were truant most of the time and when asked why, they would tell you that they were babysitting their siblings. I witnessed students who were homeless and moved from one foster home to the other. I witnessed students who had behavioral issues and could not create the environment for a meaningful teaching and learning to take place. Some students worked one or two jobs to support their families due to socio-economic issues.

As I witnessed the many issues confronting the students, I knew that the students were at risk of dropping out of school if nothing was done about the situation. As I thought and planned towards my dissertation, I settled on my current topic to help find out if self-pacing of curriculum would motivate them and help these students stay in school and become successful.

ABSTRACT

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Adviser: Julia B. Smith, Ed.D.

The purpose of the study was to explore the possibility of mitigating school drop out of at-risk students by self-pacing of curriculum in an alternative institution. To accomplish this goal, I interviewed seven students and five staff members comprising three teachers and two administrators, a total of twelve interviewees to solicit their opinions on the issues at hand. Purposeful sampling was used to identify participants who were “information rich” to conduct my interviews.

I used a qualitative case study to research the causes of failure of at-risk students and the solutions to at-risk student school dropout. Participants were asked to tell the impact of self-pacing on students’ locus of control, and if there was any relationship between at-risk students’ use of self-pacing and their experience of test-taking. They were also to explain if there was any relationship between at-risk student self-pacing and their feelings about school dropout.

The responses revealed five themes; the barriers to academic success which included childbearing/nursing mothers, law enforcement issues, behavioral issues, homelessness, and jobs/employment. Another theme that emerged was that the students saw the alternative school as the last opportunity for them to succeed. That alternative schools offer many options and levels of support and there is variability of success in alternative schools. The final theme was what I called intervention synergism, meaning that when several options or treatments are prescribed, there is a likelihood that one or two of the options would be able to address the issues confronting the students at-risk.

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CHAPTER ONE

OVERVIEW

It has become general knowledge that the current job market and its accompanying remuneration depends on one's educational level. The higher one climbs on the achievement ladder, the better bargain power one has in terms of remuneration. It stands to reason that obtaining a high school diploma puts one in a better position to secure a better paying job. There is therefore a need for at-risk students to improve on their academic achievement to earn their high school diplomas and even earn college degrees if possible. As the saying goes, the sky becomes the limit.

In an effort to address at-risk student academic achievement issues, it is necessary that we understand their views on academic performance. Over the years of teaching in a predominantly African American community, I have observed that many at-risk students desire to obtain good grades, but they do not have the non-cognitive skills such as motivation, to obtain the grades they so much desire. At-risk students have potential that needs to be maximized and therefore education should help them develop their potential to the maximum. Ozmon (2012) alluding to the existentialist belief wrote,

The teacher should look for the potentiality and wisdom of the person and work for self-directed change on the part of the learner. This risk involves not only the individual teacher's sense of self, but also his or her willingness to trust the learner. This means that the teacher must become a "facilitator of learning" to help release a student's potential. (p. 228)

According to the existentialist view, each student is endowed with potential which should be developed by the teacher. The teacher is expected to be a facilitator, and that the

student is capable of making sense of the material given by the teacher. Educators and administrators should allow students the freedom to make their own choices and develop their individual potentials, because they are all different and they should not impose curriculum on them.

Motivation is a necessary quality for each individual to help us achieve our goals. According to McClelland (1980), motivation is the aspect of a person that drives, directs and selects his/her behavior. Motivation is an important psychological condition that undergirds the desire, the determination and persistence with which people approach all endeavors, be it a job, sporting activity or education for that matter. Educators and researchers should focus on how to motivate at-risk students to achieve academically rather than focusing on teacher quality or other factors as socioeconomic status. My research therefore aims to investigate at-risk students' motivation as it may be impacted by the implementation of instructional self-pacing which will allow at-risk students to set their own pace, determine what they want to learn, when they want to learn and how they want to learn. The onus rests on educators and researchers to find ways to motivate at-risk students in order to rescue them from their current predicament. It is my hope that self-pacing will be a viable option to the traditional school system which is teacher directed for at-risk students who were at risk of dropping out of school to remain in school until graduation. As stated earlier, during my years of teaching and working with at-risk students, I observed that students want very good grades, but they lack the motivation to apply themselves to the disciplines and rigors of study which would help them obtain good grades, so I would also investigate the effect of self-pacing on their

preparedness in taking tests. It is hoped that self-pacing would improve the readiness with test taking because the student feels ready for the test to enable them to make the grades they so much desire as opposed to the traditional schools where the teacher sets the pace and says that it is time to take a test.

Background

Background on At-Risk Students

Beach (2014) defined at-risk students as those who “experience a mismatch between their circumstances and needs, and the capacity or willingness of the school to accept, accommodate, and respond to them in a manner that supports and enables their social, emotional, and intellectual growth and development” (p. xiv). In other words, the school systems have over the years failed to identify strategies that would address the problems of at-risk students, either because they do not understand the underlying issues or that the solutions proposed have not been contextualized to the needs of students at-risk. Price (2015) also defined at-risk student as any student that meets at least two of the following criteria; has a history of abuse or neglect, falls below grade level in mathematics and English, has a teenage parent or pregnant teenager, qualifies for free or reduced price lunch, has atypical behavior or poor attendance, has family history of incarceration, failure or substance abuse. Based on the definitions of at-risk students from the literature, I would define an at-risk student as any student who comes from an environment, especially urban who has a high probability to drop out of school as a result of negative trends in their environment that impacts their lives. Anything that is at risk,

has a potential to end in failure or disaster. There is a high probability that the end result for the student will be negative if the circumstances are allowed to continue without the necessary interventions. The economy, companies, the environment, health, people and students for that matter could all be at risk if the circumstances are negative, and effort is not made to counteract the circumstances that render them at-risk. As Beach rightly defined, the circumstances of at-risk students are such that their needs for educational success are not met which results in academic underachievement and in many instances end in failure or drop out from school. It is the motivation of at-risk students to do well academically that is central to the discussion of this paper.

The discourse on at-risk students has been ongoing for decades and many researchers have identified the family background and the environment as the major contributors to at-risk student development. At-Risk students are saddled with many issues that impact their lives negatively and researchers such as Lipsey and Derzon (1998) argued that the causes of at-risk behavior begin very early in life with underachievement, family issues, lack of motivation and lack of self-control. They went on to say that at-risk characteristics are rooted in family background, physiological causes and emotional, social as well as environmental factors. Beach (2014) also affirmed that the characteristics of at-risk students are identified as factors of their environment and are therefore difficult to recognize and change. Many factors impact the lives of at-risk students but the impact of environment and family is very profound.

Many factors in the homes of at-risk students cause them to lose interest in school at very early stages of their lives. Beach (2014) argued that students who are consistently

truant may do so because they do not see education as a priority. They skip school in order to babysit siblings. Sometimes family adversities or personal behavior choices such as addictions stand in the way of keeping up with their academic demands. She went on to say that at-risk students generally tend to lack interest in school activities. Beach identified several other characteristics of at-risk students which include; mental health disorders, impulsivity, court cases and victimizations. Students with mental health disorders may have difficulty staying on task, following rules, socializing, and may find difficulty responding to change. Students with ADD or ADHD may not necessarily have deficiencies in their academic ability, but some may require accommodations. Students with impulsive behavior do not consider the consequences of their actions before they act. Such students are prone to cause violence or get into trouble with the law and sometimes result in the involvement of the courts. In instances where the student's behavior ends in the courts, a school-home-community model of education is recommended.

At-risk students sometimes become victims of abuse of all kinds and as a result, need protection and compassion from schools. Beach (2014) explained that since the parent is the first educator in every child's life, adversities-issues in the life of parents such as lack of resources has negative consequences in the development of children, and lack of monitoring of child's academic progress causes children to become at-risk. Low socioeconomic status (SES) has a negative impact on a child's pre-academic development. High drop-out rates of students in these low SES communities help to perpetuate the level of poverty in these communities. Early interventions and resource

provision has become increasingly necessary to avert these risk factors. At-risk students are burdened with numerous challenges, as a result, they are not passionate about learning. The causes outlined by Beach and other researchers explain the root cause of some at-risk factors which need to be addressed in order to help at-risk students overcome their predicament. Beach summarized at-risk student characteristics as follows:

- At-risk students experience limited success in school.
- Some at-risk students are achievers but have poor management skills and not capable of maximizing their potential and others have below-average skills and no matter how hard they try are unable to improve on their deficiencies.
- They are as ambitious as their counterparts who are highly motivated. The difference though is, they have misaligned ambitions and for that reason, they find themselves not being able to realize their dreams.
- They lack the ability to follow the rightful educational and career paths.
- Beach went on to say that at-risk students are low academic achievers.
- They have a vague idea of what is at stake and lack the skills for mastery, “their work is often carelessly prepared, incomplete, inaccurate, inconsistent, late, or not submitted at all”.
- They lack the support system necessary to help in their discipline as well as lacking the guidance and support with their assignments.
- They have no clue as to how to adapt, work hard, apply themselves to the content of study and use resources to acquire the skills needed for success.
- Their understanding of school is just to memorize definitions rather than being able to understand and apply concepts or sometimes their unwillingness to do so (Beach, 2014, p. 17).

At-risk students are unable to apply themselves to the rigors of school life because they lack the preparation and the readiness that is required to succeed in school. This is a result of the negative circumstances in their home, neighborhoods as well as school systems that are under resourced.

Background on Achievement Motivation

Motivation is an important psychological condition that undergirds the desire, the determination and persistence with which people approach all endeavors, be it a job, sporting activity or education for that matter. As stated earlier in the overview, McClelland (1980), defines motivation as the aspect of a person that drives, direct and selects his/her behavior. Maslow (1943) defined motivation as a process that starts with a physiological or psychological need that activates a behavior or a drive that is aimed at a goal. Maehr and Meyer (1997) have employed the term “personal investment” as an alternative for the term “motivation” which examines actions taken by individuals. They went on to say that all are motivated, all have resources, time, energy, knowledge and skills but the question is when and how do people invest their resources, time, energy and skill in an activity. They stated “Investment is seen in the *direction, intensity, persistence* and *quality* of what is done and expressed” (p. 373). In other words, investment determines the seriousness, the amount of time and energy that one puts into an activity such as sports, education or job for that matter. The way and manner individuals approach an activity will determine their investment in that activity i.e. the passion and the premium that one places on the activity. According to Maehr and Meyer,

Anecdotes and the statement of experts aside, the answer seems self-evident when one notes what motivation researchers study: the *choices* that people make among things to do, the *persistence* in those choices, the *quality* of behavior exhibited as they engage, and so forth. Such investment not only initiates but shapes the acquisition of skills and the construction of knowledge. So, motivation is indeed the *sine qua non* for learning. It is at the heart of what schools are about. (p. 377-378)

The work output has a direct correlation with the individual's motivation which is essential for the success of any undertaking be it in the school or on the job. The amount of effort, the enthusiasm and the zeal with which students approach their work is vital for their success in school. Motivation is the driving force that compels students to do what they do and how they do it. It helps to shape, equip and prepare them for the future. Much of their success in and outside of school depends on it. Based on the discourse of motivation above, I define achievement motivation as the desire in a student which urges him/her to study with understanding with the goal of achieving academic success with its concomitant future success in life.

The subject of motivation is complex and broad but it is the theory that explains what goes on in schools, that which causes teaching and learning and that which brings productivity to the workplace. It dictates what people will be up to in their future. Maehr and Meyer (1997) viewed this subject as a "broad and diverse motivation literature, complex in scope, and varied in treatment" (p. 78). In spite of its complex nature, and the nuances of the subject matter, its rudiments are embraced by all theorists and the fact that they all agree that it shapes people into who they are and what they can become cannot be denied. David McClelland, a former student of Clark Hull, was responsible for bringing the theory of motivation from the laboratory into the real world and is therefore accredited as being the father of contemporary studies in motivation (Maehr & Meyer, 1997). Maehr and Meyer also identified three research paradigms in motivation; the individual, the situation and the social. Motivation is therefore at the heart of what people do, it guides their mental frame, energizes and drives them towards their goal as

individuals, as a group or society. It is a determinant of who they are and what they are capable of achieving in life.

Background on Self-Paced Curriculum

The learning preferences of students as well as the different pace at which students learn, requires that instruction be delivered in a way that meets the needs of the student. Kulik (1982) noted that self-paced instruction has been used in diverse forms since the mid-1800s, however, it gained popularity from the 1960s onward. During his initial presentation of the Personalized system of Instruction (PSI) program, Keller (1968) laid emphasis on the “...go-at-your-own-pace feature, *which permits the student to move through the course at a speed commensurate with his ability...*” (p. 83). Each student is given the freedom to study at a pace convenient for him/her. The students are allowed to choose the pace, the manner they want education to be delivered because they are all different. According to Stowers and Tessmer (1986),

Self-paced instruction is an instructional method that continues to grow in use through all levels of American education. It can be used to satisfy the learning needs of a wide variety of traditional and nontraditional learners and to address institutional problems such as distant learners, low-enrollment courses, student recruiting, and faculty overload. (p. 17)

Students who work or take care of family members can take advantage of self-paced instruction to balance their family commitment and school. Students can as well enroll in school from any part of the world when they self-pace their instruction. Self-paced instruction is growing at a fast pace, being accepted in educational institutions as an alternative form of instruction due to its flexibility and convenience as well as not being

restricted by distance. It eases faculty overload, improves enrolment as well as improving financial capacity of institutions. Based on the above literature, I would define self-pacing for this research as a mode of instruction in which a student decides what he/she learns, when he/she learns and how he/she learns. Self-pacing can provide many benefits, not only in academic achievement but also provide a means of enhancing student enrolment in institutions and faculties that are struggling in meeting their financial obligations.

Every student has the capacity to learn and do well academically. According to Tomlinson (1999), differentiation is doing “whatever it takes to ensure that struggling and advanced learners, students with varied cultural heritages, and children with different background experiences all grow as much as they possibly can each day, each week, and throughout the year” (p. 2). Every child should be given the opportunity to maximize their potential irrespective of their background or achievement level. Students differ in their learning preferences, differ in their levels of achievement as well as the pace at which they learn. Their level of comprehension is impacted by their background, vis-à-vis education, culture, environment as well as their physiological condition. It is incumbent on the teacher to apply strategies that will help reach each student at their level and ensure that no student is left out of the teaching and learning process. Eniaiyaju (1983) also alluded that the student body in colleges nowadays has a wide range of characteristics due to the differences in their background. Some students learn very well when they self-pace, others need guidance from the instructor, still others require a

setting where lectures are delivered by an instructor, therefore, the students' learning preferences are paramount in their academic success.

There is a need for fairness in the delivery of information by teachers because students differ in their individual abilities. Tomlinson (1999) noted that this realization calls for individualized instructional programs that can provide the student with learning tasks suitable to his/her needs and allowing the student to take control of the pace of the learning material. The background of students has become increasingly necessary in determining the instruction suitable for their success. In order for instruction to benefit all students, it has to be delivered in a fair manner. Manning, Stanford and Reeves (2010) make the following analogy,

A generalized example of fairness is the use of glasses. A student needs glasses to see effectively, but asking all children to put on glasses because one student needs them is foolish and a waste of time for all of the parties involved. Yet it seems that sometimes teachers and other stakeholders in education want everyone to wear glasses: those who need them and those who do not. (p. 146)

Students differ at the pace at which they comprehend concepts. Some are fast, others may need some accommodations. For a teacher to assume that every student comprehends at the same pace or that every student needs accommodations will be an injustice to the students. Teachers and other stakeholders in education should seek to assess the needs of students on individual basis. The one size fits all instruction does not result in the academic success of every student since they differ in many ways. Welch (2000), alluding to the importance of fairness in education, wrote that the teacher has to focus on developing intrinsic motivation in each student. It is important for each student to be taught what he/she needs and that instruction should be delivered in a manner that is

suitable to the student and that all students should not be taught the same instruction in the same way.

When teachers consider the needs of individual children, then the process of teaching all students becomes quite clear. The idea that students in the bottom 25% of the class in academic abilities have needs that vary from those students in the top 25% of the class academically is obvious, yet many classrooms are still structured for one-size-fits-all instruction (Murray, Shea, & Shea, 2004). The educational needs of high achieving students differ from low achievers or students at-risk. To teach to the middle will be neglecting the needs of those at the top 25% and those at the bottom 25%. The argument for Differentiated Instruction is well documented and all students, advanced as well as at-risk students, need differentiated instruction to meet their specific needs. Differentiating instruction will motivate all groups of students at different achievement levels to develop their potential. In order for effective instruction to take place, teachers should identify the learning preferences of each student to meet their academic needs. According to Manning et al. (2010) “teachers should emphasize the point that it is not important that all the students are doing the same thing at the same time, but that each child receives the instruction he or she needs” (p. 148). Some students require accommodations or support, while others are self-regulated and can make progress with very minimum support. These two groups of students are at different achievement levels and learn at a different pace and the teacher has to differentiate to reach them at their level.

Specific Research Questions

The purpose of this research is to investigate the impact of self-pacing on locus of control of at-risk students. In other words, the study explores the possibility of mitigating school drop out of at-risk students by self-pacing of curriculum in an alternative institution. To accomplish this, the study will attempt to address the following questions:

- (1) Is self-pacing related to at-risk student internal locus of control?
- (2) Is the use of self-pacing related to experience of test-taking for at-risk students?
- (3) Is there a relationship between at-risk students' experience with self-pacing and their feelings about school dropout?

The first question will enable me to examine the level of motivation of at-risk students in a self-paced school environment. The second question will seek to investigate whether there is a difference in testing experiences by transitioning of students from mainstream to an alternative self-paced school system. Hypothetically, one would hope that the self-paced curriculum would enhance test taking and improve their achievement because they would only take a test when they were prepared and ready to do so as opposed to the traditional school system where tests were taken under order. The third question will enable me investigate if self-pacing will help students remain in school until graduation. More specifically, my research will enable me to better understand the impact of choice/action choice on student achievement motivation and its relevance in the quest to address at-risk student underachievement and dropout issues which is of concern to policy makers and stakeholders.

Significance

The methods and procedures that educators have used over the years makes it difficult for them to accept new methods of teaching. According to Jónasson (2016) “Traditions, traditional values and often very strong interests keep education within the confines of old times (some even see this as the role of education). The traditions are strong and rigorous and so are the conservative constraints”. Traditions and norms of education are very difficult to change because it is believed that things are done in a certain way and also that education is supposed to keep things the way they are. The inertia of the conventional method of teaching make it difficult to bring about change in the educational establishment (Sherman, 1992) as well as “the zeitgeist that permeates educational reform” (Buskist, Cush, & DeGrandpre, 1991, p. 215). The spirit of conventional methods of teaching, culture and accepted norms which people are used to, make it difficult for them to embrace change and try new methods such as the Personalized System of Instruction known as PSI. Buskist et. al. suggested that PSI was blocked from courses by administrators because of the belief that lecturers were not actually teaching if they were not standing in front of a classroom. Change process is difficult for educators, parents and policymakers alike because of the notion that there can be no teaching without a teacher being in charge.

According to my definition of at-risk students, the negative trends confronting this population includes but not limited to low SES of parents or pregnant teenager as well as other negative trends in the population. As discussed earlier in the paper, Beach (2014)

argued that students skip school in order to babysit siblings, or as a result of family adversities and some students have to work to support their families. To ensure that these students also have access to education, self-pacing is a probable alternative and the importance of the option of a self-paced curriculum cannot be overemphasized, thus ensuring that these students graduate from school. Therefore, the impact of a self-paced curriculum on the students' achievement motivation should be researched and encouraged as a viable option to a conventional form of education. One-size fits all mode of instruction is becoming a thing of the past because students differ in their backgrounds, pace at which they learn, their learning preferences as well as in their levels of achievement and motivation.

CHAPTER TWO

THEORETICAL FRAMEWORK

Introduction

This chapter focuses on the theoretical underpinnings of motivation vis-à-vis the form of motivation theory that I will apply to investigate at-risk student achievement motivation. In addition to the theoretical framework, I will also examine what is already known about the impact of self-pacing on achievement motivation of at-risk students and with that backdrop, determine my research procedures. I believe my research findings will add to the body of knowledge on at-risk student achievement motivation.

My research focuses on students in an alternative education institution at-risk for school dropout. I have identified three achievement motivation theories; Achievement Goal Theory, Self-Determination Theory and Locus of Control which I find relevant to the discourse on at-risk student achievement motivation.

Achievement Motivation Theory

Achievement motivation theory, originally postulated by Atkinson (1964) has been tested by other researchers to assess its authenticity with corrections and slight changes being made as well as other revisions being reported (Raynor, 1969). It basically deals with the motivation of individuals to achieve success and avoid failure. Shimoyama (1974) wrote, "In Atkinson's theory of achievement motivation (Atkinson, 1957) it was assumed that the resultant tendency which is an algebraic summation of the tendency to

achieve success and the tendency to avoid failure is the intrinsic factors of achievement motivation” (p. 197). In order to determine one’s achievement motivation, there needs to be a sum of the totality of that individual’s propensity to achieve success and the propensity to avoid failure.

Achievement Goal Theory

A form of Achievement motivation theory that has gained a lot of acceptance in motivation theory is Achievement goal orientation theory. “Achievement theorists focus on students' intentions or reasons for engaging, choosing, and persisting at different learning activities” (Meece, Anderman, & Anderman, 2006, p. 490). In other words, there is a fundamental reason for choices students make. Some students want to obtain good grades, and others want to comprehend the concepts they study at school as this theory elaborates. Many contrasting forms of achievement goals have been identified by researchers, but two forms have been researched extensively and many reforms in schools have been based on these; the mastery and performance goal orientations. Researchers have identified forms of student achievement orientations such as learning for understanding and learning for the reason of earning a good grade as well as other reasons students have for doing what they do. Meece, Anderman, and Anderman (2006), have explained the two types of achievement goal orientations,

A mastery goal orientation is defined in terms of a focus on developing one's abilities, mastering a new skill, trying to accomplish something challenging, and trying to understand learning materials. Success is evaluated in terms of self-improvement, and students derive satisfaction from the inherent qualities of the task, such as its interest and challenge. By contrast, a performance goal

orientation represents a focus on demonstrating high ability relative to others, striving to be better than others, and using social comparison standards to make judgments of ability and performance. A sense of accomplishment is derived from doing better than others and surpassing normative performance standards. (p 490)

Mastery goal orientation focuses on understanding of the concepts taught in class, a sense of satisfaction accompanies mastering the subject matter but on the contrary, performance goal orientation pays more attention to doing better relative to others, a form of ego-satisfaction accompanies performance goal orientation. These two forms of achievement goal orientations have further been distinguished as; performance-approach goals, performance-avoid goals, mastery-approach goals and mastery-avoid goals. Elliot and Church (1997) explained that students with performance- approach goals want to be seen as being competent, but students' having performance-avoidance goals aim to avoid being seen as lacking competence. Pintrich (2000) also identified two forms of mastery goals as mastery-approach goals and mastery-avoid goals. Students who have a mastery-approach goal want to learn, understand and to be able to apply concepts. On the other hand students who have mastery-avoid goals, want to avoid misunderstanding of concepts or avoid a situation where they cannot learn or understand concepts.

Researchers are of the view that students could hold several goals at the same time depending on the classroom contexts (Bouffard et al. 1995, Harackiewicz et al. 1998, Meece & Holt 1993, Pintrich 2000, 3). Researchers are also of the view that students can adapt to several goals simultaneously depending on their learning situation which may "have different motivation and achievement outcomes" (Meece. et. al., 2006, p. 492). The teacher and administration can influence the orientations of students

depending on the classroom structures, the policies of the school and how these are tailored to impact the achievement orientations of students. “It is still not clear what combination of goals is most adaptive for which group of students, achievement tasks, and learning contexts” (Midgley et al. 2001). Motivation theories still remain very complex and requires the skill of the teacher to adapt to different kinds of contexts to help students in their academic achievement. According to Meece, Anderman and Anderman (2006), the goal orientations of individuals may also be shaped or influenced by the goal structure of the classroom as well as the school environment based on the teachers’ instructional practices and the policies of the school administration. It is concluded therefore, that one’s achievement goal has a direct influence on the quality of his/her mental capacity, and what the individual is capable of achieving in life (Pintrich 1999, Zimmerman 1990, Zimmerman et al 1994).

As described earlier by Beach (2014) at-risk students have no clue as to how to adapt, work hard, apply themselves to the content of study and use resources to acquire the skills needed for success. Their understanding of school is just to memorize definitions rather than being able to understand and apply concepts or sometimes their unwillingness to do so. When oriented to performance-avoid goals, students’ purpose or goal in an achievement setting is to avoid the demonstration of incompetence, attention is focused on the self. A performance-avoid goal orientation has been associated with maladaptive patterns of learning. At-risk students do not have the willingness to understand and apply concepts due to their maladaptive patterns of learning as illustrated by performance-avoid and mastery-avoid goal theories.

Self-Determination Theory

These theories provide insights into the motivations of different groups of students. For example, the impersonal orientation of the causality orientation theory, explains the causes of the negative attitudes of at-risk students towards their education. Ryan and Deci (2017) wrote that individuals with impersonal orientation react to obstacles which stand in their way of goal attainment in a negative way, i.e. that they “lack intentionality, initiative, and a sense of personal causation” (p.218). People with impersonal orientation easily get frustrated and bow to external pressures, forces, get emotional and give up trying and succumb to failure. “While social class, race, and family structure are not manipulable by the schools, their direct impact on the amount of material and intellectual resources available to children can be enhanced by school programs” (Vacha & McLaughlin, 1992, p. 11). Schools have the capacity to engage students by their policies, structure and classroom procedures. It can provide the resources that are needed to support at-risk students’ in their educational pursuit. It is the volition, autonomy and the enhancement of intrinsic motivation which cognitive evaluation theory provides, that makes it relevant to the conversation on impact of self-pacing on at-risk student’s achievement motivation.

In order to feel autonomous, one has to have volition and choice in the kind of activity or task to be undertaken in order to enhance intrinsic motivation. According to Ryan and Deci (2017),

If people were allowed to choose what activity to do or how to do it, CET would predict that they would tend to experience a greater sense of autonomy with respect to that behavior—that is, the PLOC would likely become more internal. If the tasks available were interesting or the rationale for them clear, this, too, should lead to enhanced intrinsic motivation. (p. 150)

Individuals should have a sense of autonomy, meaning that they need to have control of their circumstances which would cause them to put much effort in the task. Choice has many benefits for the student because he/she decides what to do and how to do it. That sense of volition creates an I-PLOC because of the satisfaction that the student gains in pursuing that activity.

After school programs, interventions and strategies can mitigate some of the problems at-risk students have to deal with such as lack of parental involvement with homework. Allowing students to self-pace as to what, when and how to study a unit which is the focus of this research will impact *student engagement with material*, enhance intrinsic motivation of students and save them from dropping out of school. De Charms (1968) made a distinction to further extend and bring clarity to Heider's (1958) proposed personally caused behavior. He argued that,

Some intentional acts are accompanied by an *internal perceived locus of causality* (I-PLOC), whereas other intentional acts are characterized by an *external perceived locus of causality* (E-PLOC). Only the former, I-PLOC, category concerns actions that are truly volitional and for which one experiences oneself as an *origin* of action. The latter, E-PLOC, category represents instances in which one feels made to behave, in which one is a *pawn* to external pressures or potent inducements. With behaviors having an E-PLOC, one intends the behaviors and their effects, so they are personally caused, but one experiences the behaviors not as chosen, but rather as compelled or impelled by either external or introjected forces. (p. 66)

The actions that individuals take on the job or in school are influenced by two potential sources; a result of personal convictions/choice or could also be a result of personal convictions/choice borne out of external influences or pressure. Reeves, Nix, and Hamm (2003) conducted an investigation to ascertain the benefit of *option choice*, where students were at liberty to choose the topic to be discussed in class as well as *action choice* where students had a choice on topic as well as when, where, how, and with whom the activity could be done. Reeves and colleagues on separate occasions concluded that action choice created a sense of volition, I-PLOC and enhanced intrinsic motivation. Also, according to a meta-analysis of 41 studies involving children and adults on the effect of choice on intrinsic motivation by Patall, Cooper and Robinson (2008) they concluded that having a choice as to what to learn/do enhances intrinsic motivation as well as enhancing effort, task performance, and competence which is consistent with cognitive evaluation theory (CET) that choice supports autonomy and intrinsic motivation. The research further indicates that when tasks are presented in such a way that people have choice in what to do and how to do it, intrinsic motivation is enhanced.

Two conditions that also help in this enhancement is the interest as well as the clarity of the rationale for doing the activity. From research conducted by Zuckerman, Porac, Lathin, Smith, and Deci (1978) on choice in solving a puzzle, they found out that participants who could make their choice on the type of puzzle to solve, were intrinsically motivated as compared to the no-choice participants. In another study by Patall, Cooper, and Wynn (2010) it was found that students who had choice of the type of homework were intrinsically motivated and had higher homework completion rate, higher perceived

competence, and scored higher on tests regarding the homework than those who did not have a choice. The options should however be of value to the people in order to enhance intrinsic motivation.

Self-pacing would hypothetically, fulfill the need for autonomy support rather than students being coerced, which is vital for the satisfaction of at-risk student's basic psychological needs. Educators in alternative educational institutions provide structure and support when needed as well as provide rationale for the tasks that students engage in as substitute for chaos. In addition, the warmth of teachers rather than rejection satisfies all the three psychological needs of students; autonomy, competence and relatedness, thus helping at-risk student's school engagement which is expected to increase learning and achievement.

Another issue worth noting about at-risk students is that some are high achievers but they lack skills to apply themselves to their studies. According to a research conducted by Fine and Rosenberg (1983) on South Bronx dropouts, the results indicated that these students were achieving above average, they had no deficiencies and came from backgrounds with cultural capital contrary to the information presented in most literature. The fact that some students are above average makes it even more imperative that schools put structures in place, identify the kind of strategies that would impact students in a positive way to help them stay in school till graduation. They also argued that what was most important is the school characteristics rather than, either individual-level or family-level factors especially for the large number of minority students who do not have the same profiles as the traditional at-risk student. Beach (2014) has also alluded

to this fact that some at-risk students are achievers but have poor management skills and not capable of maximizing their potential.

The research findings of Fine and Rosenberg (1983) suggest that much emphasis should be placed on improving school characteristics-policies and structures and practices that enhance intrinsic motivation and learning goal orientations rather than focusing on student or family factors. According to the theory on external events as supports for intrinsic motivation, the reason for dropout could be a result of structures and policies in the school which undermines intrinsic motivation since the students are supposedly high achievers and possess all qualities that should make them succeed in school. If the student is given a choice to decide what to do and how to do it, that sense of volition creates an I-PLOC because of the satisfaction that he/she gains in pursuing that activity. Interest in the activity and the clarity of the rationale for doing an activity are two conditions that also help in this enhancement. Alternative education institutions have tutors who provide individualized assistance as needed by students. With the two conditions satisfied, first by choice, and tutors who may assist with the clarity of rationale for doing an activity, at-risk *student achievement level* could be raised.

Application of Locus of Control to At-risk Student's Achievement Motivation

At-risk students experience hopelessness because they lack the skills necessary to achieve academically. They feel that external forces prevent them from being successful. According to Rotter (1966), locus of control is “the degree to which the individual perceives that [a] reward follows from, or is contingent upon, his own behavior or

attributes versus the degree to which he feels the reward is controlled by forces outside of himself and may occur independently of his own actions” (p. 1). In other words, it is the capacity which an individual has to control or influence the outcomes of an activity or that the outcomes are a result of some external forces which he/she has no control over. At-risk students drop out of school because they feel inadequate to control their circumstances

When an individual has control over the outcome of an activity, it is referred to as internal locus of control. On the other hand, when the individual has no control, but a result of “luck, chance, fate, or the control of powerful others” it is referred to as external locus of control (as quoted by Beretvas, Suizzo, Durham & Yarnell, 2008, p. 97).

External factors that are beyond human influence and control sometimes determine outcomes of an activity. At-risk students' inability to cope with the pace in regular classrooms poses a challenge to their motivation. It is hoped that self-pacing as a school policy will impact the students in a positive way, enhancing internal locus of control with its accompanying *school engagement*. Beretvas, et. al., (2008) stated that, Locus of control is rooted in social learning theory (Rotter, 1954), which states that when a behavior is reinforced, the expectancy that this behavior will be similarly reinforced in the future is strengthened. Reinforcements perceived as outside of one’s personal control are less likely to raise expectancies for future reinforcements following successes than those perceived to be within one’s personal control (Rotter, 1966). (p. 97-98)

If a student lacks ability, he/she does not have confidence to persevere in future endeavors. In other words, when the behavior of an individual stems from the person

being self-motivated, there is the likelihood that the behavior would be strengthened. On the other hand, if the motivation is from outside influences rather than the individual, then the likelihood that the behavior would persist is minimized. As stated earlier in this paper, Beach (2014) contended that at-risk students struggle to adapt, work hard, apply themselves to the content of study and use resources to acquire the skills needed for success. Their understanding of school is just to memorize definitions rather than being able to understand and apply concepts or sometimes their unwillingness to do so. They are not self-motivated and thus lack control over what they do and are unable to apply themselves accordingly.

Individual effort, circumstances or situations could influence the outcomes of events in a person's life. According to Wiener (1985) attribution theory embodies locus of causality which is related to locus of control. When an individual's events are a result of their personal effort, they are operating with an internal locus of causality, however, locus of control "measures consistent individual differences" (Rotter, 1966) and locus of causality is "situation specific" and could vary in an individual. Rotter (1954) published his seminal theory *Social Learning and Clinical Psychology*. The underlying principle of his work is that,

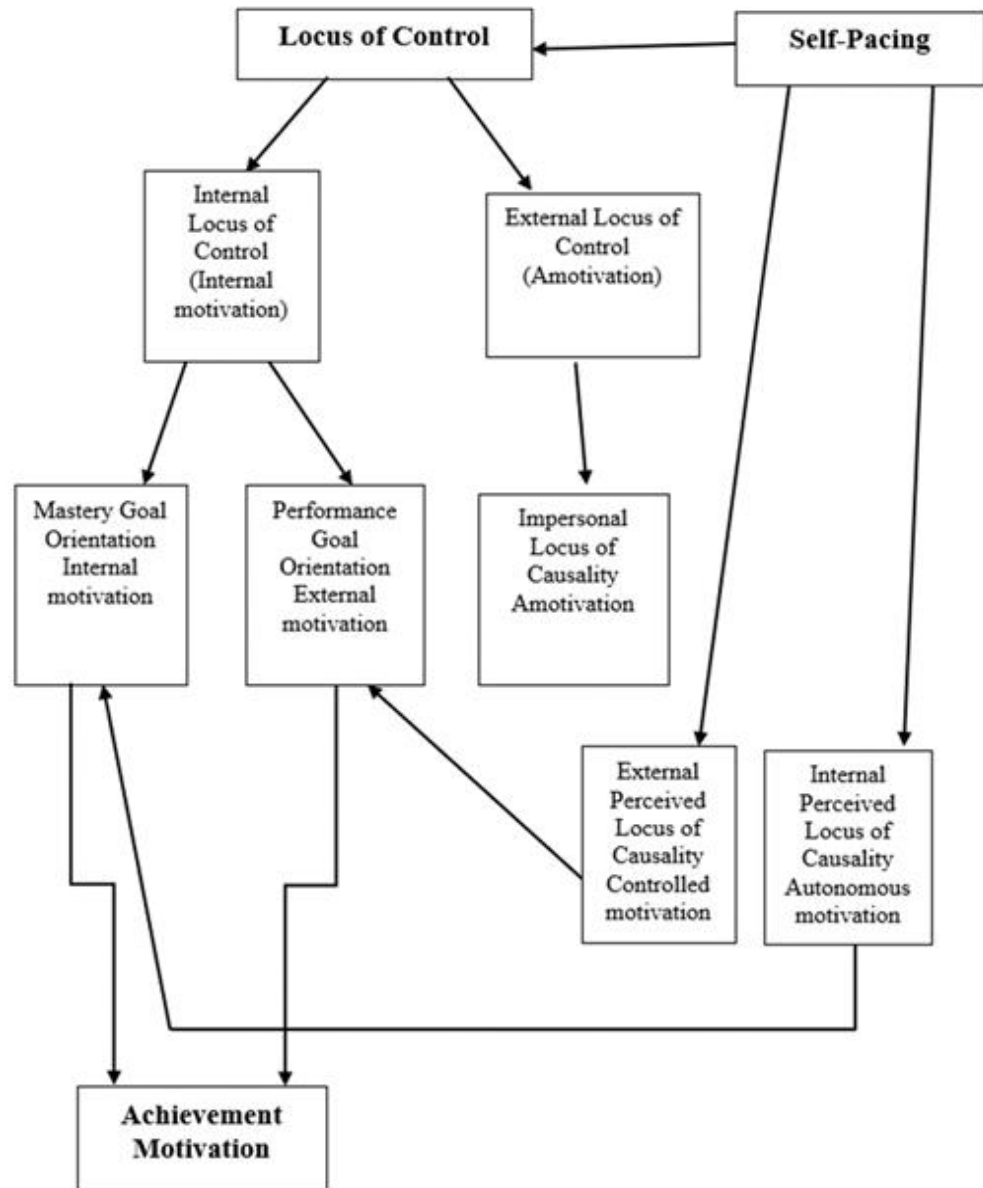
Personality is the interaction between a person and his or her environment and is dependent on a particular individual's learning experiences and life history. His was the first personality theory to comprehensively integrate cognition, in the form of expectancy, with learning and motivation, in the form of reinforcement. Jules's simple yet elegant formula for personality is $BP = f(E \& RV)$: Behavior Potential is a function of Expectancy and Reinforcement Value. (p 546)

An individual's background plays a vital role in who he/she becomes. His/her behavior is a function of the environment from which he/she grows up. When the outcomes of one's action is encouraged or reinforced, the individual internalizes the actions which results in behavior tendencies. The characteristics of the environment become internalized and defines who an individual grows up to be. If one grows up in the midst of gangsters, the individual is likely to grow up to become a gangster. If one grows up in a community where order, discipline and education rules, there is the likelihood that the individual would grow to become responsible and enlightened. As outlined earlier, at-risk students are surrounded by negative circumstances within the home environment and thus their behavior is impacted negatively.

Figure 2.1 is a combination of locus of control, goal theory, locus of causality and a hypothetical impact of self-pacing on achievement motivation of at-risk students.

Figure 2.1

Relationship between Locus of Control, Goal Theory (Orientation) and Locus of Causality and a hypothetical impact of Self-pacing



Rotter's theory on locus of control has similarities to Deci and Ryan (2017) SDT theory on Perceived Locus of Causality. According to Rotter, people who are inclined to internal locus of control, take responsibility for their actions, and those who have an external locus of control, attribute all failures to external forces that are beyond their control. Deci and Ryan on addressing perceived locus of causality, are of the opinion that, people with I-PLOC have a sense of volition/autonomy and those with an E-PLOC are also motivated, the difference though is that the motivation is due to external pressure or compulsion. They go on to say that those with Impersonal Locus of Causality on the other hand feel that they cannot attain desired outcomes and feel a sense of passivity and amotivation which is in line with Rotter's theory on External Locus of Control.

Research on Personalized System of Instruction (PSI)

The Personalized System of Instruction (PSI) is reviewed to identify the effectiveness of the self-paced criterion as an instructional strategy in differentiating instruction for At-Risk students. Grant and Spencer (2003) have described the PSI, also known as the Keller Plan as a method of teaching that many instructors have used from the 1960's till now. The history of PSI begins with Dubin and Taveggia's (1968) book titled, *The Teaching-Learning Paradox: A Comparative Analysis of College Teaching Methods* in which they analyzed results of 74 empirical studies from 1924 to 1965 comparing the lecture and independent study methods of instruction in higher education. They found no differences in the outcome of the methods that were studied and concluded that the methods used in the research did not show any differences in student

performance on final examination. When Dubin and Taveggia's work proved that independent study by students without an instructor could equally help students do well, considerable credence was given to alternative methods of teaching, allowing students to work independently as well as in distance or online education. According to Grant and Spencer (2003), Taveggia's finding was vital since it was proposed by an individual whose position on teaching methods was that no method was superior to the other. Kulik, Kulik and Cohen (1979) concluded from their study that students rated PSI higher than controlled classes. They said that PSI classes were more enjoyable, more demanding, and better in quality in helping students learn than conventional classes. Rather than at-risk students dropping out of school, independent study or self-pacing which has been proven to be an effective alternative method of instruction could be applied.

Features of PSI

PSI has the following defining features; the written word, unit mastery requirement, self-pacing, use of proctors and motivational devices. In a PSI, the content of instruction is presented in written form rather than in a lecture format. The written word consists of a clear outline of what is expected of students, such as a study guide with detailed objectives, policies for good performance and deadline dates among other requirements for the course. The PSI course is divided into smaller portions called units. Students are required to master each unit, pass a quiz/test with a minimum percentage before proceeding to the next unit. Students who fail a quiz are given opportunity to retake a different form of the unit quiz.

Students are allowed to work on different units of the same course at their own pace. Students complete the units at different times depending on their learning preference and the pace at which they master the concepts. According to Grant and Spencer (2003) “Although PSI can be used within conventional academic time units like semesters, PSI works especially well when an entire institution functions on a self-paced basis (e.g. Athabasca University – Canada’s Open University)” (p. 2). The organizational structure of the university should be such that students are allowed to complete courses on their own schedule and at different times during the year because each students’ circumstances differ due to commitment to work, family as well as differences in the pace at which they learn.

There are two main forms of proctors in a PSI, internal and external proctors who help students master the content, give feedback and maintain records of students. Internal proctors are students who are enrolled in the course, have passed the units within the course and assist other students with the content that they have mastered. External proctors are former students who have completed the courses and receive credit for proctoring other students. Although PSI emphasizes on the written word as a means of instruction, occasional lectures is also encouraged to help motivate the students. According to Grant and Spencer (2003) “PSI is an evolving data-driven system, not an ideological model that asserts *priori* definitions about what represents good instruction. The data dissuading teachers from lecturing illustrate that PSI is a model that is subject to alterations in accordance with new data” (p. 2). PSI is a strategy that is flexible and could

be modified depending on available research information to support the need for modification.

Self-pacing has been extensively studied and Ainsworth (1979) sums up the superiority of self-pacing aspect of PSI to conventional methods of teaching by saying, no matter the strategies applied, students can only be successful if they are willing to do independent study. According to Manning et. al., (2010), the possibilities for students to improve is immense if instruction is differentiated to reach all students including the gifted. Students at-risk of dropping out of school cannot be left out of the possibility to improve with differentiated instruction.

PSI and Online Teaching

Pedagogy for online teaching is encroaching fast on all other teaching methods and sooner or later there is going to be a complete overhaul of the teaching profession. There is a need for a new pedagogy for online teaching and learning because the educational needs of the online student differ from the traditional student. PSI strategies provide the educational needs of online students. Fisher and Baird (2005) noted that a key factor in terms of student retention and self-regulation rests on the social bonds formed within the cadre among students both in the United States and around the world. Through e-mail, newsgroups, reflective journaling (blogs), and instant messaging technologies, students are able to support one another in and outside the virtual classroom. There is no limit to where technology can reach and there is no time constraint. The importance of distance learning in education of students cannot be

overemphasized due to its convenience. It can be utilized in the homes, at any time and place and the demand for its use is growing at a fast pace.

Distance learning has become an affordable interactive means of overcoming the constraints of time and distance to reach learners, eliminating traveling, saving cost and sometimes congestion in the classrooms, overcoming diverse kinds of constraints thus creating new learning environments for students as well as instructors. According to Buerck, Malmstrom, and Peppers (2003) distance education has made it possible for students who could not graduate as a result of circumstances such as family or work, now have an opportunity to study at home and at their own pace and graduate. Distance education has several advantages and allows for much work to be accomplished in a lesser time. There is increased efficiency in technology, making distance education easier and more attractive to students (Buerck et al., 2003). They further noted that online and distance learning have become increasingly popular due to PSI with its self-pacing as well as the written word strategy which favors working families by helping them balance course work and personal commitments. At-Risk students can take advantage of the self-pacing schedule of PSI and increase their chances of graduation, taking cognizance of the fact that some students are at-risk because of teenage pregnancy and also, some are pressured to work as a result of the low SES of their parents.

The integration of web-based learning communities and collaborative group assignments into online course design has a positive influence on student retention (Fisher & Baird, 2005). Online courses and use of computer as a pedagogical method of instruction has been widely accepted and integrated into university programs. Fisher and

Baird (2005) conducted a study and found the enrollment and retention for online MA Education Technology Program to be at 90 percent due to the interest that was generated in the program by the instructors. All courses surveyed in this study consisted of roughly 25 students per class. Each of these courses consisted of a 12-week online course, with a one week (mandatory) face-to-face meeting held either at the beginning or midpoint of the course. They concluded by saying that in all the articles reviewed on the use of computer and internet as a pedagogical tool, it is observed that the acceptance and incorporation into the teaching and learning process is well documented. It is also concluded in all research findings that they are equally as effective as any other teaching method. As technology has become more advanced and easier to use, with its acceptance, it is also becoming a major tool of pedagogy.

Self-Regulated Learning is increasing in popularity and has been enhanced by computer-based learning environments (CBLEs). Winters, Greene and Costich (2008) analyzed 33 empirical studies of Self-Regulated Learning (SRL) and CBLEs and addressed these questions: (1) How do learner and task characteristics relate to students' SRL with CBLEs? (2) Can various learning supports or conditions enhance the quality of students' SRL as they learn with CBLEs? (3) What conceptual, theoretical, and methodological issues exist for this growing area of research? They concluded from their studies that SRL is mostly associated with academic achievement than other forms of learning and that SRL can be supported. Self-regulation is found to improve academic achievement and most empirical data supports this trend. They found evidence that students who are more academically successful tend to use more effective strategies when

learning with a CBLE, and that students with high prior knowledge tend to engage in greater instances of planning and monitoring than those with lower prior knowledge. CBLEs can account for some success in student achievement but others cannot cope with CBLEs. With the necessary support, students could achieve academically when they self-regulate their learning and CBLE's provide the needed environment for students to study thus achieving their academic goals.

While traditional approaches in the past preferred learners to act “under order,” a new look at the learner as constructing his or her knowledge has resulted in a change of theoretical concepts. The learner now takes control of his/her own instruction and learning and does so at his/her own pace. Due to the rapid expansion in acceptance of distance learning programs by students and educators alike, educators need to re-evaluate traditional pedagogical strategies and find ways to integrate curriculum, technology, community, and learning in a manner which supports student motivation, self-regulation and retention in virtual learning environments (Fisher & Baird, 2005).

Problems with PSI

Despite the many benefits of PSI, it has some problems associated with its use. From the 1980s, interest in PSI was diminished and many reasons were advanced for that trend. As elaborated earlier in the first chapter, one of the reasons for the diminished interest is that:

“Traditions, traditional values and often very strong interests keep education within the confines of old times (some even see this as the role of education). The

traditions are strong and rigorous and so are the conservative constraints” (Jónasson, 2016, p. 4). Traditions and norms of education are very difficult to change because it is believed that things are done in a certain way and also that education is supposed to keep things the way they are. The inertia of the conventional method of teaching makes it difficult to bring about change in the educational establishment (Sherman, 1992) as well as “the zeitgeist that permeates educational reform” (Buskist, Cush, & DeGrandpre, 1991, p. 215). The spirit of conventional methods of teaching, culture and accepted norms which people are used to, makes it difficult for them to embrace change and try new methods such as PSI. Buskist et. al., allude that PSI was also blocked from courses by administrators because of the belief that lecturers were not actually teaching if they were not standing in front of a classroom. Change process is difficult for educators, parents and policymakers alike because of the notion that there can be no teaching without a teacher being in charge.

Secondly, PSI was implemented in different ways that did not meet the requirements of PSI as was initially developed which made it difficult for it to be accepted. There is the problem of disagreement as to what constitutes a true PSI. Some courses vary from a true prescription of what a PSI is and it is difficult to know at which point a PSI changes to something that looks like it. This makes it difficult to really assess the effectiveness of PSI (Eyre, 2007). PSI is misunderstood or interpreted in different ways by the academic literature (Buskist, Cush, & DeGrandpre, 1991).

Also, it is time consuming in its implementation and according to Ainsworth (1979) the development of study guides, pressure on proctors to give immediate feedback

and the burden of training proctors resulted in a diminishing interest in PSI in the late 1970's in favor of traditional methods (as cited in Eyre, 2007). As a result, PSI courses were ruled out completely (Sherman, 1992) and Eyre (2007) noted that research in PSI had reduced drastically from 1990 to 2006.

According to Shepard and Popp (1976) PSI is presented in a way that allows cheating by students. They could easily master a unit, learn the answers and share with other students thus helping them to pass but not really mastering the content, but just skilled in beating the system. Shepard and Popp also allude that proctors are lenient to students' pleas and sometimes succumb thus accepting ambiguous responses.

Shepard and Popp, summarize the problems in the application of PSI as an alternative educational strategy by saying,

The point is we simply don't know enough about conditions under which PSI succeeds or fails. The fact that it has proven to be a highly desirable educational alternative for some students in some settings does not mean it is always desirable. Research must now turn to finer analysis of the relevant variables both singly and in interactive relationship. (p.298)

There is still a lot to study about self-pacing because of the effect of variables that come into play when PSI is studied. Until a thorough research is undertaken, it would be difficult to draw a line between the point where PSI succeeds or fails. The desirable aspects of PSI make it authentic and a viable option for helping those students who cannot graduate under a traditional education system to achieve their academic goals but the need for further research into the effectiveness of PSI cannot be overemphasized.

Research on Self-Pacing

The review of literature on self-pacing show varied results/conclusions by the researchers. These results could be grouped under the following categories: 1) Those researchers who concluded that students who self-paced outperformed those who used the conventional method of study. 2) Other researchers indicated that there was no difference in the achievement of students who self-paced and those who were enrolled in the conventional method class. 3) A third group of researchers found that students who were enrolled in the conventional method class outperformed those in the self-paced class.

Comparison of Self-Pace to Conventional Method

The review of literature on self-pacing first examines research which concluded that self-paced learners outperform students who enroll in lecture (face-to-face) classes. A study conducted by Ocorr and Osgood (2003) compared a self-paced and a lecture based biochemistry class at the University of Michigan. U of M graduates about 400 students per year in the biology department and considering that the demand was very high, the department over the past few years has offered two different strategies to educate students in the biochemistry course of the department each semester. The self-paced class did not require a lecture, although a one hour lecture class is offered weekly as a motivation. Overall, about 10% of the students do attend this class. The study was conducted over three semesters and was concluded that the overall performance was the same in two of the semesters studied but the self-paced PSI students performed better

than the students in the lecture based course in one of the three semesters. Ocorr and Osgood concluded that the self-paced “format works as well as or better” than the lecture based format (p. 312). Self-pacing works very well for advanced students as exemplified in the biochemistry class.

Learners who control their study time seem to have an edge over those who do not. Two experiments were conducted by Tullis and Benjamin (2011) on the effect of learning a list of words by self-pacing and later recalling. In the first experiment, the memory of students who choose their own allocation of study time was compared to those who spend the same amount of time as self-pacers but did not control their study schedule. In the second, the method used was the same as the first, but the presentation times was based on the difficulty level of the items. (Tullis & Benjamin, 2011). In both Experiments 1 and 2, learners who controlled their study time was compared to learners who viewed the items in a standard amount of time. It was observed that learners with control of study-time significantly outperformed subjects with no control. In Experiment 2, the participants in the third study group (normative-allotment subjects) performed significantly worse than participants in the self-paced condition and the control subjects.

The advantage of self-pacing was apparent only in subjects who utilized a discrepancy reduction strategy—that is, who allocated more study time to normatively difficult items. Self-pacing can improve memory performance, but only when appropriate allocation strategies are used. (p. 109)

Self-pacing can impact memory positively due to the many benefits; setting one’s own pace removes anxiety, also allotting time to difficult items correctly also enhances

the benefits of self-pacing. Self-pacing could be beneficial but requires planning and strategic application to maximize its benefits.

Impact of Self-Pacing on Achievement Motivation of At-Risk Students.

Alfassi (2014) conducted a comparative study of the effectiveness of two instructional methods; a learner centered structured academic program which is akin to self-pacing and a conventional remedial instruction and curricula that would improve their academic achievement and self-efficacy of at-risk students. She explained that the structured academic program is a teaching strategy developed to help students who have difficulty adjusting to the regular school system and that the program is based on the belief that learning challenges are brought about as a result of obstacles rather than absence of ability on the part of the student. According to Alfassi (2014) the results indicated that,

Students belonging to the experimental group (structured program) scored an average of 70% on the standardized reading comprehension measure which is equivalent to an 8th grade level of reading comprehension. The students from the control group (conventional program) scored a failing grade of 50% which is equivalent to a 4th grade level of reading comprehension. These results suggest that a structured academic program may yield significantly better achievement results than conventional instruction. (p. 37-38)

The results of the study by Alfassi indicated that students exposed to self-paced instruction demonstrated a higher motivational orientation than those in a conventional program. She also noted that self-efficacy contributed to academic mastery which was verified by experimental studies and her studies also found that at-risk students who took part in conventional remedial instruction failed in achievement tests. Findings suggest

that applying a program geared to foster both academic competence and confidence provides a beneficial synergy to the student” (p. 28). The structured program improved self-efficacy as well as an internal motivational orientation beneficial to students at-risk.

One major cause of underachievement of at-risk students is, the lack of motivation to pursue academic success. Strategies that would motivate them, raise the level of confidence in themselves should be sought after to help them succeed. Schools cannot do anything about students’ backgrounds, but they can help students stay in school or dropout of school depending on their policies and practices (Janosz, Le Blanc, Boulerice & Tremblay, 2000; Rumberger, 1995). The research indicates that at-risk students who do not perform well academically in a regular school system do well in an alternative school setting where they were exposed to the structured program (self-paced). Factors such as learning under order, without taking their learning preferences and their pace of learning into account might directly affect at-risk student’s self-efficacy and academic achievement. There is no specific outcome from the literature reviewed because the outcome of self-paced courses is impacted by several variables such as subject matter, caliber of student, prior knowledge and other factors as goal orientation; performance and learning goal orientations.

The research on self-paced courses has varying outcomes depending on the circumstances or variables under consideration, as supported by the preceding literature. Price (2015) defined at-risk student as any student that meets at least two of the following criteria; has a history of abuse or neglect, falls below grade level in mathematics and English, has a teenage parent or pregnant teenager, qualifies for free or reduced price

lunch, has atypical behavior or poor attendance, has family history of incarceration, failure or substance abuse. There is a high probability that the end result for the at-risk student will be negative if the circumstances are allowed to continue without the necessary interventions. As Beach (2014) rightly defines, the circumstances of at-risk students are such that their needs for educational success are not met which results in academic underachievement and in many instances end in failure or drop out from school.

During my years of teaching in urban public schools, I found that the level of motivation of many students was very low, their test taking skills was very poor, and I found these to be major factors hindering the academic achievement of at-risk students and a consequence of school drop-out. My research will therefore examine the impact of self-paced courses on the locus of control and how this would impact their test taking and academic achievement of at-risk-students as well as the impact of self-pacing on school dropout rate.

As discussed earlier in this paper, Alfassi's study indicates that a structured academic program akin to self-pacing improves student's academic achievement as well as contributing to "a higher internal motivational orientation" (p. 28). Thus the student is energized to pursue his/her academic goals in a more positive way when they self-pace their instruction. The study also supports Bandura's (1977, 1997) social cognitive theory which contends that improving student self-efficacy through authentic mastery experiences helps to increase achievement.

Research Comparing Self-Paced, Lecture and Instructor-Paced Courses.

The following review examines researchers who concluded that there were no significant differences in the outcome of both self-paced and lecture courses in student achievement as well as in instructor-paced courses.

Self-Paced compared to Instructor-Paced PSI

Students in both self-paced and instructor-paced courses have had setbacks but these have not impacted the achievement of students. A study was conducted by Morris, Surber and Bijou (1978) to compare students on,

measures of course achievement and evaluations and a 9-month content retention test...Results show that even though that the self-paced group procrastinated while the instructor-paced group did not, both groups scored similarly on pre-, post-, and retention tests and were equally satisfied with the course. Moreover, no differences were found in the number of units completed, final grade distributions, or course withdrawal rates. (p. 224)

The results show that there was no difference between the withdrawal rates of both groups. The two forms of instruction were best suited to the students to whom it was assigned. Students who receive the right counseling and assigned to the courses suited to their learning preferences will perform well on tests. The results indicate that more than 90% from both groups received an A grade.

Research suggests that students who sign up for self-paced courses do not differ in their academic performance from students who sign up for instructor-paced courses (Glick & Semb, 1978). One of the major bottlenecks of self-paced courses is procrastination but it is not found to impact performance of students negatively (Lloyd &

Zylla, 1981). Lloyd and Zylla also allude that an alternative explanation could be that students who put off tests till the final weeks get low grades both in self-paced courses and instructor-paced courses which is visible in the many tests that are taken during the last week of semester, the scallop effect whilst this is not visible in instructor-paced courses where students delay taking unit tests, and earn zero and lose the opportunity to take the tests later. The results indicate that instructor paced courses do not have a safety net of a retake of failed tests which may not be a motivation for at-risk students. This disadvantage will not serve the purpose of at-risk students who have experienced failure in a conventional school system. Self-paced courses should be planned with at-risk students in mind.

Self-Paced Versus Lecture (Face-to-Face) Instruction

Several factors have been found to impact performance of students in a mathematics course. Research was conducted by Ironsmith, Marva, Harju and Eppler (2003) to study the performance of students in a remedial college mathematics course. The study was conducted to examine the impact of a) two teaching approaches b) the types of achievement motivation orientation and c) attitudes toward mathematics in a remedial college mathematics class. They assessed the impact of a self-paced and lecture format, achievement goal orientation and mathematics anxiety on achievement. This study sought to address the question as to how achievement orientation would affect students' performance in self-paced and lecture sections of remedial college mathematics. As previous research has found out, students having learning goals received higher

grades than the other goal orientation groups. Students having high learning goals were the group which achieved a B average on the final exam as well as their final course grade. The students who were low on learning as well as performance goals earned the minimum grades overall, an average of D. The results indicate that students who were oriented towards learning goals over performance goals obtained better grades in the lecture format classes and were also less anxious. Mathematics anxiety and confidence also had an impact on test grades (Ironsmith et al., 2003). These results are in line with those of Eppler and Harju (1997) with the exception that they observed students high in learning goals being equivalent to students who endorsed both learning and performance goals in academic achievement.

Learning and performance goal orientations have a direct correlation to the achievement of students in a remedial mathematics class. Ironsmith et. al. (2003) wrote,

In contrast, the mathematics students who endorsed both learning and performance goals did not perform as well as those students who were high in learning goals only. Concern about performance may have a detrimental effect on performance in remedial mathematics courses regardless of whether it is accompanied by concern for mastering the material. This concern for performance may take the form of mathematics anxiety, which we found to be related to performance goals. Students may be more likely to experience "math anxiety" than anxiety about other academic endeavors and thus it may explain why performance goals are detrimental to mathematics grades rather than to a students' overall grade point average. (p. 282)

Academic performance of students has a direct correlation with their achievement goal orientation. In addition to the influence of goal orientation, other variables also affect student performance such as anxiety and the subject matter. Specifically, the researchers found that performance goal orientation causes anxiety of students in a mathematics

remedial class but may not cause anxiety in other subject matter. Ironsmith et. al., (2003) concluded that learning goal students did not only perform better but were also less anxious about mathematics than performance goal oriented students. In spite of the fact that the classes had different approach to teaching, the final course grades were similar which is contrary to earlier research (Canelos & Ozbeki, 1983; Eniaiyaju, 1983) which saw an advantage for self-paced instruction. Earlier researchers did not look at remedial mathematics classes specifically and this could be one reason for the differences in results. This research focused on achievement orientation in a remedial mathematics class and found most of the results in contrast with other research finding on self-paced instruction due to the many variables that were also accounted for.

The mastery criteria and immediate feedback are vital ingredients in the success of a PSI course. Ironsmith, et al. (2003) explained further that the self-paced course probably lacked the mastery-oriented aspect of PSI which required students to attain a certain minimum score before proceeding to the next level. According to Buskist, Cush, & DeGrandpre (1991), the mastery criterion and immediate feedback are the variables most important in the success of self-paced courses. They went on to say that, self-pacing, peer tutors, optional lectures in themselves do not appear to be important variables to the success of students in PSI courses. The results indicate that the degree of emphasis and application of the various components of a PSI program will have an impact on the outcome of performance in a self-paced course.

Achievement goal orientation of students plays a major role in determining the success of children. A study of this model was conducted by Diener and Dweck (1978,

1980) on children by giving them easy problems followed by difficult problems to solve. All the children were able to solve the easy problems but children who exhibited performance orientation blamed their inability to solve the difficult questions on their lack of ability. Children who exhibited “mastery-oriented” responses tried other strategies due to the increased motivation from the challenge of the difficult questions. Dweck and Leggett (1988) described two forms of achievement goals that influence students’ academic performance; Performance goals has to do with the desire to achieve good grades and social approval. Students who have this kind of orientation are typically interested in the outcome more than with the actual process of learning and are likely to subscribe to an entity theory of intelligence, which postulates that intelligence is a fixed attribute. They mostly do better on easier tasks where a positive evaluation can be achieved but when confronted with difficult tasks, students with performance goals usually become discouraged and give up, blaming their failure on a lack of ability. In contrast, Learning-goal oriented students are interested in mastering new material and subscribe to the incremental theory that intelligence is malleable. These students display “mastery oriented” behavior, display more perseverance on difficult tasks, trying different strategies and attributing failure to a need to put in more effort rather than to a lack of ability (Heyman & Dweck, 1992). The results indicate that there is a correlation between learning goal orientation and academic achievement. It is imperative that strategies that will drive students toward a learning goal orientation are sought after.

Lecture (Face-To-Face) Courses Preferred Over Self-Paced Courses

The results of the following research show a positive outcome in the lecture (face-to-face) courses as opposed to the self-paced courses. A study by Ainsworth (1979) reported that the performance of students in a self-paced course in Introductory Psychology was disappointing, even though the grading system was manipulated to lower the failure rate. When some students who obtained F grades were interviewed, they said that they “needed lectures” to help them comprehend the text and also that the workload was heavy (p.43). It was initially thought that the students did not understand the procedures for the PSI so the course was rescheduled for the next semester with the necessary precautions taken. The results of the tests were still similar to the previous semester – about 41% of the class obtaining grade F. Ainsworth found that performance in the self-paced courses was “remarkably inferior” to the lecture classes (p. 44). Although the course structure was a bit different from Keller’s PSI, many aspects were included in the research as much as possible. It was concluded that the students were the cause of the failure, that “a significant number of undergraduates are not competent students-that they cannot read, write, speak, calculate, or study well enough to do creditable work at the freshmen level” (p. 44). Students who perform poorly in a self-paced course have limitations. They have poor background knowledge and are low achievers. They are not well prepared to do college work and lack the proper orientation to succeed at the college level.

Ainsworth identifies two categories of students who are capable of taking self-paced courses: 1) Those who are gifted and have the natural capacity to excel. 2) Those

students whose work is good but not outstanding. These students perform well academically regardless of the teaching methods to which they are subjected. Ainsworth (1979) alludes that it is these who have the capacity to take self-paced courses and that such suggestions have been made by other researchers. Henneberry (1976) also made the following observation, "In the numerous studies indicating the superiority of the personalized system of instruction . . . if . . . poorer, mediocre students were separately compared, the results might have indicated that such students do no better, or maybe worse, in a self-paced course" (p. 180). There are several factors which affect the performance of students who enroll in self-paced courses. Low achievers are not well suited to do self-paced courses because they perform poorly. High achievers tend to perform well irrespective of the course structure to which they are exposed, therefore the caliber of student is very critical when students are being assigned to self-paced courses. Ainsworth suggests that students with mediocre performance may require courses with more structure. At-risk students can self-pace, but modifications and support are necessary to address their specific needs.

Benefits of Self-Paced PSI

There are several reasons why self-paced courses are preferred over conventional courses. Ainsworth (1979) described the advantages of PSI as being derived from; student self-pacing, frequent testing over relatively short assignments, feedback on performance being immediately available as well as the use of student proctors/assistants. Also, the freedom from regular class attendance, which is so important to schedule

changes of students who work as well as adult student schedules. It is advantageous to part-time as well as full-time students who have families to whom regular class attendance would be difficult. Ainsworth alludes that many students have taken advantage of the flexibility that PSI offers and have graduated from colleges and pursued their careers which would have been impossible with regular class attendance. Ainsworth also noted that students who could have dropped out of conventional courses are accommodated with PSI courses due to its flexibility. The written word aspect of PSI makes this method of teaching and learning appropriate for distance learning. Due to this advantage, one does not have to be in a specific geographical location to be able to do course work. Students, including adult learners who have work and family, are able to adapt their studies to other personal life demands due to the self-pacing aspect of PSI. The flexibility offered by self-paced PSI is important to struggling students, especially those who work to support their families.

One notable benefit derived from PSI is distance education that makes it possible for many people to graduate who could not have done so under normal circumstances. According to Grant & Spencer (2003) the mastery-learning aspect of PSI courses provides a safety net for distance education because students are given the opportunity to retake a quiz if they do not perform well the first time. The safety net aspect of PSI helps adult and distance education learners alleviate anxiety due to fear of failure. Added to this advantage is that disabled learners are able to adapt to self-paced courses due to the inconveniences they face (Brothen, Wambach & Hansen, 2002). They have an opportunity to achieve academically in spite of their physical handicaps.

While traditional approaches in the past preferred learners to act “under order,” a new look at the learner as constructing his or her knowledge has resulted in a change of theoretical concepts. The learner now takes control of his/her own instruction and learning and does so at his/her own pace. One other advantage of the self-paced strategy is, it can be tailored in multiple ways to meet the diverse needs of at-risk students who struggle in the regular education classroom.

Bottlenecks of Self-Paced PSI

According to Reiser and Sullivan (1977), the withdrawal rate from the self-paced group was higher than in an instructor-paced group, however, there was no significant difference between the two groups in attitudes or in their academic achievement. A major problem reported from the research is the high withdrawal rate of students in a PSI course. The fact that many students do not pace themselves effectively has been cited as the primary reason for the high rates of withdrawal from PSI courses (Reiser & Sullivan, 1977). They went on to say that other reasons were that students do not maintain a steady quiz-taking pace and also poor performance on the quizzes. Also, the perception that self-paced would be preferred by students was not substantiated by their study. There was very little difference in the attitudes of both groups of the study towards their specific study approach which was in line with other findings. They concluded that overall, the withdrawal rates in PSI courses was much higher than in lecture-discussion courses and that it is necessary to lower the withdrawal rates of PSI courses to make it more effective.

Students should be counseled when decisions are being made as to whether to take the instructor paced or the self-paced option of PSI courses due to the high rate of withdrawal from a self-paced course. Reiser and Sullivan also noted that student attitudes tend to favor the use of PSI rather than the lecture format. Students in an instructor paced PSI course perform at a steadier pace than students enrolled in a self-paced PSI course. It would be advantageous for students to enroll in an instructor paced PSI course if that produces a steadier quiz taking behavior and thus reduce the withdrawal rate as the study indicates, “then perhaps instructor-pacing should be employed more frequently in PSI courses” (p. 11). Students who are not disciplined should opt for instructor-paced courses to serve as a form of monitoring to help them stay on track. There seem to be preference for self-paced courses but some students are not capable of self-pacing due to a lack of discipline and thus opt for instructor paced PSI.

The results of a research might be skewed due to the impact of an artifact on the design. Robin (1976) makes a similar argument in his review of PSI courses that, the lack of difference in the scores of a final examination of students in a self-paced and that of instructor-paced might be due to the high withdrawal rate from the self-paced learners. Although there was no significant difference in the mean final score in the two treatment groups of study by Reiser and Sullivan, they argue that the final result might have been due to an artifact of the experimental design because many students who did not complete the quizzes withdrew from the self-paced group. Had all the students taken the final examination, the instructor-paced group would have scored higher than the self-paced

group. Self-pacing with some instructor guidance might reduce the rate of withdrawal from self-paced courses.

Self-paced students who are not well disciplined procrastinate on their test taking. Lloyd and Zylla (1981) observed another issue of importance to be the problem of procrastination on the part of self-paced learners. In the absence of externally imposed pace, self-paced students procrastinate in their quiz-taking behavior as opposed to instructor-paced group who take their quizzes at a study pace. They also allude to students not taking advantage of the flexibility of test scheduling in self-pacing and that one to two-fifths of students procrastinate on their pacing and wait till the last week of the semester before taking their tests. Emphasis on motivational aspect of PSI may be appropriate for student motivation. Another bottleneck is the inclination to spend more time on difficult items which is found to be unwise, because certain conditions may result in a low rate of return (Metcalf & Kornell, 2003). When more time is devoted to difficult items at the expense of easy- and medium-difficulty items, overall achievement could be adversely impacted (Tullis & Benjamin, 2010).

Winters, Greene and Costich (2008) conducted an investigation using the following; Electronic databases - Psych Info and ERIC to search for empirical articles with key words; self-regulate along with computer, hypermedia and multimedia. The aim was to locate research that identified as self-regulated learning, in an attempt to capture studies for which self-regulated learning (SRL) was a main construct of interest. They found that other learner characteristics as goal orientation also affected students' SRL to a certain degree, but did not affect learning outcomes in the studies they had reviewed.

Providing students with a high amount of learner control works well for students who are highly self-regulated and not so well for those who are not. They may provide self-regulation for each other as they learn collaboratively or in groups, but this does not always yield positive results and may be tempered by factors such as the students' prior knowledge. It is of vital importance that students are counseled when being assigned or recommended for CBLE because they may be at a disadvantage and may not achieve academically due to their individual learning preferences and abilities.

Student self-regulation is complex in its application and calls for a monitoring process to be put in place. Winters et. al., (2008) also found that adaptive scaffolding in the form of a tutor appears to support many areas of students' SRL as they learn within a CBLE, as does training students to utilize particular processes and strategies before they engage in a task. SRL has its own disadvantages due to its cyclical nature. It is a recursive, and active process encompassing motivation, behavior, and context, and as such, very challenging to capture in its entirety. It requires much discipline from the students and therefore can be stressful in its use. According to Metcalf (2009),

Learning can be enhanced through successful implementation of self-guided study time allocation. As Metcalfe (2009) argues, there are two necessary components for control of study to be helpful: monitoring must be accurate, and appropriate choices must be implemented during study...the effectiveness of self-regulation faces a major bottleneck in the accuracy of memory monitoring. Giving learners control over study allows biases and inaccuracies in metacognitive monitoring to influence performance negatively by leading learners to make suboptimal or counterproductive decisions while controlling their study. (as cited by Tullis & Benjamin, 2010, p. 110-117)

A self-regulated student requires discipline to be successful, as well as making the right decisions. Further research is needed in this area to bolster the trends and relations

identified in this review. Reiser and Sullivan offer suggestions for improvement of PSI courses: a) Students who are under achieving meet occasionally with staff for instruction, counseling as well as to review quizzes with students. b) Arrange pacing schedules; one method would be for students to arrange their own schedules with the instructor, or arrange a group pacing schedule with the instructor. Research in this area would contribute to finding the most appropriate practice for PSI courses. Wiggins and McTighe (2005) also wrote,

Teaching, on its own, never causes learning. Only successful attempts by the learner to learn cause learning. Achievement is the result of the learner successfully making sense of the teaching... To have taught well is not to have used a great set of techniques or given the learner some words to give back, but to have caused understanding through words, activities, tools, guided reflection, the learner's efforts, and feedback. It is a complex interactive achievement, not a one-way set of skills. (p. 228)

It is imperative that students work hard on their own by using the tools and instruction made available to them by their teachers and make sense of the information. No amount of teaching will result in learning if the student does not put in his/her own effort to study the concepts taught. The teacher's effort alone is not enough to make a student succeed unless he/she makes sense of the teaching through his/her effort. It is only then that the student can achieve academically. Interventions that will help motivate students to achieve academically should be researched to turn these negative trends in urban schools around, thus helping at-risk students remain in school and graduate.

Implications for this Study

There are several bottlenecks in the implementation of self-paced learning, but in all, this form of instruction is worth exploring further. The research indicates that it is a preferred strategy due to its positive impact on student achievement. Available literature provides clear preference of PSI over lecture courses but the bottlenecks of self-paced PSI make it less preferred to instructor-paced PSI. For those students who are at-risk of dropping out of school, self-paced PSI courses should be recommended due to its adaptability and flexibility. For example, emphasis could be placed on the mastery unit, occasional lectures and other modifications such as setting the pace with instructor assistance. Another important benefit is the safety net which PSI courses provide. Students have the opportunity to retake courses rather than drop out. According to Grant & Spencer (2003) PSI can be modified by distance education instructors due to its flexibility and adaptiveness to accommodate the needs of students. At-risk students should opt for self-paced courses if traditional courses did not meet their needs.

The low motivation of students within the urban public school system is one of the major causes of the achievement gap between the suburban and urban students. My research seeks to focus on students in an alternative education institution who were at-risk for school dropout due to lack of motivation. As I worked in an alternative education institution, many of the students had expressed that they opted for the alternative institution because they preferred the self-pacing aspect of the curriculum. The fact that they are able to work at their own pace as opposed to the regular school environment where there is structured curriculum was contributing in a positive way towards their

education. Although there is substantial research on self-pacing and achievement motivation, research on how self-pacing impacts motivation/internal locus of control, test taking, and school dropout is limited. This research will investigate the impact of self-pacing, a form of instructional strategy on at-risk students' locus of control, test taking habits, and school dropout in an alternative school setting. Rather than at-risk students dropping out of school and becoming a liability to society, it is vital that instruction is differentiated to meet their specific needs.

CHAPTER THREE

METHODS

Research Design

The purpose of this study was to explore the possibility of mitigating school drop out of at-risk students by self-pacing of curriculum in an alternative education institution. To this end, I sought to answer the following questions which were addressed in Chapter One:

- (1) Is self-pacing related to at-risk student internal locus of control?
- (2) Is the use of self-pacing related to experience of test-taking for at-risk students?
- (3) Is there a relationship between at-risk students' experience with self-pacing and their feelings about school dropout?

I used a qualitative instrument to investigate the impact of self-paced instruction on at-risk student locus of control. My research used an ex post facto approach.

According to Simon and Goes (2013),

Ex post facto research is ideal for conducting social research when is not possible or acceptable to manipulate the characteristics of human participants. It is a substitute for true experimental research and can be used to test hypothesis about cause-and-effect or correlational relationships, where it is not practical or ethical to apply a true experimental, or even a quasi-experimental, design. (p. 1)

Ex post facto research enables the researcher to study the relationships of variables without altering them. My study of the impact of self-paced curriculum on at-risk student locus of control did not allow for manipulation of variables. I did not have the capacity to

control the program vis-à-vis self-paced curriculum and therefore ex post facto design was best suited for my research. I examined the effects of the program on a subsequent outcome with the anticipation of “establishing a causal or correlational link between them” (Simon & Goes, 2013, p. 2). Kerlinger and Rint (1986) explained that in the context of social science research an ex post facto investigation seeks to reveal possible relationships by observing an existing condition or state of affairs and searching back in time for plausible contributing factors. The research therefore, sought to explore the possible relationships between at-risk students’ motivation in the alternative education environment to achieve academically as a result of the new program of interventions which the school offers.

The impact of self-pacing on the locus of control of at-risk students in an alternative institution cannot be conceptualized just by speaking to or interviewing only students, therefore, I interviewed other stakeholders in the endeavor to educate at-risk students who have dropped out/expelled from regular schools to help them graduate from high school. To this end, I interviewed administrators and teachers as well as students to investigate the relationships that exists between students’ use of self-pacing and their locus of control.

The current coronavirus pandemic posed several challenges to the use of a survey questionnaire or face-to-face contact with students, teachers, and administrators for several reasons, including the fact that schools were closed and there was social distancing and restrictions on the number of crowds. In addition, students and teachers at the time were quite absorbed in the challenges of the pandemic, making it harder than

usual to conduct research. All these factors made it impossible for students and teachers to come together for any meaningful instruction to take place. For this reason, I opted to collect data through Telephone Interviews, which enabled me to identify and reach participants irrespective of their location.

Conducting a telephone interview is however not without disadvantages. In 2010, research conducted by Ekholm, O., et. al., comparing face-to-face interview with telephone interviews found the following “The comparison between the two interview modes indicated that the level of non-response was higher in telephone interviews than in the face-to-face interviews, whereas the non-response patterns were similar, although there are some differences” (p. 703). The results of the research indicate that it was easier for participants to respond to face-to-face interviews than it was for telephone interviews.

Another disadvantage is the absence of body language in a telephone interview. According to Creswell (2012), “the researcher cannot see any nonverbal communication on the part of the participant, and people often dislike telephone contacts because of their prior personal experiences with calls from survey firms asking for information” (p. 385). Since there is no physical contact, researchers are not able to observe nonverbal cues during telephone interviews. Also, due to negative experiences with surveys in the past, some might have developed a dislike for telephone interviews. Creswell goes on to say that;

- one-on-one interviews take a lot of time and expenditure is very high as opposed to survey where one could reach many respondents all at the same time.
- reports are filtered due to summarized information by researcher.

- participants may provide information that researcher wants to hear
- Researcher may encounter problems with recording devices.

In spite of the disadvantages outlined, Creswell outlines several advantages of telephone interviews;

- Has a huge advantage of the researcher being able to sample or reach people irrespective of their geographical location
- Provides useful information even when researcher cannot observe participant physically
- Allows participant to provide detailed personal information
- Interviewer has control over information because researcher can ask specific questions to elicit information (Creswell, 2012).

Telephone interviews provided an opportunity for me to overcome several bottlenecks that stood in the way of my research such as challenges due to COVID as well as cost of travel and access/availability of participants.

Participants and Sampling

The population for my study were students characterized as at-risk who attend urban alternative education institutions, along with their teachers and administrators. My sampling preference was purposeful sampling which helped me to study the impact of curriculum; self-pacing on at-risk student's locus of control. According to Patton (1990), the standard used in identifying participants is whether they are "information rich". The site and participants provided the right environment and the interviewees for my research.

Sample was drawn from the entire spectrum of the school's population, administration, teaching staff and students. Specifically, I used maximal variation sampling to develop perspectives of students, teachers and administration (Creswell, 2012). This approach helped me obtain a wider spectrum of opinions from all stakeholders about their experience with self-pacing which made me gain a deeper insight of the impact of self-pacing on student locus of control, test taking preparedness and graduation rate. Altogether, twelve interviews were conducted.

Student Participants

My target population was from a Michigan school district and my sample was drawn from at-risk students, in the southeastern school district of Michigan. The age of student participants ranged from 16 years and above with no gender preferences. The age group ensured that students had some level of maturity and used the alternative school route for some reasonable amount of time; an average period of six months. The amount of time spent in the alternative institution enabled the students to have enough time to be acclimatized to the alternative school setting to have the full impact of self-pacing on their locus of control. The maturity of my sample ensured that they could retrospectively make a comparison of their self-paced curriculum with their previous experience in a traditional school setting where an instructor controlled the pace of curriculum. My sample was drawn randomly from an Alternative institution in the southeastern district of Michigan by invitation to participate in research with a monetary reward of 50 dollars per student to serve as motivation to participate.

The students had an average of 8.9 months to complete their diploma. All interviews were conducted over the phone with the exception of one student who was interviewed face-to-face. A recording device was used to record interviews. All interviews were done within three to four weeks.

All the students interviewed were African Americans. Out of the seven students interviewed, five were males and two were females. The ages of students ranged from 16 to 21 years with an average age of 18.4 years. The students mostly lived with one parent and a stepparent, some were self-supporting, one student lived with the mother and only one lived with Mother and Father. All students were either eleventh graders or twelfth graders, and one was a student tutor. The students had between five to twelve credits to complete their diploma and had an average GPA of 3.35. Their GPA was an average of 2.83 before they enrolled at the alternative school. Table 3.1 summarizes the demographics of all students who participated in the interviews.

Table 3.1
Demographics of the Student Participants

Characteristic	Sample
Race	African American
Gender	Five Males, Two Females
Grade Level	11 Th and 12 Th Grade
Age Range	Between 16 years to 21 years with an average of 18.4 years
Average GPA at Former School	2.83
Average GPA at Alternative School	3.35
Credits	Students had between 5 credits to 12 credits to complete

Teacher Participants

Teachers in the same alternative school were also identified and interviewed over the phone. Three teachers were interviewed altogether: two of them were female teachers and one male teacher. Both female teachers were Caucasian, and the male teacher was African American. They were also rewarded for participating in the research.

The teachers were certified in History, Administration, English Language, Health and Physical Education. Altogether, they had an average of nine years' experience teaching at the alternative School. Teachers had an average of thirteen years of teaching experience in a traditional school setting.

Administrator Participants

After interviewing students and teachers, two administrators were identified and also interviewed. Both administrators were males, one Caucasian and the other African American. On average, the two administrators had nine years' experience working in an alternative school, and an average of eleven years' experience working in the traditional school setting.

Instruments and Measures

I used an interview protocol as instrument to conduct my interviews. The first part of the interview protocol aimed at obtaining the demographic information of participants to give a general view of the population that I was interviewing. The second set of questions aimed at investigating the impact of self-paced curriculum on the locus of control, school drop out and test taking of at-risk students. The final set of questions aimed at finding information from teachers and administrators about their thoughts on the impact of self-paced curriculum on students' locus of control and school dropout. Interviews were conducted with self-designed interview protocols to help in organization of the information. The interview protocols were designed with open-ended questions to collect data for the research. Unlike quantitative study, I designed the interview protocol by following the process suggested by Creswell (2012), on 'Development and Design of an Interview Protocol' (p. 225 – 227).

Altogether, I interviewed seven students and five staff members comprising three teachers and two administrators, a total of twelve interviewees. Participants were made to

complete an informed consent form granting permission to be interviewed. Interviews were audiotaped after which information was transcribed into words for analysis.

I investigated at-risk students in an alternative institution to determine the impact of self-pacing of curriculum on their locus of control. For my investigation, I used semi structured interview protocols (Appendix A). In addition to that, I investigated their feelings about school dropouts. The students also answered questions retrospectively, on their previous experience with a traditional school system. These questions helped me determine if there was a relationship between self-paced system/non-self-paced system and their locus of control.

I compiled a total of 16 interview questions: questions on locus of control (3 items), school dropout (2 items), experience with self-pacing (2 items), demographic or background (8 items) and a general question (1 item). I conducted a pilot study to ascertain the effectiveness of my interview questions; the clarity of the open-ended questions, spelling, and questions devoid of ambiguities to eliminate a major disadvantage of respondents misunderstanding questions and not responding to interview questions. The items identified in Appendix A were not limited to only those items, sometimes, I veered off the questions a little bit. For example, once I asked a student a question like, "On a scale of 1 to 5, how would you rate your experience with Regular school and Alternative School? Where 1 is Not Good and 5 is Very Good. A student gave 5 to Alternative school and 1 to Regular School. Teachers and administrators were asked to respond to a total of four questions covering: locus of control, school dropout and a general question.

Data Collection Procedures

Within the southeastern Michigan school district, there are quite a number of alternative institutions. I sought permission to conduct my interviews in a school by writing a formal letter to the head of the institution to ask permission to conduct interviews (Appendix B). I had the privilege of having received a positive response from the Superintendent of the institution to conduct my interviews. The interviews were conducted over the phone during the Fall and Winter seasons of 2021 and 2022.

I had the privilege of having the vice principal as a gatekeeper. He identified the students who were interested in taking the interviews. Students who were under 18 years of age were given consent forms for parents to fill out and sign allowing their children to be interviewed.

I started the interviews by explaining the purpose of the study to participants, and the amount of time interviews would take to complete and the use to which results would be put. Due to the current COVID-19 pandemic, with its concomitant stress level, I did not go beyond 30 minutes interviewing student participants as well as for teachers and administrators.

A major advantage in telephone interview research is that it is relatively cheaper because I was able to cover all my participants within one month without having to make trips to the site/location. Follow up interviews became necessary depending on the outcome of interviews where clarifications on some issues was sometimes needed.

Data Analysis

According to Creswell, there are five steps in analyzing and interpreting qualitative data:

- i. The process begins with collecting the data.
- ii. Data collection is followed by a transcription of audiotapes from interviews.
- iii. The data is studied to obtain a general sense of data.
- iv. Data is coded and collapsed into themes of the central phenomenon.
- v. Themes are summarized and comparison made with existing literature by researchers (Creswell, 2012, p. 237).

The interviews were followed by transcriptions of recorded audio. Each interviewee was assigned a code ranging from 001 to 012 for purposes of anonymity. After the transcriptions were completed, interviewer proceeded to code the transcripts. Transcripts were first divided into segments and the segments were then condensed/combined into about 30 codes. The overlapping codes were reduced into fewer codes and finally collapsed/aggregated into seven themes.

After summarizing all the themes, those that answered the research questions were identified. My research investigated two main variables namely, self-pacing and locus of control to determine how they are related. The data provided me with information about the background of the students, as well as enabled me to explore the student's use of self-paced curriculum and the impact on their locus of control as opposed to their locus of control in a teacher-controlled coursework. The data also helped me

determine the use of self-paced curriculum by students and their feelings about its impact on their test taking ability as well as how school dropout is impacted.

Table 3.2

Participants responses provide answers to research questions.

The table below is a compilation of participants who responded to specific research questions which directly or indirectly provided answers to questions.

<p style="text-align: center;">Question 1</p> <p>Is self-pacing related to at-risk student internal locus of control?</p>	<p>Information from student interviews, teacher interviews and administrator interviews provided answers to research question one.</p>
<p style="text-align: center;">Question 2</p> <p>Is the use of self-pacing related to experience of test-taking for at-risk students?</p>	<p>Information from student interviews provided answers to research question two.</p>
<p style="text-align: center;">Question 3</p> <p>Is there a relationship between at-risk students' experience with self-pacing and their feelings about school dropout?</p>	<p>Information from student interviews, teacher interviews and administrator interviews provided answers to research question three.</p>

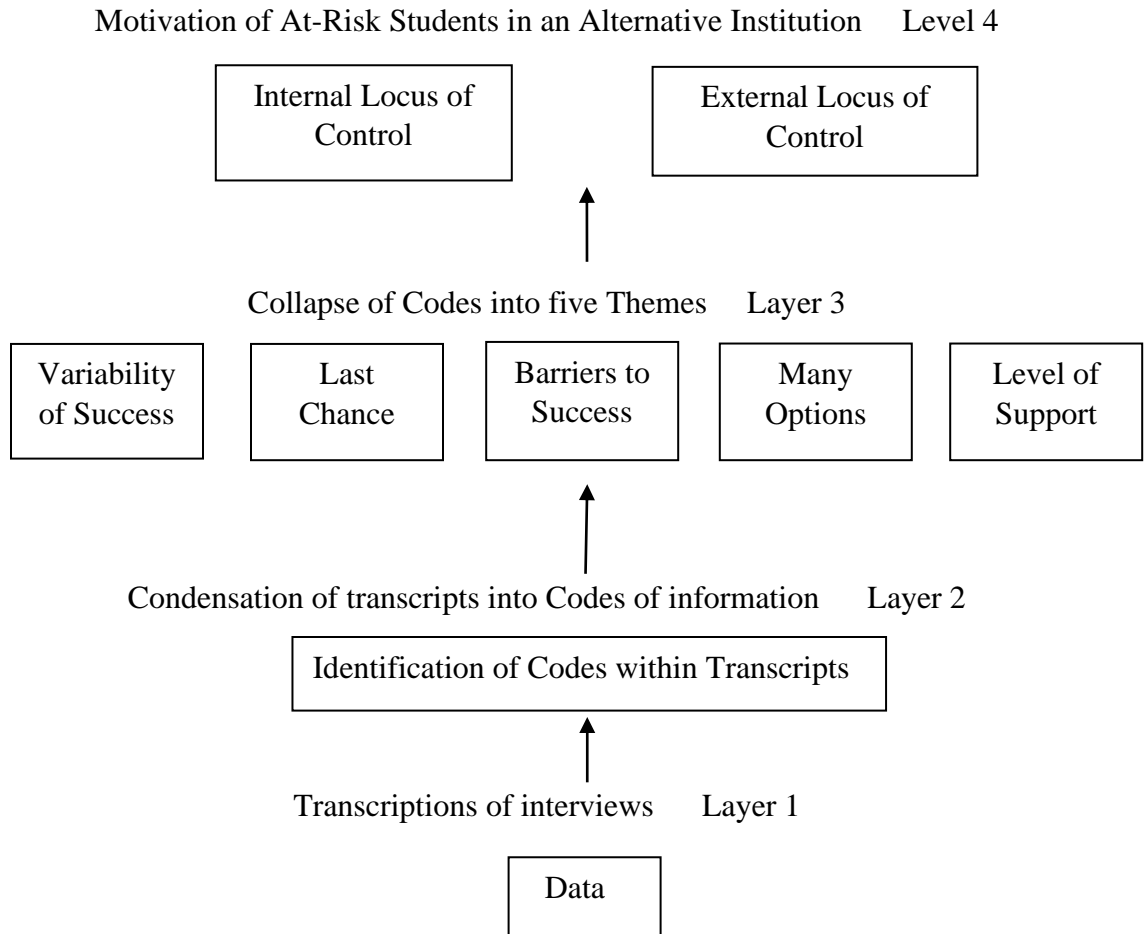
The table above shows responses from students, teachers and administrators to specific research questions. On the issue self-pacing and its relation to test taking, almost all students responded in the affirmative, saying “yes”.

Figure 3.1 known as layering was suggested by Creswell (2012). It summarizes the entire process of data collection, transcription, coding, identification of themes and

the results of the impact of self-pacing on locus of control of at-risk students. He stated, “It represents the data using interconnected levels of themes” (p. 251). Layering helps to organize the data, shows relationships or interconnections for better interpretation.

Figure 3.1

Qualitative Study of Locus of Control



The figure above places in context the results of the research, the fact that at-risk students in an alternative school can be categorized into two main groups; those who demonstrate an internal locus of control and those that demonstrate an external locus of control.

CHAPTER FOUR

RESULTS

While the focus of this study was on the possible relationship between locus of control and at-risk students' use of self-pacing, the interviews brought up a range of issues and concerns specific to these students' learning environment. In this chapter, I discuss findings as they related to the barriers that students faced for academic success along with the sense that alternative school was their last chance. I then discuss the themes of the variety of approaches described by students, teachers, and administrators in attaining the goal of graduation, along with the variability of experienced success. Finally, I discuss the synergism between different approaches that emerged through these interviews.

Barriers to Academic Success

The first theme identified was the barriers or stressors. The administrators and teachers intimated that these barriers combined were the underlying factors which prohibited work in their regular schools in the first place. One administrator opined with regards to success in an alternative school,

Other students tried but did not. It might be the coursework, sometimes its other factors. Obviously in an alternative school, you have kids who are going through a variety of stressors in their lives. Sometimes its job, sometimes its kids and law enforcement issues.

The point of the administrator is that some students fail because of stressors/barriers which stand in the way of their success. That the barriers to the success of at-risk students vary tremendously, and if the barrier is not identified, then the student would not receive the needed support and would fall through the cracks in the school system. The key to helping at-risk students is for all stakeholders to appropriately assess and diagnose the stressors that hinders the progress of at-risk students. A diagnostic approach would put the student in a better position to receive support. Some of the barriers in the lives of at-risk students have been identified as follows.

Childbearing/Pregnancies

There are also those students who drop out due to other factors as having kids. Such students are given the choice to work online from home and take care of their kids at the same time. An administrator responding to a question on how alternative schools impact students' academic achievement said,

Alternative schools have impacted students' academic achievement because of the different alternative methods for reaching the student. We get rid of the barriers that stand in the way of students by actually giving the students the chance or options to finish the course.

In other words, alternative schools focus on ensuring that students receive support to overcome all barriers. In a regular school setting, they do not provide a means of studying online and taking care of babies simultaneously. The alternative schools on the other hand do make those provisions. The academic achievement of the student who has a baby is impacted in a positive way because of those alternative methods or accommodations

made available to the student who is nursing her baby. The teachers reported that they maintain contact with students who work from home through constant communication to monitor/track their progress.

Behavioral

The other barrier identified was behavioral, that some students lack self-control, they blurt out loud, they have repulsive behavior, create disturbances, they lack ability to follow directions and are not able to create an environment for learning. The results suggest that some students who do not complete their diplomas had external circumstances/stressors standing in the way of their success. One of the teachers said that,

Some cheat their way through rather than gaining intelligence or acquiring new skills. They do not want to think critically but would rather give up. They are unmotivated and feel that their success is determined by external circumstances and if it is meant to be, they would succeed and if not they would fail.

Here, the teacher asserts that some students are not motivated, so they would rather resort to cheating their way through or resign to failure as an option. These students demonstrated an external locus of control, which would require that they are given all the support needed to help them turn around. Those external circumstance's need to be eliminated before they could be helped with their academics or to give the needed support.

An administrator posited that due to the numerous challenges students face, there is a need to provide both social and academic services to the students because some have adverse childhood, and he calls it 'Maslow before Blooms'.

What the administrator meant was that students cannot receive academic support if their challenges are not addressed first and foremost. Also, that there is a need for a wholistic approach to addressing the challenges faced by at-risk students. According to Beach (2014), the social-emotional needs of at-risk students must first be addressed before their academic needs. Students need support and the right tools in order to be successful.

Jobs/Employment

Due to socio-economic challenges, some students work to support their families. Alternative schools provide that safety net where students can work and still continue with their education. An administrator responding to the issue of options provided to students said,

The options are not the common things majority of schools do. We may give them a choice working online or working from home. That gives the student the hope that they could finish, it gives them a chance that they could work and still go to school.

The flexibility which allows students to work and go to school simultaneously has enabled many students to graduate from the alternative school. Flexibility of self-paced curriculum is also supported by the literature on the benefits of personalized system of instruction where students have the flexibility of working to support their families and going to school at the same time.

Law enforcement issues

Some students have had issues with law enforcements because of custody battles that sometimes ravages the at-risk student population. Crimes committed by students sometimes gets them into trouble with law enforcement. A teacher responding to a question about locus of control said,

Other factors that motivate students include staff, friends, families and some are influenced by their probation officers to overcome their circumstances.

Some students have been incarcerated or have been kept in juvenile detentions as a result of breaking the law or committing crimes. Some attend school with tethers on their feet as a means to monitor their activities, and all these serve as barriers in the way of their academic achievement. Probation officers are assigned to help at-risk students who break the law, to transition to a better behavior.

Lack of home support/Homelessness

Students move from one foster home to the other because they do not have a stable and safe place of abode. These students tend to lack the support and love of a family which affects them emotionally and also has a negative impact on their academic development. I had a situation where a participant could not be reached on the phone for interview because he was moving from one foster home to the other, had very unstable home life. Unstable homes are a major setback for many students and the root cause of homelessness varies from student to student. Some are due to behavior issues, socio-economic, death in the family, divorce and a wide range of factors.

Alternative School as a Last Chance

Another theme was the sense that alternative school is the last chance for these students who have been expelled/kicked out of the regular school to earn their diplomas. This setting becomes a point of no return for them, and they must succeed. An administrator said that,

As an alternative school, it's the students last chance, expelled, dropped out because they are not going to make it. They needed to work to support their families. We offer a place for them to reset, because the kids believe, and they know that the diploma will lead to better options for them. The challenge is that the barriers that got them here are still there, therefore we help them overcome those barriers.

In other words, the students have a last opportunity to succeed at the alternative school, but they cannot do so until the barriers that got them there in the first place, are dealt with. The students do not receive the support needed at the regular schools because the regular schools are not set up to accommodate the needs of those students who are at-risk of dropping out because they had to take on jobs to support their families. The alternative schools on the contrary make those provisions to support students. They can work and still go to school.

An interview question asked about the difference that an alternative school makes in helping at-risk students graduate, and a teacher said,

In our alternative school, some have been kicked out of the regular school, so there is not an option anymore, no second chance for them, circumstances for some reason leaves them homeless, for others our school is the last chance to earn their diploma.

The teacher is referring to the complexities of the barriers that confronts at-risk students, which calls for the alternative school to be proactive in addressing their concerns to ensure that at-risk students succeed in the long run.

Students are confronted with many socio-economic issues due to their family backgrounds many of which are a result of broken homes. They do not have the needed parental support systems. Alternative schools therefore have social workers, counselors as well as working with foster homes which help to fill in the gaps to provide the support systems needed.

Alternative Schools Offer Many Options and Levels of Support

The third theme identified was that, compared to the regular school, the alternative school setting offers many options such as online education, working from home and students can also have jobs and still go to school. One administrator said,

Every student has a story, and they are all different. Each of them is at a different point in their journey, therefore each kid must be treated differently. They are all unique, and what they need varies from student to student. One student may need a little bit of support, the bottom line is, you have to be authentically engaged with your students. You have to be proactive in reaching out to them and providing them services, whether it is academic services or social services because of the different traumas with adverse childhood. A lot of times you have to work with that first.

Alternative schools do not only provide academic services to students but also offer social, services to address their unique problems. The administrator went on to say that,

I have a phrase I use, 'Maslow before Blooms'. You have to get to their hierarchy of needs before you get to their academics. The alternative school has to care for the whole student.

The administrator was asserting that Maslow and Blooms has become a 'sin qua non'. Not until the social and emotional issues of students at-risk are addressed, the student will not be able to receive the education that is being offered to him/her. The alternative school therefore, offers a wholistic approach to addressing the needs of students. Many options in the alternative school setting make it a place where students can find supports that they need. Unlike the regular school where a one size fits all approach exist, alternative schools are set up in such a way that students with diverse needs can be accommodated and supported.

All stakeholders involved in the education of at-risk students agree that in order for the student to be successful, each students' need must be identified and addressed in such a way that it does not become a hindrance, preventing the students from achieving their goals. Alternative schools provide the space for students to do different things at the same time, but all students make progress towards achieving their individual goals and aspirations.

The students needed different levels of support since they were at different points in their journey. Some needed more support to graduate, therefore, there should be authentic engagement with students and being proactive in reaching out to them. For example, a student who nurses a child, could conveniently be enrolled in an online program, go to school, and still nurse their babies. The flexible nature of self-paced curriculum would accommodate some of the barriers/stressors that at-risk students face. At-risk students should opt for self-paced courses if traditional courses did not meet their needs.

At-risk students who were in favor of regular school said so because they did not know how to push themselves through the self-paced curriculum. They slacked because they did not have the privilege of being ordered to complete certain tasks according to specified schedules. The regular school structure of expectations was suitable for them because they could not push themselves. One student said,

Alternative school will hurt me because I set my own pace and that would cause my grade to drop because I slack sometimes.

Here, the student is saying that self-paced curriculum is not necessarily a safety net for everyone. Other self-regulatory mechanisms are needed to achieve their goals. Some needed a push to go through it.

Most participants in this study said that they were in control of their academics and that the alternative school offered the resources for them to succeed. However, contrary evidence suggests that some students are not able to push themselves and still needed the assistance of teachers to guide and push them to stay on task. The degree of support needed by students therefore varies from one student to the other. The student went on to say that,

Regular school is better because I am forced to stay on track, I am guaranteed to get some work done. Alternative school would be better for me, but I need help to stay on track.

The point here is that some students need monitoring from a teacher to stay on track, without which they will fall behind. Some students are pleading and crying for help because they believe that they can succeed but due to circumstances beyond their control, they are unable to make progress. The participant said, 'I need help to stay on track'. To

help at-risk students, we must first and foremost listen to them. The student must be part of the discourse and the quest for solutions to their academic challenges.

Another theme observed was that the options provided in the alternative school, in addition to the independence or self-paced curriculum, relieves students of pressure during times of testing. Students are not rushed during testing as experienced in regular school. A student responding to a question about test taking said,

You are allowed to pause a test and continue another time. You have thorough understanding of test material due to lack of pressure; you are able to complete at your own pace because you have more time to work.

As opposed to regular school, where there is pressure because test dates are set, time is set, you are rushed and may not finish the test, alternative schools provide the flexibility for students to take a test when prepared. These provisions or accommodations relieves students of testing pressure.

Some students are highly motivated and demonstrate an internal locus of control, others are unmotivated and demonstrate an external locus of control. One administrator opined that,

I will use anecdotal evidence. Some kids enrolled in the Fall semester who only needed a few credits each. Of that dozen or so, three students made it, nine did not. The conditions were the same. Those who graduated wanted it. They were motivated to finish and worked hard.

The main point here is that some students are motivated, and others are not. Some need more support than others. For example, there are those who would need a one-on-one assistance. The results suggest that at-risk students need to be monitored and guided when they opt for alternative education especially, for those students who are mediocre

and for those who are low achievers. Alternative school may not necessarily be beneficial to a student or motivate the student unless they are guided and given support where it is needed.

The Variability of Success in Alternative Schools

One other theme that was at the forefront in all the three groups interviewed was the fact that the amount of time students spent to complete their program in the alternative school varied widely. There were those who could complete their credits in a shorter time and those who are unable to make it due to a lot of factors. When asked “How would you say that students do in the Alternative School setting”, a teacher responded that,

Some do very well, finish faster than a traditional high school. Some have all their high school credits done in two years. They have the motivation to complete, but others linger on for several years, unmotivated and never do finish. It’s such a wide range.

In other words, some students are highly motivated and excel, but others are not motivated and do not make it. Those who are highly motivated complete their programs earlier than scheduled, but others don’t. and stay in the program until they age out of the program.

The alternative school systems are safe havens for some students, but not for everyone. Some students succeed after a short stay at the alternative schools, but others do not. Some do succeed when stressors/barriers that stand in the way of their success are

addressed. An administrator intimated that, “We help them get rid of barriers by giving different options.”

As long as there are options made available to students, many do eventually succeed in the alternative school systems. The fact that there is a wide range of outcomes with student successes cannot be overemphasized.

There are some students who opted for the alternative school because they felt that they needed to be independent/self-paced. One administrator said the following about students who want to be independent.

Yes we do, we do not get a lot of those students, but we do get a few that would come here, who have never had an academic problem. They heard about our program and just want to get out early. They come to enroll in our school, and they get to finish their high school diploma early.

The administrator is referring to those students who come to their program not because they are at risk of dropping out, but because they want to complete their program earlier than scheduled. There are those students who use the alternative school route to their advantage.

The alternative high school is a place that welcomes all caliber of students, not specifically those who are at risk of dropping out but also those who are high achievers. Those types of students find that the regular high school does not meet their academic needs very well and find that the alternative school is a better option as far as their academic progress is concerned. One student said,

In the alternative school, I am pretty positive about graduating because I can get through it when I set my own pace.

Another student said,

I can finish earlier. I was able to complete four classes in two weeks. I was more prepared and more organized in Alternative school.

The students were of the opinion that the traditional school retards their academic progress, not a learning environment and they could not be successful in that setting.

Most participants responded that they were in control, that they were motivated to do their work. Some were able to complete their program earlier than scheduled because they were self-paced and were in control and moved faster through the program. Their independence worked to their advantage. Some students feel that having one-on-one assistance worked better for them. They were better prepared and had better understanding. Others returned to their original school and made progress after spending some time in the alternative school. A student said that,

in the regular schools, one must graduate at a certain age, that everything is set for the student. Some students choose to self-pace and complete their diplomas within a shorter period, because conditions at the regular school are set in stone.

In other words, the regular school programs have no flexibility to it. One has to adhere strictly to their schedule which might not meet the needs of all the students, some of which might be stagnated due to the slow pace.

The teachers at the regular schools set the pace at which one must progress through their courses. Everything is set for the student; time to take quiz/test, time to complete a curriculum, when to graduate, everything is controlled in that setting and some students therefore opted to be independent. The teachers at the regular school do not care about your capacity to excel or complete diplomas at an earlier time. One student said, “the teachers do not care, and they determine the pace”. The regular schools are set

up in such a way that, a teacher stands in front of the class, teaches students and dictates what time tests will be taken and when students will graduate. On the other hand, in an alternative school, the student takes charge of the pace of his/her education.

Intervention Synergism

The interviews revealed a prominent theme from the data which I refer to as *Intervention Synergism (IS)*. IS means that several alternative treatments are offered to the students at-risk, with the hope that out of the alternatives one or two will help the student to overcome his/her barrier to be successful. An administrator said the following about options,

I would say, yes, alternative school does impact student's locus of control. Alternative schools give a little bit more options. Gives students options on how to learn, so if students choose the different method, it helps them so they can graduate.

Hence in this example, an alternative school becomes very relevant as opposed to the traditional system where one size fits all approach is the method of instruction which does not meet the needs of all students. The students are all different, have diverse kinds of barriers and therefore the relevance of intervention synergism in the alternative school system is that due to the broad range of strategies/options made available to the students, one or two strategies out of the options might address the barriers/stressors being encountered by a student. Interventions might work or turn the light on for a student to his/her advantage, which will not happen in a regular school setting.

When many options/strategies are offered to address student's needs, the probability that one of them might meet the need of a student at risk cannot be overemphasized. For example, the data revealed that some students were able to overcome their circumstances, made a turn around and graduated because of the influence made on their lives by their probation officers. When a teacher was asked, 'What factors in this setting do you feel help to influence/motivate students in a positive way?' a teacher responded,

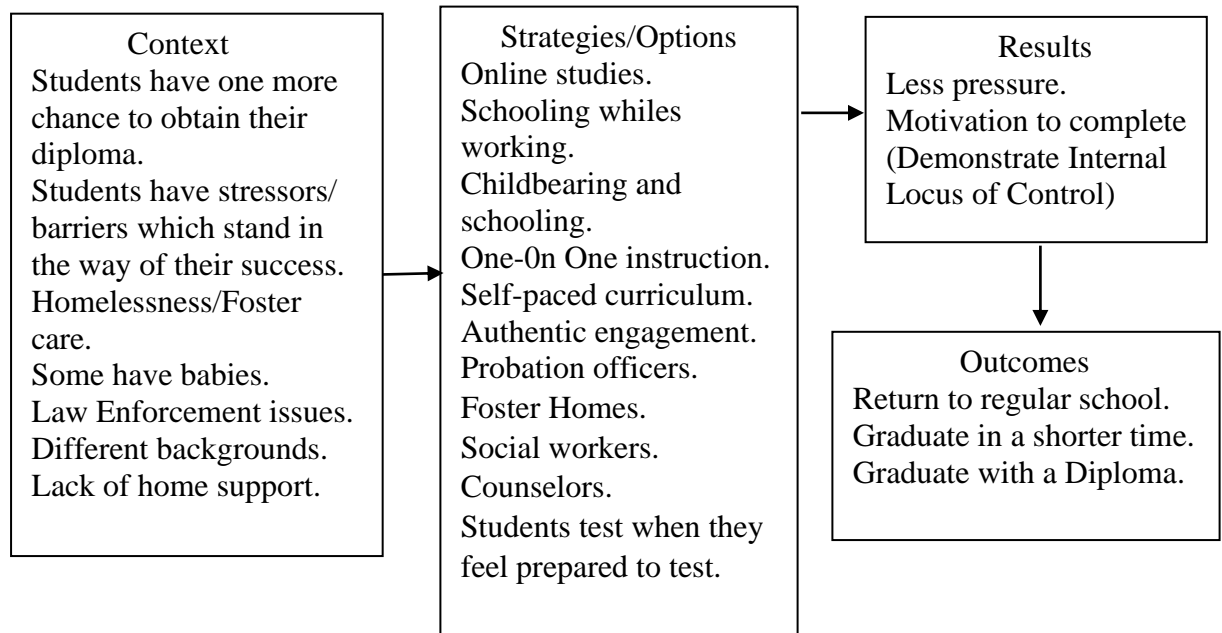
their teachers, their friends, their families. They want to make their parents proud, some have children, some are influenced by their probation officers and they want to get out of whatever circumstances they are in.

Here, the teacher is referring to the relevance of each stakeholder's contribution in making at-risk students succeed. It does not matter how covertly or overtly the stakeholder operates; it creates an environment for the student at-risk to succeed. The synergy of interventions makes it possible for at-risk students to obtain the help that is so much needed for them to graduate.

The Figure 4.1 summarizes and puts in perspective, the discourse from the participants in an alternative school, namely, the context, the strategies, options, results and outcomes.

Figure 4.1

Alternative School Setting in Perspective



The diagram above aims at placing the alternative school setting in perspective; the stressors that students encounter, the options and accommodations available, as well as the results and outcomes of all the interventions. The outcomes show that the alternative schools serve as safety nets for students who drop out of school as a result of the many challenges that stand in the way of their success.

CHAPTER FIVE

DISCUSSION, SUMMARY AND RECOMMENDATIONS

Alternative school students have been expelled or have dropped out of regular school as a result of many barriers that stood in their way. The alternative school offers a chance for these students to earn their diplomas. This setting can be seen as a point of no return for them, and they feel that they must succeed. The students come to the alternative schools with those barriers that made it hard for them to succeed. The barriers include but are not limited to homelessness, foster care, nursing babies, law enforcement issues, lack of home support and others. For these students to succeed, the alternative schools are designed to make provisions in the form of options to support the students. The options provided includes online studies, schooling whiles working, nursing babies and schooling simultaneously, one-on one instruction, self-paced curriculum, authentic engagement, probation officers, foster homes, social workers, counselors as well as other stakeholders who provide support in diverse ways. Students take tests and quizzes when they feel prepared to do so. These options provide a safety net for the students to overcome their social, financial, psychological and academic needs.

Resolving Research Questions

The response from the interviewees provided sufficient evidence to address the research questions. The first research question was, “Is self-pacing related to at-risk student internal locus of control?” The student participants for the most part said that they

were in control of their academics and were motivated, more prepared in the alternative school because they self-paced their courses. The results indicated that self-pacing impacts the internal locus of control of at-risk students.

Students differ in the manner in which they learn. A “one size fits all” approach that can be found in the traditional schools where there are more regulatory controls over instruction is not conducive to the learning preference of some students. The results of this dissertation study reveal that when students are exposed to the self-paced curriculum, they decide when to learn, how to learn and what to learn. These interventions altogether make them motivated and therefore demonstrate an internal locus of control.

The results of this study from student interviews, teacher interviews as well as administrator interviews showed that the variability of success in the alternative schools is important to consider. Some students were able to complete their diplomas in a shorter amount of time. These students came to the alternative school because they preferred the self-paced curriculum and were able to complete earlier than the traditional school would allow. These students demonstrated an internal locus of control. However, there were other students who also demonstrated an external locus of control. Students reported continuing to deal with barriers that made their experience in traditional schools challenging. These barriers continued to stand in the way of their motivation leading to an external locus of control even in a self-paced learning environment.

Behavioral issues were another key barrier in the way of success for some students. They lack self-control, they blurt out loud, they have repulsive behavior, create disturbances, they lack ability to follow directions and are not able to create an

environment for learning. The results indicated that some students who do not complete their diplomas are unmotivated and feel that their success is determined by external circumstances and if it is meant to be, they would succeed and if not they would fail. This group of students demonstrated an external locus of control, which would require that the students are given all the support needed to help them turn around.

The second question was, “Is the use of self-pacing related to experience of test-taking for at-risk students? All the student participants were of the opinion that they felt no pressure taking tests in alternative school because they were not rushed, were allowed to complete tests at their own pace and had more time to work. They were allowed to pause a test and continue at a later date. Also, they took a test when they felt ready or prepared to take the test. Based on the opinions and responses of participants, it is concluded that these students felt self-pacing impacted test taking in a positive way.

Test taking is always a challenge to many students. The thought of a test alone has the potential to scare some students to the bone. The conditions in the alternative school; the flexibility, the time allowed to complete a test, the readiness on the part of the student to take a test, the preparedness to take a test, all these accommodations together help to relieve at-risk students of the fear and pressure of testing and provides them with the environment where there is calmness and where they can feel confident to be successful on a test.

The third question was, “Is there a relationship between at-risk students’ experience with self-pacing and their feelings about school dropout?” The administrators and teaching staff as well as the students intimated that the alternative school helps

students to graduate. The participants discussed their feeling that alternative schools offer more support due to the different treatments offered to students. Students who were expelled from traditional schools found a safe haven in the alternative schools.

A teacher intimated that since the inception of the school, about 1100 students had graduated from their institution. These students would have dropped out of school if they did not have opportunity at the alternative school. The information gathered from the students, teachers and administrators reveal that self-pacing of curriculum and the several options and different levels of support offered to students enables them to graduate from alternative schools.

Implications

The importance of self-pacing as observed in the findings is confirmed by the literature. Tomlinson (1999) noted that this realization calls for individualized instructional programs that can provide the student with learning tasks suitable to his/her needs and allowing the student to take control of the pace of the learning material. The background of students has become increasingly necessary in determining the instruction suitable for their success. In order for instruction to benefit all students, it has to be delivered in a fair manner.

The results showed that students cannot receive academic support if their challenges are not addressed first and foremost. One administrator summarizes the challenges in what he calls “Maslow before Blooms”. What the administrator meant was that, in order for the students to receive the needed support, their psychological and

emotional needs had to be met before their academic needs. This finding reflects the observations of Beach (2014). According to Beach,

Effective school-home-community partnerships have the potential to expand opportunities for improving the quality of life for at-risk students by acknowledging that barriers exist. Schools have long understood that if they are to meet the needs of at-risk students, the barriers that impede their success must be effectively addressed. (p. 77)

All stakeholders in the education of at-risk students agree that students cannot achieve academically, if their emotional, psychological, and socio-economic needs are not dealt with. As effort is put into addressing the needs of at-risk students, it is hoped that many students will be motivated to help them succeed.

At-risk students should opt for self-paced courses if traditional courses did not meet their needs. The existing literature confirms my research findings from the participants interviewed. The importance of the application of self-paced course to motivate at-risk students cannot be overemphasized.

Students differ at the pace at which they comprehend concepts. Some are fast, others may need some accommodations. For a teacher to assume that every student comprehends at the same pace or that every student needs accommodation will be an injustice to the students. Teachers and other stakeholders in education should seek to assess the needs of students on an individual basis. The one size fits all instruction does not result in the academic success of every student since they differ in many ways.

Eniayeju (1983) alluded that the student body in colleges nowadays has a wide range of characteristics due to the differences in their background. Some students learn very well when they self-pace, others need guidance by the instructor, still others require

a setting where lectures are delivered by an instructor, therefore, the students learning preferences is paramount in their academic success. The concerns of the students who are of the belief that they needed some form of guidance to stay on track is confirmed by Eniaijeju, whose assertion is that some students need guidance by the instructor.

On the contrary, some felt motivated because they had more control, and less control to them means they are being forced to do things. The discourse from the students above shows that one size fits all instruction at the traditional schools is inconsistent with the needs of some students. There is a need for a paradigm shift where students are supported based on their “story”. Some students perform well when they are in control, and they do not do well when they are not in control. As posited earlier in the literature, when teachers consider the needs of individual children, then the process of teaching all students becomes quite clear. The idea that students in the bottom 25% of the class in academic abilities have needs that vary from those students in the top 25% of the class academically is obvious, yet many classrooms are still structured for one-size-fits-all instruction (Murray, Shea, & Shea, 2004). The educational needs of high achieving students differ from low achievers or students at-risk. To teach to the middle will be neglecting the needs of those at the top 25% and those at the bottom 25%. The argument for Differentiated Instruction is well documented and all students, advanced as well as at-risk students, need differentiated instruction to meet their specific needs.

The options in an alternative school tend to be more limited and may in fact be unavailable in the traditional school system. The findings further suggested that alternative schools serve as a conduit for students who do not perform or drop

out/expelled from the traditional schools to succeed. Welch (2000), alluding to the importance of fairness in education, wrote that the teacher has to focus on developing intrinsic motivation in each student. It is important for each student to be taught what he/she needs and that instruction should be delivered in a manner that is suitable to the student and that all students should not be taught the same instruction in the same way. From the data gathered in this research, one could conclude that alternative schools provide the fairness which enables educators to reach at-risk students at various stages in their journeys.

The literature review addressed the issue of differentiating instruction. Evidence found in the data gathered in this research, speaks to the relevance of differentiation of instruction. The literature said that, differentiated instruction will motivate all groups of students at different achievement levels and at different points in their journeys to develop their potential. For effective instruction to take place, teachers should identify the learning preferences of each student to meet their academic needs. According to Manning et al. (2010) “teachers should emphasize the point that it is not important that all the students are doing the same thing at the same time, but that each child receives the instruction he or she needs” (p. 148). Some students require accommodations or supports, while others are self-regulated and can make progress with very minimum support.

Contrary evidence observed in the results of this study suggest that some students might prefer regular school because they are not capable of pushing themselves to stay on track. A participant was of the belief that the regular school was better for him, because he was pushed to do work. In the alternative school, his grade would drop because he

slacks. Students in this category who have been expelled from traditional school will need assistance from teachers who from time to time would monitor the progress of students and make recommendations to keep students on track.

The variation in student motivation is important. The literature confirms the findings in this dissertation that there are several factors which affect the performance of students who enroll in self-paced courses. Low achievers are not well suited to do self-paced courses because they perform poorly. High achievers tend to perform well irrespective of the course structure to which they are exposed, therefore the caliber of student is very critical when students are being assigned to self-paced courses. Ainsworth suggests that students with mediocre performance may require courses with more structure. At-risk students can self-pace, but modifications and support are necessary to address their specific needs.

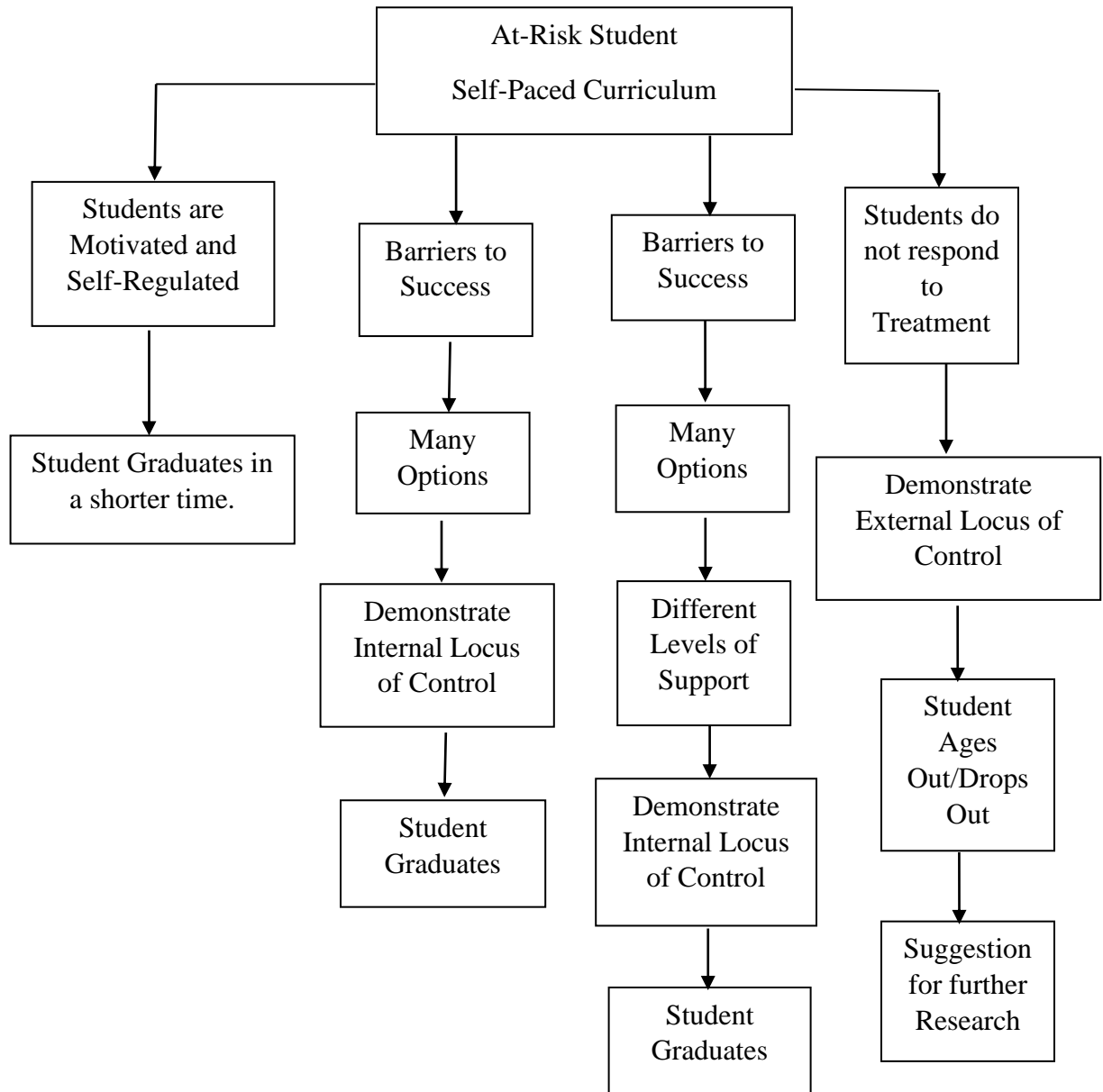
Figure 5.1 summarizes the impact of self-pacing on at-risk student locus of control. In addition to the self-paced curriculum, several options are provided for students to enable them to overcome barriers that hinder their success. The results of the research show that self-paced curriculum impacts at-risk students, and they demonstrate an internal locus of control.

The literature revealed that one major cause of underachievement of at-risk students is, the lack of motivation to pursue academic success. Strategies that would motivate them, raise the level of confidence in themselves should be sought after to help them succeed. Schools cannot do anything about students' backgrounds, but they can

help students stay in school or dropout of school depending on their policies and practices (Janosz, Le Blanc, Boulerice & Tremblay, 2000; Rumberger, 1995).

Figure 5.1

Summary of Impact of Self-Pacing on Locus of Control of At-Risk Students



This dissertation research indicates that at-risk students who do not perform well academically in a traditional school system do well in an alternative school setting where they were exposed to the structured program (self-paced). Factors such as learning under order, without taking their learning preferences and their pace of learning into account might directly affect at-risk student's self-efficacy and academic achievement. There is no specific outcome from the literature reviewed because the outcome of self-paced courses is impacted by several variables such as subject matter, caliber of student, prior knowledge and other factors as goal orientation; performance and learning goal orientations. The literature confirms my research findings that the students are all at different points in their journeys and each of them needed a certain degree/level of support. That there should be authentic engagement with students and being proactive in reaching out to each student.

The findings revealed that some students cheat their way through the system instead of gaining intelligence. This observation is supported by Shepard and Popp (1976) who assert that PSI is presented in a way that allows cheating by students. Shepard and Popp wrote that students could easily master a unit, learn the answers and share with other students thus helping them to pass but not really mastering the content, but just skilled in beating the system. Shepard and Popp, summarize the problems in the application of PSI as an alternative educational strategy by saying,

The point is we simply don't know enough about conditions under which PSI succeeds or fails. The fact that it has proven to be a highly desirable educational alternative for some students in some settings does not mean it is always desirable. Research must now turn to finer analysis of the relevant variables both singly and in interactive relationship. (p.298)

There is still a lot to study about self-pacing because of the effect of variables that come into play when PSI is studied. Until a thorough research is undertaken, it would be difficult to draw a line between the point where PSI succeeds or fails. The desirable aspects of PSI make it authentic and a viable option for helping those students who cannot graduate under a traditional education system to achieve their academic goals but the need for further research into the effectiveness of PSI cannot be overemphasized.

Limitations of Study

There are several limitations of the study worth addressing. The research was done at the peak of the pandemic when there were restrictions and accessibility was a problem and morale was at the lowest ebb. Families were experiencing deaths, and emotional distress. I had to be very circumspect with the length of time that interviews proceeded and to be brief as much as possible. It was not a time to interview people. More information could have been gathered in the absence of COVID pandemic and the restrictions that came along with it.

One of my greatest challenges was finding participants for my research. Many applications that were sent to alternative schools were turned down. In the end, when I received a positive response from one Superintendent, finding students to participate became a big challenge. After sending forth emails to students and teachers, I did not receive a response from neither teachers nor students. It was not until I went to the school premises to seek the assistance of the principal and his assistant that I was able to find

some participants. It was then that the principal intimated that the greatest problem of students in the alternative school is communication. It is obvious from the findings that much information was obtained from the teachers and the administrators.

Recommendations for Future Research

One aspect of this study was that the interviews were conducted in one setting. Information obtained from different settings might provide diverse themes not obtained in a single institution. Leadership matters in an institution of learning because it has impact on the culture and the outcomes of the various interventions and success in general. For this reason, multiple interviews in various schools would be useful in future research for a better understanding of the impact of self-paced curriculum.

Similarly, in this case study all students interviewed were African Americans. The results of interviews in a diverse race or cultural setting might reveal diverse themes or very contrary evidence which can only be known by having participants with diverse racial backgrounds. People of different races have unique issues that pertains to them. There could be differences in the barriers that stood in the way of their success. In all, a lot more would have been revealed by student participants of diverse racial backgrounds. Different barriers would call for different approaches to addressing at-risk student locus of control.

One administrator opined that some students stay in the program until they age out. Follow up research is needed to ascertain the outcomes of students who age out or who drop out of alternative schools. These students demonstrate an external locus of

control and some of the questions to be addressed include but are not limited to, “How do those who drop out of alternative schools fare in the job market”, “What are the next steps to take regarding their future in society?” and “Are they a liability to society? A follow up research would be worth the study.

The findings from data collected in this research as well as the literature confirm that self-paced curriculum has several advantages for at-risk students. It is imperative that this subject is further investigated by researchers to learn the impact of self-paced curriculum on locus of control in a diverse setting such as a Caucasian alternative school or mixed culture setting.

The contributions of administrators have profound impact on the outcomes in educational institutions. Alternative schools in diverse settings should be investigated to learn of administrators and their leadership style and how that influences the impact of self-pacing on locus of control/achievement of at-risk students in alternative institutions.

The administrators work ethic has much influence on the success of the institution in general. Many qualities of an administrator such as his/her accessibility, leadership style, as to whether he/she is a team player or a dictator impact on the output of the institution. All these qualities contribute to the school characteristics and has great impact on the performance of the students. The last but not the least, parents and guardians could also provide valuable information to enhance efforts and interventions to mitigate at-risk students' underachievement, and therefore could be sampled as well.

Conclusions

In conclusion, the results indicate that school leaders can implement self-paced instruction to impact the locus of control of at-risk students in a positive way. Some students cannot push themselves and would need instructors to monitor their progress and assist students with pacing of their curriculum. Many variables come into play when self-paced courses are being considered. It is therefore imperative that school leaders examine students' issues case by case to determine the variables that affect their motivation and the course of action needed to help at-risk students when considering them for self-paced courses.

The findings confirm the literature that, it does not matter what type of curriculum high achievers are subjected to, they will succeed and that low achievers are not well suited to self-paced curriculum. The literature confirm that some at-risk students age out and drop from alternative schools despite the treatments that at-risk students are subjected to at the alternative schools.

Administrators should relate information to stakeholders that exceptional students who are self-regulating are also welcomed to enroll in alternative schools. They can complete their diplomas earlier than traditional school schedule would allow, if they take advantage of the opportunities that alternative schools offer and that alternative schools are not for students at-risk of failure alone but also for exceptional students who are among the top 25 percent of achievers.

APPENDIX A

INTERVIEW PROTOCOL

Interview Protocol

Project: Understanding the role of curriculum pacing in relation to at-risk student locus of control.

Time of Interview:.....

Date:.....

Place:.....

Interviewer:.....

Interviewee:.....

Interview Procedure

Informed Consent

Student Interview Protocol

Ice Breaker

1. Tell participant about myself (Name, Background – Education and places worked).
2. Inform participant about the purpose of my study and how long the interview would take.
Inform them that I could forward a summary of the results to them if they so desire.
3. Assure participants of anonymity of interviewees.
4. Ask the participant about where he/she went to school.

Demographics

The following questions will provide background information of participant. Participant may skip any question they do not wish to answer.

1. What is your age? _____
2. Which of the following do you consider to be your ethnic/racial background?
3. To which gender identity do you most identify?
4. Think about the home that you live in at least 4 days a week? Who do you live with? (prompt with clarifying between biological and other, other relatives, non-related guardians like foster parents, etc)
5. What is your Grade level? _____
6. How much do you have left to complete your GED?

7. Current GPA _____ GPA before transfer to Alternative School _____
8. How long have you been in the alternative school? _____ years _____ months

Interview

Locus of Control

1. How do you feel about your CURRENT self-paced coursework? Do you feel you are in control of your work? How much is up to you?
2. In your PREVIOUS school, how much of your schoolwork was under your own control?
3. How do you feel about having MORE or LESS control over your schoolwork?

General

4. How would you compare your experiences in the self-paced school system and your regular school system? Which of the two systems has been beneficial to you and why? Which of the two systems did not work for you and why?

School Drop Out

5. Compare your regular school experience to your self-paced experience. In your assessment which of the two settings helped you to improve your study/preparation towards graduation?
6. How likely do you think it is that you will complete your degree? Do you think it will help or hurt your chances of graduating being able to set your own pace?
Please explain your response in more detail.

Test Taking

7. Think about your MOST RECENT test or quiz.
In your view, how did you feel taking a test in a self-paced environment as opposed to taking a test when the instructor controlled the pace of the curriculum.
8. How challenging was it to take this test and how much time pressure did you feel taking the test?

Closing

I want to thank you very much for participating in this interview. I appreciate you taking the time to do this. I may contact you in the future if the need arises for any clarifications. I want to assure you that your responses will be kept confidential.

Teacher Survey

Locus of Control

1. My research aims to investigate the relationship between self-pacing and student's locus of control (capacity to control or influence their success). In your opinion, would you say that alternative school setting, impacts student's locus of control? Why/why not?
2. What factors in this setting do you feel help to influence/motivate students in a positive way?

General

3. How would you say that students do in the Alternative School setting?

School Drop Out

4. In your opinion, does the Alternative School setting make any difference in the chances of the students graduating from high school and why?

Closing

I want to thank you very much for participating in this interview. I appreciate you taking the time to do this. I may contact you in the future if the need arises for any clarifications. I want to assure you that your responses will be kept confidential.

Administrator Survey

General

1. What is your general assessment of an Alternative School system?
2. In your capacity as administrator, could you please tell me how the Alternative School has impacted students' academic achievement?

Locus of Control

3. My research aims to investigate the relationship between self-pacing and student's locus of control (capacity to control or influence their success). In your opinion, would you say that alternative school setting, impacts student's locus of control and why?

School Drop Out

4. What about the school dropout, would you say that self-pacing impacts student rate of graduation?

Closing

I want to thank you very much for participating in this interview. I appreciate you taking the time to do this. I may contact you in the future if the need arises for any clarifications. I want to assure you that your responses will be kept confidential.

APPENDIX B

LETTER TO REQUEST PERMISSION

Letter To Request Permission

Oakland University
Department of Educational Leadership
Pawley Hall
456 Pioneer Drive
Rochester, MI 48309

The Principal
Alternative Education
ADDRESS

DATE

REQUEST FOR PERMISSION TO CONDUCT RESEARCH/INTERVIEWS

Dear Sir/Madam,

My name is Percy Welsing, a Ph.D. candidate of Oakland University in Rochester, Michigan. I am writing a thesis which involves a survey of students to study the role of self-pacing of curriculum on student internal locus of control. This project is being conducted under the supervision of Professor Julia Smith (Program Coordinator/Doctoral Degree) of Oakland University's Department of Educational Leadership.

I am hereby seeking your consent to conduct a survey of students from your institution. I have attached a detailed proposal for your perusal. If you require any further information, please do not hesitate to contact me on my cell, 313 971 3160. You can also reach me through my Oakland email; prwelsin@oakland.edu. Thank you for your time and consideration in this matter.

Yours Sincerely,

Percy Welsing.

APPENDIX C

IRB APPROVAL LETTER

IRB Approval Letter



Institutional Review Board

July 6, 2021

Protocol #: IRB-FY2021-337

Research Team:
Percy Welsing
Julia Smith

Based on applicable federal regulations, the following study, "Understanding the role of curriculum pacing in relation to at-risk student locus of control" has been determined to be Exempt, with the following categories Category 2.(ii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

Permission from Research Sites:

Please note the following:

- This IRB exemption determination letter means that this research has met one or more of the federal criteria for exemption per 45 CFR 46.104-Exempt Research.
- Before the research is initiated, permission to conduct research at a given site must be obtained from all research locations listed in the IRB submission. You must keep copies of all such permission letters for your files.
- It is the responsibility of each researcher to follow all applicable policies and procedures of any outside institution where the research will be conducted.

Letter and Consent Document:

This letter along with the IRB approved (date-stamped) consent document can be found in Cayuse in the Submission Details page under Letters and Attachments, respectively.

The IRB date stamped consent document must be downloaded and used in consenting participants.

Modifications:

Any changes to this exempt project must be reviewed by the IRB prior to initiation by submitting a MODIFICATION request. Do not collect data while the changes are being reviewed. Data collected during this time cannot be used in research.

Record Retention:

Exempt projects will be retained by the IRB office for three years after the last action on the project.

You are approved to start the research. Please retain a copy of this notification for your records.

If you have any questions, please contact the IRB office.

Thank you.

The Oakland University IRB

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