2013

An Investigation of the Relationship Between School Failure and At-Risk Students' General Self-Efficacy, Academic Self-Efficacy, and Motivation

Marguerite Josephine Wentzel
Minnesota State University, Mankato

An Investigation of the Relationship Between School Failure and At-Risk Students'

General Self-Efficacy, Academic Self-Efficacy, and Motivation

---

By

Marguerite Wentzel

Dr. Jennifer Pepperell, Dissertation Advisor

A Dissertation in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Education

Counselor Education and Supervision

Minnesota State University, Mankato

Mankato, MN

May 2013

Acknowledgments

My dissertation would not have been possible without help from the amazing people in my life. I would first like to thank my advisor and mentor, Dr. Jennifer Pepperell. She has encouraged me and challenged me in more ways than I ever imagined. Dr. Pepperell tolerated all my emails and all my "to-do" list meetings with a calmness and patience I was usually in need of. She has been a mentor to me not only for my dissertation but also in my life. I cannot express enough the gratitude I have for her.

I would also like to express my gratitude to my committee members. Dr. Jacqueline Lewis took me under her wing during my master's career class and she has helped me to soar to new heights ever since. Dr. Karin Lindstrom Bremer's enthusiasm for research and wisdom on the topic not only inspired me but also made this dissertation my best work. I am grateful to Dr. Richard Auger for his guidance and kindness throughout my master's and doctoral programs. Dr. Aaron Jeffrey brought a calmness and understanding to my dissertation for which I am beyond grateful.

I also want to thank my friends for their encouragement during this time and for entertaining me on my drives to Mankato and back these past three years. Stephanie, Katie, Amanda, Ashley, and Sarah, you are amazing women and I am so lucky to have you in my life.

I also want to thank my family. I want to thank my brother, T.J., for his support and strength and my brother, Michael, for his kindness and understanding. To my parents, Ted and Nancy, I can't express how thankful I am to have you as role models

and for raising me to believe that I can do anything. Mom, this was a long adventure, but as usual you were right. It was one I was destined to take!

Lastly, I wish to thank my deepest appreciation to the love of my life, Nick. He didn't sign up for this adventure, but has been with me for the whole ride. From proofreading chapter two to listening to me de-stress, I couldn't have done this without your love, unconditional understanding, and never-ending patience. I couldn't have done this without you.

CONTENTS

APPENDICES

LIST OF TABLES

An Investigation of the Relationship Between School Failure and At-Risk Students'

General Self-Efficacy, Academic Self-Efficacy, and Motivation

Marguerite Wentzel

Counselor Education and Supervision

Minnesota State University, Mankato

Mankato, MN

2013

ABSTRACT

This quantitative study explored the roles of general self-efficacy, academic self-efficacy, and motivation and its effect on at-risk students' course failures. Deci and Ryan's (1996) Self-Determination Theory and Bandura's (1977) Self-Efficacy Theory were explored as well as the risk factors of at-risk students. A multiple regression analysis determined that there was not a significant relationship between the number of courses failed and the independent variables: general self-efficacy, academic self-efficacy, and motivation. The moderator variable of working at-risk students was found to negatively impact the number of courses failed. While there are some limitations, this study contributes to the growing body of literature about at-risk students and way to improve the academic achievements of this population. In addition, recommendations for practitioners and future research are discussed.

CHAPTER ONE: INTRODUCTION

Introduction

Graduating high school is an important milestone in students' lives; therefore, school staff seek to educate every child in their student bodies. However, 24.5% of the students attending public school do not achieve this milestone. Over 1 million students during the 2008–2009 school year failed to graduate (National Center for Education Statistics, 2012). All races are struggling to graduate, especially African American and Hispanic students (National Center for Educational Statistics, 2012). Eight percent of African American students and 15.1% of Hispanics students dropped out of high school in 2010 (National Center for Educational Statistics, 2012). According to the National Center for Education Statistics (2012), students today work more than ever before, with 62% of employed students from low-income families working more than 15 hours a week. Non-native students or students that were foreign-born make up the largest group of working students: Over 75% of these students work and go to high school full time (National Center for Education Statistics, 2012). When students work full time in addition to attending school, they are at higher risk for dropping out of high school.

The status *dropout* represents the students who have not earned a high school diploma, are not attending school, and have not earned an equivalency credential such as the General Educational Development (GED) certificate (National Center for Education Statistics, 2012). Students that drop out of high school are struggling to find jobs: The National Center for Education Statistics (2012) states that, in 2011, 19% of African

American youth, 18% of Latino/a youth, 12% of Caucasian youth, and 9% of Asian/Pacific Islander youth were neither enrolled in school nor working. Being unable to obtain a high school diploma is detrimental to young adults as they attempt to enter the job world. In addition, students who drop out of high school are more likely to "feel depressed, feel isolated, and use drugs and alcohol" (Lagana-Riordan, Aguilar, Franklin, Streeter, Kim, Tripodi, & Hopson, 2011, p. 105). These facts convincingly establish the importance of a high school diploma, demonstrating the importance of exploring these at-risk students. While there are many ways to define the term "at-risk student," for the purpose of this study an at-risk student is a student who is in academic jeopardy and is at risk of not graduating high school.

Overview of the Chapter

This chapter begins with the scope of the study and the theoretical framework from which the study will be built. Next, the statement of the problem, the purpose of the study, and the research questions and hypotheses will be explored. In addition, definitions of the key terms for the study will be provided.

Scope of the Study

In the literature, there is an abundance of research about how at-risk students become at-risk (Alfassi, 2003; Bruyere, 2010; Christiansen, 1997; Gutman, Sameroff, & Eccles, 2002; MacMath, Roberts, Wallace, & Chi, 2009). At-risk students have been defined in many ways, from students who are regularly in trouble with the school to students that are struggling academically. At-risk students have many of the following risk factors: They often come from lower socioeconomic status families, they may have

physical or emotional disabilities or limited language proficiency, and they are often from a non-dominant racial or ethnic group. In almost all cases they experience negative school behaviors, resulting in disciplinary actions such as suspensions, detentions, and expulsions (Brown & Rodriguez, 2009). Absenteeism is also a characteristic of at-risk students, as these students miss more days than their peers who are successful academically (National Center for Education Statistics, 2012). Missing school can affect learning, as students are unable to keep up with their schoolwork and often lack the motivation to make up their work.

Another factor that is present for at-risk students in the current school system is the very high rates of suspensions and arrests that occur in the public schools each day. For example, every second in the United States a public school student is suspended, totaling 18,493 students per day being suspended (Children's Defense Fund, 2011). Every 4 minutes a child is arrested for a drug offense and every 8 seconds a child is arrested for a violent offense. This totals around 4,133 at-risk students being arrested each day in America (Children's Defense Fund, 2011). The students who are getting in trouble are also the ones who are also struggling to graduate on time; this leads to students dropping out. In 2011, every 8 seconds a high school student dropped out of school, which totaled 3,312 students a day (Children's Defense Fund, 2011). There is a race-based disparity among these at-risk students in the rate of suspensions, expulsions, and arrests. African American students were five times more likely to be expelled compared to Caucasian students during a school year (National Center for Education Statistics, 2009).

As these numbers rise, it is important to explore the roles of others in these students' lives. The interactions between parents, teachers, schools, and the at-risk student can have both negative and positive impacts on a student (Bowen & Bowen, 1998; Christiansen, 1997; Griffin & Galassi, 2010; Kayler & Sherman, 2009). According to Brown and Rodriguez (2009), at-risk students also share risk factors that involve their families, school size, location of their school, resources available to them, and institutional policies and practices. Students who felt connected at school were more likely to be successful, especially students who felt connected to their teachers (Hughes, 2011). The role of these relationships and the impact of those relationships on at-risk students require additional study. These supportive factors will be explored in more detail in Chapter 2.

Purpose of the Study

The current literature does not adequately address how at-risk students function and remain at-risk. There is an abundance of literature on how students become at-risk; however, there is a lack of research exploring, from the student perspective, how they are making their choices and how they perceive themselves. Having more information about how these students perceive their general self-efficacy, academic self-efficacy, and motivation will help school counselors, teachers, parents, and schools create strategies to support these students' academic success. With this better understanding, counselors can serve these students most appropriately.

With increased research, more accurate knowledge about this group of students can be obtained. At-risk students are often ignored until they are affecting a school's

4

retention rate (Children's Defense Fund, 2011). At that point, it is frequently too late to help these students develop academically or emotionally. Building general self-efficacy, academic self-efficacy, and motivation cannot happen overnight, and students need support to develop all of these factors. This study attempts to address general self-efficacy, academic self-efficacy, and motivation concerns and to provide some insight into the perceptions of at-risk students.

Theoretical Framework

To better understand this population, general self-efficacy, academic self-efficacy, and motivation were explored. General self-efficacy has been defined as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994, p. 71). Having a strong sense of self-efficacy can heighten individual accomplishment and well being to help an individual "approach difficult tasks as challenges to be mastered rather than as threats to be avoided" (Bandura, 1994, p. 71). The literature does not address how much general self-efficacy influences at-risk students specifically.

Academic self-efficacy is grounded in Bandura's 1977 Self-Efficacy Theory (McGrew, 2008). Academic self-efficacy is defined as an individual's belief that he or she can successfully achieve or attain a specific academic goal (Bandura, 1997; Schunk & Pajares, 2002; Wang & Sound, 2008). There is research on how academic self-efficacy influences various aspects of student academic functioning (Uwah, McMahon, & Furlow, 2008); however, further investigation is needed about the role of academic self-efficacy

with at-risk students to help students engage and even enjoy the school setting (Bassi, Steca, Delle Fave, & Caprara, 2007; Thijs & Verkuyten, 2008).

In this study, the general self-efficacy and academic self-efficacy of each participating student was assessed, as was motivation. Motivation is a concept that addresses how individuals choose to take action (Bandura, 1977). Understanding both how to motivate and how students motivate themselves internally will help determine how to provide resources to at-risk students that will allow them achieve more academically. Different aspects and types of motivation will be discussed and examined in Chapter 2.

For the purpose of this research, Bandura's (1977) Self-Efficacy Theory and Deci and Ryan's (1996) Self-Determination Theory were employed to understand the interaction among general self-efficacy, academic self-efficacy and motivation with at-risk students. Self-Efficacy Theory focuses on providing the individual with mastery experiences that lead to building self-confidence (Alfassi, 2003). According to Self-Determination Theory (Deci & Ryan, 1996) individuals are encouraged to make their own choices and to control their own behaviors. The connection between these two theories in terms of how at-risk students make their academic choices has not been addressed in the literature. If at-risk students are not feeling successful and have a low general self-efficacy and/or academic self-efficacy, it is important to understand how these failures affect their motivation. Further research on the general and academic self-efficacy of these students and their motivation to be successful may provide useful insight into why at-risk students continue to fail academically. These theories will be examined and discussed more in Chapter Two.

Statement of the Problem

Students who are considered at-risk often struggle throughout their academic careers. This struggle is often reflected in student's failing of more than one course or, at times, several courses (Alfassi, 2003; Wright, 2006). Understanding some of the causes for multi-course failure is a critical component to assisting at-risk students. Currently, the literature focuses on the academic causes of course failure, yet there has been no connection made between these failures and students' perceptions of their academic self-efficacy, their general self-efficacy, and their motivation. There is need for better understanding of these at-risk students' perceptions and academic experiences in order to assist these students more effectively in academic settings. This quantitative project has begun to close the research gap between how at-risk students perceive their academic self-efficacy, their motivation, and their general self-efficacy, and how these factors may or may not relate to number of course failures.

Research Question

In this study, I sought to understand how general self-efficacy, academic self-efficacy, and motivation affect students who have shown that they are academically at-risk by failing more than one class during their high school career.

Research Question: How do at-risk students' perceptions of their general self-efficacy, their academic self-efficacy, and their motivation predict the number of courses failed?

Research Hypothesis

H_o: At-risk students' perceptions of general self-efficacy, academic self-efficacy, and motivation do not predict the number of course failed.

H_a: At-risk students' perceptions of general self-efficacy, academic self-efficacy, and motivation are predictive of the number of course failed.

Definition of Key Terms

At-risk student: For the purpose of this study, an at-risk student will be any student that has failed more than one class during his or her high school years (grades 9-12). There are many factors that play a role in a student becoming at-risk academically, and these will be discussed further in Chapter Two.

Study's Variables:

General Self-Efficacy: For the purpose of this study, general self-efficacy is defined as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994, p. 71). Beliefs about self-efficacy can be developed in individuals; however, the most effective way is through mastery experiences, as failure undermines self-efficacy. General self-efficacy affects "life choices, level of motivation, quality of functioning, resilience to adversity, and vulnerability to stress and depression" (Bandura, 1994, p. 81). General self-efficacy of at-risk students was assessed in order to ascertain how an individual's self-perception affects him or her academically.

Academic Self-Efficacy: For the purpose of this study, academic self-efficacy is defined as "students' beliefs in their own abilities to successfully perform a set of given academic tasks" (Bartsch, Case, & Meerman, 2012, p. 133). Academic self-efficacy refers to the belief that individuals "can control their achievement outcomes" in academic settings (McTigue & Liew, 2011, p. 114). Academic self-efficacy of at-risk students was examined to understand students' perceptions of their academic abilities.

Motivation: Motivation is the reason why an individual acts in a certain way. According to Deci and Ryan (2000), motivation "concerns energy, direction, persistence, and equifinality—all aspects of activation and intentions" (p. 69). Motivation is considered to be highly valued because when individuals are motivated they start to produce and are productive (Deci & Ryan, 2000). At-risk student motivations were examined to understand how they relate to students' academic accomplishments.

Failed Classes: Failed classes are the number of classes, core and noncore, that a student failed during his or her high school career in grades 9-12. Students may be retained for a year for failing classes, or they may be retained for a lack of academic or social skills needed to advance to the next grade (The Condition of Education, 2009).

Summary of Chapter One

In Chapter One, I introduced the study background, scope and purpose of the study, theoretical framework, statement of the problem, research purpose, research questions, research hypotheses, and key terms. The theories incorporated were Self-Efficacy Theory and Self-Determination Theory (Bandura, 1977; Deci & Ryan, 1996).

The purpose of this dissertation will be to explore how at-risk students perceive their general self-efficacy, academic self-efficacy, and motivation and how these perceptions may or may not relate to their number of failed classes.

Overview of the Remaining Chapters

Chapter 2 will discuss the literature regarding at-risk students, specifically considering general self-efficacy, academic self-efficacy, motivation, and programs to aid at-risk students. In addition, I will examine how at-risk students become at risk and identify protective factors that support these students. The roles of teachers, parents, schools, and students will also be considered.

In Chapter 3, I will discuss the research design, setting and participants, instruments utilized, and the variables of the study. In addition, I will outline the data analysis and data collection procedures. Methodological limitations will also be addressed in this chapter.

In Chapter 4, I will present the findings of the study. In Chapter 5, I will discuss the findings, the limitations of the study, and the implications for counselors, counselor education, and further research.

CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

This chapter presents an examination of the literature in relation to at-risk students in terms of self-efficacy, motivation, and programs developed to improve at-risk student learning. The focus will be on how at-risk students become at-risk; the role of general self-efficacy, academic self-efficacy, and motivation; and how students develop protective factors. Teachers', parents', schools', and students' roles are also explored in this literature review.

The literature on at-risk students has emphasized the need for more effective programs and models to help at-risk students improve academically and become successful after schooling is completed. The literature review provides a framework of topics related to at-risk students and their success in the long term. This chapter illuminates the need for further research on at-risk students in the fields of counseling and supervision.

At-Risk Students

At-risk students are defined in the literature in a variety of ways. For the purpose of this study, at-risk students are defined as a "group of students who have experienced difficulties and/or failures as learners" (Alfassi, 2003, p. 29). There are a variety of problems that cause students to be labeled at-risk (Masten, 1997). Students at risk of school failure often show risk factors that include "a change in family structure, increased

11

violence, abuse and neglect, substance abuse, and disabilities" (Christiansen, 1997, p. 204). Challenges faced by at-risk students include completing high school, negative behaviors at school, failing classes, inconsistent attendance, and inability to adapt to the school environment (MacMath et al., 2009). Oftentimes, at-risk students in the literature are labeled as *dropouts*. A "dropout" is a "non-graduating youth who has left before the end of their senior year" (Menzer & Hampel, 2009, p. 660). Dropout students are twice as likely to be identified as at-risk students, and they are also likely to be students that struggle with other issues (Kayler & Sherman, 2009). Students who dropped out of high school often skipped school, abused cigarettes, and used marijuana (Messersmith and Schulenberg, 2008). Dropping out of high school is a significant life-changing decision that does not occur quickly; it is better understood as a process than as an event (Masten, 1997; Stanard, 2003). At-risk students do not develop overnight, but are struggling in many different ways over a long period of time. Therefore, it is important to address the various factors that cause students to become at-risk, as each at-risk student can be classified differently.

At-risk students have been classified in distinct groups in the literature. According to a study by Menzer and Hampel (2009), four types of at-risk students were identified among high school seniors who were at risk of dropping out and did not graduate. The first group was students who were considered *Lackadaisical,* or students who were lazy in classes, but still passed their classes. These students reported not believing that college was in their future plans. The second group was identified as *Overwhelmed*, or students who reported that their need to survive became more important than their academics. These students also reported having low resilience. The third group of students was

identified as *Strugglers*. These students had repeatedly demonstrated academic needs, taken several recovery courses, and reported that parents were not involved in their education. The final identified group was the *Surprised* students, who failed one class at the end of their senior year or miscounted their credits and were unable to graduate. This final group reported the most resilience of the four types (Menzer & Hampel, 2009).

Regardless of how these at-risk students are classified, it is evident that all at-risk students face many life and academic challenges that can play a role in their ability to be successful in academic settings. Identifying only one risk factor is not effective, as most individuals have a cluster of factors that affect academics (Bruyere, 2010; Gutman, Sameroff, & Eccles, 2002). Variables including family, school, and the individual's protective factors each play a significant role in whether or not students become at risk.

Family Role

An identified lack of familial support was found to be one of the significant factors challenging at-risk students (Bruyere, 2010; Christiansen, 1997; Gutman et al., 2002; Masten & Coatworth, 1998; Solberg, Carlstrom, Howard, & Jones, 2005). For example, Gutman et al. (2002) found that the most critical determinant of success for at-risk students was the family. The researchers reported that students whose families had consistent discipline at home and, often, parental school involvement were more likely to have a higher GPA and better attendance. In addition, students who attended religious services, took higher level classes, planned on attending graduate school after college, and had parents with higher education were more likely not to drop out as well (Messersmith & Schulenberg, 2008). In contrast, lack of family support and negative

family relationships can cause a student to be more at risk for academic failure (Bruyere, 2010; Gutman et al., 2002). Therefore, having no neglect or maltreatment in the home, as well as having consistent parental support, can help prevent students from becoming at risk (Bruyere, 2010).

Many at-risk students live in homes that prevent academic opportunities or individual student success (Christiansen, 1997). Socioeconomic status was found to be the most significant predictor for postsecondary achievement, though parental behaviors affected and predicted students' academic performance throughout the high school years as well (Trusty, 2011). In contrast, Bowen et al. (1998) surveyed at-risk middle school students and high school students to find that participants in the study who received free and reduced lunch services reported feeling more connected to the school. These participants reported that they felt they had a structure at school, including regular meals each day, which they lacked at home (Bowen et al., 1998). By not having resources at home, students can also be considered more at-risk for academic failure.

Risk factors like these are known and apparent and should be addressed within the family setting (Masten & Coatworth, 1998). Stresses and lack of coping skills during childhood contribute to future negative behavior and to choices made as adolescents and adults (Masten, 1997). During the middle school years, students are more vulnerable due to transitions and physiological changes occurring with developing adolescents (Gutman et al., 2002). According to a longitudinal study by Janosz, Archambault, Morizot, and Pagani (2008), by 7th grade, future dropout students were already showing personal, family, and social difficulties. The researchers examined students from 7th to 11th grade and found that instability with learning began during their early years. Students who

dropped out of high school identified that during their middle school years they had strong feelings of isolation and rejection (Janosz et al., 2008). In the literature, it is evident that children and adolescents are more successful when they have adults who care for them and brains that are developing normally, so that as they grow they are capable of managing their attention, emotions, and behaviors (Masten & Coatworth, 1998). Children are also less likely to be at-risk when they are participating in meaningful relationships, experiences, and opportunities, starting with their families (Bruyere, 2010). Focusing on the early years and providing children with familial support can be effective to prevent students from being labeled at-risk.

School Role

In addition to unstable home lives and lack of support, students also face troubles within the school setting. At-risk students are less engaged and less likely to understand the school environment and its constructs (Alfassi, 2003; Janosz et al., 2008). Although it is impossible at times to remove students from risky environments or to prevent extreme emotions, there are ways to help these students. With appropriate support at school, at-risk students can gain more confidence, which can then increase their self-efficacy (Lehman, Kuaffman, White, Horn, & Brunning, 2001). In addition, students' perception of themselves as involved in the school community can have a positive impact on their attitudes (Knesting, 2008). Therefore, one way to influence positive academic attitudes is to improve the student's engagement in school.

There is a need in the literature for a better understanding of the role of school engagement on at-risk students. Caraway, Tucker, Reinke, and Hall (2003) found two

variables that could either enhance or impede school engagement: contextual or self/internal variables. Contextual variables included an individual's family, peers, school environment, and neighborhood. Self/internal variables included self-efficacy and autonomy (Caraway et al., 2003). An individual's school engagement variables depended upon self-efficacy, goal orientation, and a student's fear of failure. Students who lacked school engagement were found to be more at risk for dropping out, substance abuse, teen pregnancy, and criminal activity (Caraway et al., 2003). Contextual variables, such as the need to please teachers and others at a school setting also helped increased school engagement, as did getting involved with extra-curricular activities (Pershey, 2010). Therefore, it is important that the school build at-risk students' school engagement by providing safer school environments, opportunities to build positive relationships with teachers, and other opportunities for students to connect with the schools.

In general, students are being bullied and are witnessing violence at home, at school, and in the media more than ever before (Messersmith & Schulenberg, 2008). In a study by Solberg et al. (2007), students who were considered not at-risk reported lower exposure to violence, in addition to strong connections with teachers and peers and the perception of high family support. In contrast, students who reported having been victims of violence at school were more likely to be distrustful at school, alienate themselves from their families, and be at-risk academically (Bowen et al., 1998). Students who did get in trouble at school, or who were suspended, were significantly less likely to have any academic achievement beyond high school (Trusty, 2001). Therefore, a safer school setting and more supportive teachers can be expected to lead to fewer at-risk students.

What has become clear in the research is that the riskier the environment a student lives in, the more likely they are to be considered at-risk (Bowen et al., 1998; Solberg et al., 2007). In a longitudinal study of middle school students who transitioned to high school and beyond, socioeconomic status, early math achievement, low self-efficacy, and suspensions from schools were all predictive of post high school accomplishments (Trusty, 2001). According to Trusty (2001), students who had negative academic experiences or lacked in these areas did not achieve as well as peers who did not have these concerns. In addition, a study by Gutman et al. (2002) found that students who were exposed to more risk factors had lower grade point averages, more school absences, and lower math achievement test scores.

Protective Factors for Individuals At Risk

The role of family and school has a powerful effect on at-risk students and can negatively or positively influence how these students become or stay at-risk. Students at-risk can be categorized in many ways, yet these students do share similar protective factors that help them in their attempts to be academically successful. Protective factors are defined as "elements from the environment that can help individuals not suffer from stress and/or difficulties to help him or her become more resilient" (Christiansen, 1997, p. 204). Masten (1997) also described protective factors as "the knack resilient individuals have to seek out people and environments that are good for their development, a kind of 'niche seeking.'" (p. 3). Protective factors are needed to combat risky behaviors in children and adolescents (Bowen & Bowen, 1998). These protective factors can include "connections to positive role models, feelings of self-worth and self-efficacy, feelings of hope and meaningfulness in life, attractiveness to others, talents valued by self and

others, faith and religious affiliations, socioeconomic advantages, good schools, and opportunities to learn or qualify for advancement in society" (Masten, 1997, p. 3).

Protective factors are classified as external or internal factors. An example of an external protective factor is peer support, which has been found to be a predictor of student achievement (Gutman et al., 2002; Masten & Coatworth, 1998). According to Masten and Coatworth (1998), high-achieving peer influence could be a positive connection for at-risk students. Having positive relationships and positive external influences can help at-risk students achieve academically.

In addition to external factors, an individual's internal behaviors can be protective or detrimental. At-risk students have been found to have negative feelings of competence, lack of autonomy, and/or unfulfilled feelings of relatedness or belonging (Ryan & Deci, 2000). To meet these needs, at-risk students may turn to risky behaviors. In one study, Patrick, Lee, and Larimer (2011), studied the risky behaviors of 1,200 college students. The researchers found participants reported motives to engage in risky behaviors to match peers' risky behaviors; the individual's enjoyment of the risky behavior was less of a factor (Patrick et al., 2011). Students engaged in these risky behaviors because they were getting a personal need met by engaging in the behavior. In a different study about risky behaviors, Foster, Shenesey, and Goff (2009) studied narcissists who engaged in risky behaviors. The researchers found that these individuals did not engage in behaviors due to a lack of inhibition, but rather due to eagerness for possible rewards related to these risky behaviors (Foster et al., 2009). Desire for a reward or for peer support may cause students to choose to take external risks, as might a feeling of urgency to act on these desires.

At-risk students can become more at-risk due to their desire to engage in these types of risky behaviors. According to Cyders and Coskunpinar (2010), having feelings of urgency is a significant predictor of risky behaviors. Students reported that risky behaviors were not linked to having high emotions, a frequency of extreme emotions, or even the pre-meditation to perform a risky behavior. The risky behaviors occurred during and after having extreme emotions, in order to cope with the negative experience. Higher urgency rates to act led to a higher chance of acting on the risky behavior (Cyders & Coskunpinar, 2010). For example, more vulnerable students may have higher levels of stress and health concerns, which then can lead to these students having and engaging in more risky behaviors (Solberg et al., 2007). To prevent risky behaviors, it may be important to focus on how to handle extreme emotions instead of attempting to prevent such emotions from occurring.

After identifying possible protective factors, it is also important to also understand how to help at-risk students develop such attributes. One way is to change at-risk students' perceptions and make school meaningful (Bowen & Bowen, 1998). Another way is to explore negative general self-efficacy and how it contributes to at-risk student behavior.

Current Methods to Address At-Risk Students

There are many ways to address the needs of at-risk students, including teacher support and changing school policies to improve at-risk student learning. However, there is also a need to further advance this research (Bowen & Bowen, 1998; Bowen et al., 1998; Kayler & Sherman, 2009; MacMath et al., 2009). Current literature explores how

teacher support, parental support, school support, and student advocacy can help at-risk students be successful.

Teacher Support

There is a wealth of literature describing the impact teachers can have on at-risk students. Providing training on the specific needs of an at-risk student to teachers and helping them understand this population is critical (George, 2010; Martin, 2006; Zimmerman, 1999). Teachers who addressed the individual student's needs and communicated with parents on a regular basis were found to be helpful in improving academics (George, 2010; Griffin & Galassi, 2010; Kayler & Sherman, 2009; Knesting, 2008; Ward & Kouzekanani, 2009). Providing this support in or outside the classroom is an effective strategy for reaching at-risk students.

Teacher support has a direct effect on grades and educational investment for the student (Bowen & Bowen, 1998; Knesting, 2008). According to a qualitative study by Knesting (2008), participants ranked committed teachers as the most important factor for helping at-risk students, ahead of academic support and counseling programs. Participants listed the following behaviors of effective teachers: accepting students individually, believing in students' ability to achieve, learning about their individual students, and believing that all students could achieve what was most beneficial to their learning success. Teachers' interest in student opinions and willingness to provide opportunities for student voices to be heard were deemed important, as were teachers' attempts to seek out students to understand them better (Knesting, 2008). In addition, students who did well academically reported that they perceived high levels of caring,

respect, and encouragement from their teachers. These participants also believed that their teachers understood racial and cultural differences (Bowen & Bowen, 1998). The connection, or rather, the positive relationship between the teacher and student is important. This relationship was found to have a greater impact on the student academically than instructional expertise (Ward & Kouzekanani, 2009). The importance of the teacher-student relationship must be addressed when working with at-risk students.

Teachers can reach at-risk students in various ways. In a study by George (2010), students at a community college were given remedial math interventions. The researchers found that teachers who provided autonomy, caring behaviors, and critiques that were beneficial to the student motivated students. Participants shared that they needed teachers who looked past their misconceptions of their students and considered the limitations of the students in regards to their lives and true needs. Students also stressed the importance of teachers not imposing on their autonomy or on their ability to make choices and personal decisions (George, 2010). To reach these students, MacMath et al. (2009) found that it was not necessary to change or simplify curriculum; rather, it was more effective to make it more application based and to provide real-life examples. By providing repetition and positive reinforcement, students were better able to grasp the topic and to improve self-efficacy (MacMath et al., 2009).

Another way to assist students without changing the curriculum is to teach self-regulation skills. In a study by Zimmerman (1998), teachers who taught self-regulation strategies in the classroom were able to improve students' overall academic achievement. The teachers focused on students' "self-generating thoughts, feelings, and actions for attaining academic goals" (Zimmerman, 1998, p. 73). By teaching based on students'

needs, teachers taught students not to wait for an evaluative test to recognize learning

deficiencies on a topic in the classroom. Teachers can also help at-risk students by

providing homework logs that outline a student's strengths and weaknesses (Ramdass &

Zimmerman, 2011). This technique can help students identify their potential even outside

the classroom.

Focusing on student-centered learning and realizing that some students are more

challenged by obstacles outside of school than by a lack of academic ability are essential

aspects of working with at-risk students (Alfassi, 2003; MacMath et al., 2009). In

addition, collaborating with teachers and working towards curriculum integration are

effective strategies to help at-risk students (Alfassi, 2003; Janosz et al., 2008; MacMath

et al., 2008). It is important to note that at-risk students who have little home support also

perceive themselves as having little teacher support (Bowen & Bowen, 1998). The

combination of both can be detrimental to at-risk students academically.

Parental Support

Understanding the role that at-risk parents play in their students' lives is necessary

to addressing the needs of at-risk students academically. Parental involvement in

students' academic life is positively correlated to student achievement (Bowen & Bowen,

1998; Christiansen, 1997; Griffin & Galassi, 2010; Kayler & Sherman, 2009). There is

more of an academic impact when both student and parents are committed to the same

goal (Kayler & Sherman, 2009).

Parental involvement declines by the time students reach secondary schools, which can further explain the dropout phenomenon (Griffin & Galassi, 2010). In a study by Griffin and Galassi (2010), parents were asked about academic barriers for their students, their roles as parents, and the resources they perceived to be available to their students. Many themes emerged from the study, including parents' uncertainty about their role and about what resources were available to them as parents and to their students. Parents also expressed concerns about the social aspects of the school setting. Parents were unsure about the communication among teachers, the school staff, and themselves. Participants reported wanting to have more proactive communication and saw this as a shared responsibility with the school (Griffin & Galassi, 2010). The role of what parents should or should not do is not clear to the parents of many at-risk students who would like to become more involved. In many cases, parental involvement happens too late for at-risk students to achieve academic success.

School Support

The school can play either a beneficial or detrimental role for at-risk students. Research shares how important it is for students to contribute to their learning and be part of the solutions to problems that are affecting them (Bowen et al., 1998; Christiansen, 1997). There are several interventions and strategies that schools can implement to aid these academically challenged youth.

By addressing the student's needs and providing positive relationships, schools can more successfully work to help all students. Christiansen (1997) researched at-risk students and effective strategies for helping them. Christiansen (1997) found that

providing planned and personalized attention to students' needs was effective, as was

having school counselors provide resources not only to the students, but to staff and

teachers as well. The key to success with these students was found to be not only

addressing the current problem, but also providing support and resources for the future

(Christiansen, 1997). Wright (2006) developed very specific strategies for schools to

implement: The first step was for schools to identify the root problem, whether a lack of

motivation or a true skill deficiency. The second step was to identify the learning stage

the student was in and then address whether the student was in the appropriate level of

instruction. If interventions were being implemented it was important to make sure they

were empirically researched and that students were actively involved in the intervention.

Reviewing the material and demonstrating understanding the material in more than one

way were steps the student needed to complete. The school provided the student with

choices, and their progress was monitored frequently. In addition, Wright recommended

that schools develop an intervention team or a school wide program for students with

academic problems that included staff and teachers (Wright, 2006).

    With violence in the media and in the classroom, schools need to address how

safe students feel while on school grounds. Students are unable to learn when they are not

feeling safe or secure at school, and schools need to be sure these needs are being met

before expecting that students will be able to perform higher thinking tasks, such as

learning (Bowen et al., 1998). Teachers can also provide safety at schools by helping

schools decrease violence and by teaching students how to handle violence or crime

positively in their everyday lives (Bowen et al., 1998). Many at-risk students are affected

by violence at home and there is little the school can do, except teach students resiliency and self-regulation.

Student's Role

Examining the role of resilience and self-regulation provides a better understanding of how to work with at-risk students. Resilience has emerged as protective factor of at-risk students in the literature (Masten, 1997; Masten & Coatworth, 1998; Nota, Soresi, & Zimmerman, 2004). Resilience can be defined as the "how children succeed in spite of serious challenges to development" (Masten, 1997, p. 1). Resiliency research examines the risks, symptoms, and problems in an individual's life. As children live in multiple contexts, each child has different protective factors and is at-risk for a variety of things (Masten, 1997). Therefore, it is important to study how resiliency plays a role in at-risk students' behaviors, as the resiliency learned in childhood and adolescence plays a role in their adult lives.

Self-regulation behaviors are also developed during the elementary years (Ramdass & Zimmerman, 2011). The development of these skills affects adolescents and their future choices as adults (Nota et al., 2004). Self-regulation is defined as "a proactive process whereby individuals consistently organize and manage their thoughts, emotions, behaviors, and environment in order to obtain academic goals" (Ramdass & Zimmerman, 2011, p. 198). Self-regulation can also be defined as "an enduring trait that stays with students, where an individual is able to regulate emotionally, cognitively, and behaviorally" (Rapp-Paglicci, Stewart, & Rowe, 2011, p. 309). Self-efficacy is a key component of a student's self-regulation; therefore, to improve self-efficacy, it is

imperative to consider an individual's self-regulatory skills (Ramdass & Zimmerman, 2011). Nota et al. (2004) found that the more self-regulatory skills an individual has, the more likely they are to achieve well academically. Self-regulatory strategies are approaches that are "personal methods aimed at acquiring knowledge and skills" (Nota et al., 2004, p. 199). For example, at the university level, students who have self-regulatory skills are better able to organize, such as putting data in an understandable order in an outline (Nota et al., 2004). The authors also found that the best predictor for students' continued education was a self-consequence strategy, where students' perceptions of the rewards and punishments for success or failure determined their behaviors (Nota et al., 2004).

In addition, there is a positive correlation between self-regulation skills and motivational beliefs, especially in regard to academics tailored to the interests of the individual and the achievement or ability level of the student (Ramdass & Zimmerman, 2011). According to Paglicci et al. (2011), self-regulation increased with task behaviors, academic productivity, and accuracy, all of which help reduce disruptive behaviors. At-risk students tend not to have self-regulation skills, therefore, they can be lacking in social skills, anger management, and problem-solving skills. To improve such skills, researchers found that "managing distractions, improved self-efficacy, setting achievable goals, providing responsibility for learning, and setting a place for homework completion" help at-risk students become more academically successful (Ramdass & Zimmerman, 2011, p. 215). Teachers can help establish these self-regulation skills in the early years by helping students learn to set achievable goals, to stay on task, and to

develop personal positive beliefs about effort and expectations (Ramdass & Zimmerman, 2011).

For example, in a study by Paglicci et al. (2011), at-risk students were placed in an arts program that focused on self-regulation. From the pre/post tests, researchers found that student self-efficacy improved, mental health problems were reduced, and there were fewer academic problems with the students. Using an art program was effective as students were able to reduce internalizing, externalizing, and aggressive behaviors by expressing their feelings and thoughts with art (Paglicci et al., 2011).

Mentoring

Positive relationships with adults or peers can aid at-risk students academically (Christiansen, 1997; Gest et al, 2008; Kolar & McBride, 2011). In some cases tutoring or mentoring was not effective; however, the way in which mentoring occurred was crucial in regard to seeing academic improvement (Somers, Owens, & Piliawsky, 2009). The most effective way for mentoring at-risk students specifically has not been researched in depth.

In a study by Kolar and McBride (2011), there were pre- and posttests given to students who participated in the Big Brother/Big Sister program, based out of a school setting. Results of the study found that duration of the relationship did not play a role in terms of student improvement; instead, the relationship with the mentors was quickly formed, and this closeness led to positive effects. Authors found positive outcomes for both younger and older children with their mentors. Although the program did not lead to

significant grade-point-average increases, participants reported growing developmentally (Kolar & McBride, 2011).

There has also been some research in regards to utilizing peer mentors to aid at-risk students. When peers tutor peers there is a connection formed. In a longitudinal study, peer tutoring was found to improve academic skills for at-risk students (Gest et al., 2008). Peers constantly evaluate each other and often pick friendships with individuals who have similar academic skills. Academic reputations form and change as students develop academically (Gest et al., 2008). Recognizing and utilizing the importance of peer relationships can lead to academic improvements for at-risk students.

Models

In addition to mentoring, there is a breadth of literature that explores ways to implement programs and models to improve at-risk students' academics. From motivational programming to teaching social skills to providing small learning communities during the school day, there are various ways that schools are trying to help these students.

For example, one study explored how to help at-risk students believe that they had control over their learning (Zyngier, 2007). The study determined that young people at-risk were not be poor learners; instead, they did not believe they had control over their own future and, therefore, learning was not imperative to them. Zyngier (2007) promoted a CORE pedagogy, which addressed four concepts: Connecting, Owning, Responding, and Empowering. The Connecting step was to help the school staff engage in the student's cultural knowledge. Owning meant allowing for all students to see themselves

as represented in the learning that was taking place at the school. Responding included staff responding appropriately to students' experiences and helping students explore those experiences. The last step, Empowering, was helping students believe that they will make a difference in their own lives and will have the opportunity to discover their own autonomy (Zyngier, 2007).

Addressing the ways students are taught is important, as well as the type of classroom the learning is taking place in. Several studies looked at students placed in an alternative school setting or a specific learning community. Fuller (2009) examined the consequences of placing at-risk students who had histories of being suspended in an alternative school setting. Four key components were stressed in the setting: fostering a community feeling, linking mastery skills in the classroom skills usable outside the classroom, and opportunities to display generosity not only toward themselves but also toward the outside community. The teachers in the schools were specially trained on these four components. They were also trained to look for reasons for student reactions to situations, instead of assuming that students were born with these behaviors (Fuller, 2009). In a different study, Stanard (2003) described the effectiveness of the Coalition Campus School Project (CCSP). The CCSP created a new high school to help students with the lowest performance rates. In this setting there were low student-to-teacher ratios, small classes, clear expectations for students, portfolio-based performance assessments, staff commitment, an alliance between school counselors and community counselors, and school counselors' involvement in policymaking. This collaborative effort created a better school environment for the learners, specifically the middle school Latino students, who typically would drop out during this phase of their schooling (Stanard, 2003).

Learning communities have also been found to be effective for at-risk students' academic achievement. For example, Felner, Seitsinger, Brand, Burns, and Botten (2007) studied small learning communities that engaged at-risk students in learning. Having engagement and motivation by both students and teachers was found to be effective for at-risk students in large learning settings with many students. A personalized learning environment showed a positive effect on student motivation and academic outcomes for students who were minorities or were considered disadvantaged (Felner et al., 2007). These communities were created to develop higher performance for all students in the school. In contrast, however, having students stay inside the main school was also effective in some studies.

Some programs have been developed to support at-risk students when there are not opportunities to change students' classroom environment. Griggs (2010) studied a motivational program that was developed for at-risk students to help the students connect to the library as a resource. The 10-week program gave opportunities for students to become more aware of career opportunities and to realize their potential. From the program, the participants reported having a clearer idea of when they planned to finish high school and what they would like to accomplish after graduation (Griggs, 2010). In another study, school counselors were utilized to promote student success in academics and improve students' social competence (Brigman, Webb, & Campbell, 2007). The Student Success Skills program was developed to teach academic, social, and self-management skills in the classroom and in group settings. The student participants selected had low- to mid-range academic achievements. In the eight weekly group sessions with trained staff, students reported higher achievement in math skills, as well as

improvement in their behavior (Brigman et al., 2007). Although there are no specifics in the literature on what program is the most effective with at-risk students, it is evident that taking action of some form can help these students, whether it is differentiated instruction or small learning communities.

General Self-Efficacy

When exploring student achievement and at-risk students, it is important to determine the role of self-efficacy. According to Bandura (1994), self-efficacy is defined as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (p. 71). However, individual's general self-efficacy is impacted by many different experiences (Bandura, 1977).

An important factor in general self-efficacy is individual's expectations of himself or herself. According to Bandura (1977), efficacy expectations determine how much effort people will put forth and for long they will persist in the face of obstacles. The stronger the perceived efficacy, the stronger the efforts the individual puts forth (Bandura, 1977). In contrast, students who have academic failures, low general self-efficacy, and low value of academics are more likely to develop hopelessness and to have low self-esteem, ineffective use of learning strategies, and decreasing academic performance (Au, Watkins, & Hattie, 2010).

According to Bandura (1977), fear can cause individuals to be bolder in situations presumed safe but to return to old negative behaviors, such as self-doubt, in less secure situations. If students are not feeling academically secure in school, they may revert to coping behaviors that they have developed over time. Failures can impact self-efficacy of

students in elementary, junior high, or high school. Failure then in turn can affect the individual's self-perceptions. According to Bandura (1977), perceived general self-efficacy is a stronger predictor of failure than past experiences.

As an individual's self-efficacy decreases, learned hopelessness develops. Learned hopelessness is the expectation that a highly negative event will occur and that the individual will be unable to change the situation (Au et al., 2010). In contrast, learned helplessness has also been defined as when the individual expects to be unable to change a situation and therefore does not attempt change (Au et al., 2010). Au et al. (2010) performed a longitudinal study of self-efficacy and found that participants reported lowered academic achievement as one of the consequences of learned hopelessness. Prior achievement was found to be the best predictor of success as reported by the participants. In the study, the students who were given negative feedback before the session reported having lower self-efficacy and self-esteem than those who did not receive the negative feedback. The more that students saw their achievement as a function of others and not of themselves, the more likely students were to have learned hopelessness, learning difficulties, and lower self-esteem. The learned hopelessness led to further disengagement from all parts of schooling (Au et al., 2010).

In contrast, Abrahamson, Seligman, and Teasdale (1978) conducted a study on two types of helplessness: chronic, or long-lived and recurrent; and transient, where the feelings of helplessness are short-lived and non-recurrent. To lessen these types of learned helplessness, individuals needed do the following: change the external environment, be realistic about positive outcomes, change expectations of what can be controlled and what cannot be controlled, and develop ways to improve self-esteem

32

(Abrahamson et al., 1978). Helping individuals understand that some outcomes are uncontrollable helped empower them to make changes and to understand that they were capable of making changes.

Whether self-efficacy is damaged by learned hopelessness or learned helplessness, the fear of failure remains for these at-risk students. There is a not a clear link in the literature between general self-efficacy and academic self-efficacy in regards to at-risk students. However, the cycle of fearing failure and negative self-perceptions often repeats for at-risk students, making it necessary for schools to help these students break these patterns.

Academic Self-Efficacy

Understanding the function of academic self-efficacy may provide insights for working with at-risk students. Academic self-efficacy is drawn from Bandura's (1977) concept of self-efficacy (Fire, Bond, & Byars-Winston, 2011). Academic self-efficacy is an individual's belief he or she can and will meet the demands of his or her academic environment (Fire et al., 2011). Academic self-efficacy has also been defined as "an individual's belief in his/her ability to perform a certain academic task" (Huang, 2012, p. 784). Academic self-efficacy can be a determinant of academic achievements and expectations for both genders (Trusty, 2001).

There is a strong relationship between academic self-efficacy and academic achievement (Multon, Brown, & Lent, 1991; Wang & Castaneda-Sound, 2008). The literature reveals a positive correlation between academic self-efficacy and higher academic achievement (Fire et al., 2011). Some longitudinal studies have found that

academic self-efficacy is predictive of academic achievement (Fan & Williams, 2010; Huang, 2012). Academic self-efficacy has also been found to predict classroom aspirations, self-regulation, sense of school belonging, and intrinsic motivation in the classroom setting (Bartsch, Case, & Meerman, 2012; McMahon & Wernsman, 2009; Scott, Dearing, Reynolds, Lindsay, Baird, & Hamill, 2008). Students with higher academic self-efficacy have been found to put forth more effort with academic work in comparison to those with lower academic self-efficacy (Bassi et al., 2007; Fan & Williams, 2010; McMahon, & Furlow, 2008; Uwah et al., 2008). Students with low academic self-efficacy often do not achieve or even attempt higher order learning tasks in school; therefore, these students also lack positive motivation and learning (McTigue & Liew, 2011; Uwah et al., 2008). Academic self-efficacy perceptions form students' career aspirations and provide satisfaction for students (Bassi, et al., 2007). Having academic self-efficacy is critical for student learning and achievement.

Academic self-efficacy can be influenced by several factors. In one study, students with higher academic self-efficacy reported perceiving that their parents valued their schooling and had high expectations for them (Fan & Williams, 2010). Participants with higher academic self-efficacy felt more engagement and interest in their schoolwork (Fan & Williams, 2010). In contrast, students with lower academic self-efficacy were found to be less willing to learn, unable to concentrate at school, and unable to confront difficulties when they arose during school (Arslan, 2012). In a study by Thijs and Verkuyten (2008), academic self-efficacy of students was negatively affected by peer rejection and negative words. Students who received negative messages about themselves developed negative perceptions about their abilities and academic self-efficacy (Thijs &

Verkuyten, 2008). Academic self-efficacy is developed individually by the student and peers have been found to not positively influence academic self-efficacy positively (Uwah et al., 2008).

Improving General and Academic Self-Efficacy

In the literature, researchers have reported that students becoming involved in the school setting and having positive experiences and opportunities can improve self-efficacy (Alfassi, 2003; Au et al., 2010). According to Bandura's Social Cognitive Theory (1994, as cited in Alfassi 2003) improving students' educational efforts requires focus on raising students' self-efficacy through mastery experiences that will lead to building self-confidence. Students who see their own achievement as controlled by others and not themselves have higher levels of hopelessness, learning difficulties, and lower self-esteem (Au et al., 2010). Therefore, students' belief in their own capabilities to master academics affects their aspirations, interest levels, and academic achievements (Alfassi, 2003). Students who felt more responsibility and purpose in relation to graduating were found to be less likely to drop out (Knesting, 2008). Gest, Rulison, Davidson, and Welsh examined the predictive power of children's social reputations and found that these beliefs are developed at an early age (2008). Students' reputations predicted changes in individual academics, which then led to positive or negative changes in students' self-concept, effort, and performance in school. Gest et al. (2008) found that academic reputations are set in the early elementary years and stressed the importance of identifying any risk factors to later help students later in their academic careers.

During the middle school years, students are given more opportunities to take accelerated courses and get involved in athletics and school activities. According to Masten and Coatsworth (1998), middle school students can be more successful if they are given opportunities to have positive peer relations and experience academic achievements. Researchers found that how students got along with others influenced their future ability to adjust in the school setting. In a study by Pershey (2010), sixth graders' self-perceptions of greater or lesser academic ability were directly correlated with their greater or lesser test performance. These self-perceptions are developed early and impact academic learning from early childhood through adulthood (Pershey, 2010). Therefore, it is important that the school become involved with at-risk students by providing opportunities to build self-efficacy and responsibility.

School activities provide an opportunity for students to make choices on what they are going to be involved in and to build autonomy during their participation. Providing opportunities for students to evaluate and monitor their abilities and accomplishments can build self-efficacy (Pershey, 2010). According to a longitudinal study by Denault and Poulin (2009), students involved in activities during their early school years had more positive feelings about society by age 11 and reported feeling competent with academics. The researchers also found that students who did not engage in activities at the start of the study gradually became more involved by grade 11 and also were more likely to be successful academically. Having students become active during their middle school years was found to be more effective at building self-efficacy and maintaining academics than a lack of activity during middle school (Denault & Poulin, 2009).

Having students involved in activities can also help students assume more responsibility for their actions in and outside of school. According to Clouder (2009), providing opportunities for students to assume responsibility allows students to feel empowered. Clouder (2009) studied students who were given increased responsibility throughout an academic course. With the increased responsibility, students reported increased levels of self-confidence and perceptions of their capabilities. Believing they were competent was an opportunity for students to feel that their capabilities were valued and validated. The responsibility given to the students increased progressively through the course and was built on mutual trust between the mentor and the student (Clouder, 2009). The reverse can happen for students who are not given responsibility. They may come to feel disempowered and then develop feelings of risk associated with responsibility. Limited responsibility can relate to students' perceived lack of support, to limited opportunities, or to a feeling that they are being organized by others. This lack of opportunities hinders students' self-efficacy and, in turn, can decrease students' motivation to be successful academically.

Motivation

Motivation influences the academic success or lack of success of at-risk students. According to Ryan and Deci (2000), humans are "naturally curious, self-motivated, want to learn, want to apply their skills and talents, and are inspired" (p. 68). However, humans are vulnerable to various types of external and internal forces. One model that explores motivation is the Self-Determination Theory (SDT) (Deci & Ryan, 1996; Ryan & Deci, 2000). SDT holds that "individual's growth tendencies and psychological needs are the basis for self motivation and personality integration, as well as the conditions that foster

37

those positive processes" (Ryan & Deci, 2000, p. 68). According to SDT, intrinsic

behaviors are performed to help maintain the individual's intrinsic motivation and do not

occur in response to outside forces. These behaviors are performed in response to three

needs: the need for autonomy, the need competence, and the need for relatedness to

others. These needs lead to directed, persistent behaviors on the part of the individual,

according to the theory. In contrast, extrinsic behaviors occur spontaneously, and the

individual behaves this way intentionally to attain a consequence: to receive a reward, to

avoid guilt, or to gain approval (Deci & Ryan, 1996).

SDT promotes providing choices and acknowledges feelings that cause intrinsic

motivation (Deci & Ryan, 1996). According to Deci and Ryan (1996), in SDT it is

imperative to provide choices and not attempt to control an individual's behaviors. SDT

encourages integrated learning that is non-directive, where students are given

opportunities to perceive themselves as competent. In the theory, rewards do not lead the

individual to complete the task again, but rather decrease feelings of autonomy and

choice (Deci & Ryan, 1996). Extrinsic and intrinsic behaviors are linked to intrinsic and

extrinsic motivation.

The literature describes motivation as either intrinsic motivation or extrinsic

motivation (Deci & Ryan, 1996; Goodman et al., 2011; Ryan & Deci, 2000). Intrinsic

motivation is defined as the "driving force of human beings" (Goodman et al., 2011, p.

374). Intrinsic motivation applies when a student does an activity for the sole purpose of

completing the activity for himself or herself (Ryan & Deci, 2000). Extrinsic motivation

refers to the external sources of influence on a student's motivation (Goodman et al.,

2011). Students who are extrinsically motivated perform a certain way in order to attain some separate outcome or reward (Ryan & Deci, 2000).

Intrinsic motivation was found to be the strongest predictor of academic performance in a recent study, with effort a close second (Goodman et al., 2011). The study also found that high school students who had high levels of intrinsic motivation performed better academically and had higher grade point averages, in comparison to students who had only extrinsic motivation (Goodman et al., 2011). Intrinsic motivation has been associated with higher learning and personal adjustment (Deci & Ryan, 1996). Providing opportunities for students to improve their learning on their own is important when advocating for more positive intrinsic motivation.

The choices individuals make must be *their* choices, and individuals must be invested in those choices (Deci & Ryan, 1996). A body of research (Deci & Ryan, 1996; Ryan & Deci, 2000) suggests that self-motivation is increased by feelings of competence, autonomy, and being related to others. Motivation is maintained by having high feelings of these three constructs. Feelings of relatedness are important to self-motivation, for example when an individual's behaviors are encouraged and seen as important to others whom the individual values (Ryan & Deci, 2000). In addition, choices, positive challenges, informational feedback, relationships, and the acknowledgment of feelings also build motivation (Deci & Ryan, 1996). Providing choices and autonomy can lead to students feeling more leisure motivation. According to Caldwell, Patrick, Smith, Palen, and Wegner (2010), leisure motivation is what students choose to do with their free time. Unfortunately, students have options for their free time that will not help them academically, including drugs, gangs, drinking alcohol, and sexual activities (Caldwell et

al., 2010). Academic struggles can be heavily influenced by outside forces as well as reinforced in the school setting.

In a longitudinal study, students were given classroom interventions to improve motivation after facing academic challenges and pressures (Martin, 2006). Researchers found that the students were more successful when the interventions were not just in one classroom, but throughout the school building. The multidimensional approach was effective for the participants in the study (Martin, 2006). Another study, in schools where teachers participated and were trained to help, found that students reported higher levels of intrinsic motivation (Caldwell et al., 2010). Improving intrinsic motivation is difficult, as it requires more support for the student internally and externally, whether that is with academic goals or with classroom interventions.

Repeated academic failures can be detrimental to motivation and therefore to academic progress. In a longitudinal study, elementary students were studied over several grades. Students were observed in regard to their academic goals (Sideridis, 2002). The researchers found that the more weight that students gave to their goals, the more likely they were to achieve their goals. The participants had higher goal achievement when they perceived that they had control over working toward and accomplishing their goal. The authors emphasized the importance of teachers teaching the value of education to students and helping students develop appropriate, achievable goals (Sideridis, 2002).

Effective classroom interventions also have the power to improve motivation. For example, in a study that focused on changes to students' reading ability over 4 years, the findings indicated that teachers rated poor readers as having lower intrinsic motivation,

lower reading self-concepts, and lower likelihood of reading independently (Morgan, Fuchs, Compton, Cordray, and Fuchs, 2008). These students were given tutors, which did not boost motivation. The authors concluded that children at risk for reading failure tended to be less motivated to engage in tasks (Morgan et al., 2008). Also, Sideridis (2002) studied student reading skills and found that students who have lower language skills also have lower perceptions of control, less belief in their strengths, and a stronger motivation to comply with requests by those they consider to be important in their lives.

There are many challenges to providing support for students to increase their motivation. Verbal persuasion is not as powerful at improving student learning as students' experiences of being successful on their own (Bandura, 1977). As students feel less connected, they have an increased lack of responsibility for their actions and do not feel motivated to work towards their goals (Ryan & Deci, 2000). Self-regulation and personal goal making will provide the most advantageous type of motivation for these students.

According to Deci and Ryan (1996), for an individual to have self-regulation he or she must have a sense of choice and a "sense of unpressured willingness to engage in the action" (p. 165). With Self-Determination Theory, there are two types of regulation that contribute to motivation: *intro-jected* regulation and *identified* regulation. Intro-jected regulation is based on behaviors that are motivated by the pressure of feeling guilty. If an individual does not perform the behavior, he or she then feels guilt or shame. This type of motivation is less effective than identified regulation. Identified regulation occurs when an individual adopts a behavior that the individual views as important and valuable to achieving his or her goals (Deci & Ryan, 1996). Therefore, obtaining such

goals must *mean* something to the individual and must have value beyond the act of simply meeting a goal (Ryan & Deci, 2000). In addition, it is important to understand that extrinsic motivations (e. g. parents' needs and wants, socioeconomic status) may not change even with interventions to improve motivation (Caldwell et al., 2010).

Understanding what motivates a student provides opportunities to develop goals for that student. Motivation by threats of punishment is not ideal, nor is it effective with at-risk students (Foster et al., 2009). Students' perceived feelings of competence and interest are both positively correlated to ability goals (Harackiewicz & Elliot, 1993). High-achieving individuals have improved intrinsic motivation by using performance goals (Harackiewicz & Elliot, 1993). In contrast, at-risk students who rely on performance goals are not successful. Performance goals have been found to undermine intrinsic motivation for at-risk students, because they result in the perception of threats, anxiety about the goal, and the pressure of performance evaluation (Elliot & Harackiewicz, 1996). At times, students will avoid the situation at all costs and will not immerse themselves in the activity, which is called performance avoidance. These students view the activity as a potential failure, which "elicits anxiety, encourages self-protective withdrawal of affective and cognitive resources, disrupts concentration and task involvement, and orients the individual toward the presence of failure," all of which lead to performance avoidance (Elliot & Harackiewicz, 1996, p. 463). Students who avoid activities or avoid becoming invested in them are likely to withdraw and inevitably be unsuccessful in their learning.

Mastery goals are a better choice for at-risk students. This type of goal enhances interest for low-achieving students (Harackiewicz & Elliot, 1993). Mastery goals are

goals that provide challenges, promote task involvement, encourage excitement, and provide self-determination, which all lead to stronger intrinsic motivation (Elliot & Harackiewicz, 1996). These goals, unlike performance goals, are not being judged by others, just by the individual. Mastery goals provide students with a challenge and areas to improve upon. These type of goals are developed by the student and they should offer ways to improve personal standards (Harackiewicz & Elliot, 1993).

Support for This Study

This section examines the literature on how at-risk students develop academically at-risk behaviors. This section also explores how different external influences can play a role in at-risk development, as well as interventions that have been implemented to help this population become academically successful.

The literature reveals that at-risk students' motivation and engagement in school may begin to be affected as early as first grade (Morgan et al., 2008). The literature reveals that once students begin to fall behind in their early years, they continue to fall behind (Wright, 2006). Helping these students prior to high school will require an effective, ongoing evaluative process (Stanard, 2003). The research strongly demonstrates that dropping out of high school is more of a process than an unexpected event (Stanard, 2003; Ward & Kouzekanini, 2009). Some students who drop out may not display any of the risk factors, while others may show many of the risk factors at different levels of intensity (Janosz et al., 2008). Even after high school, this population of individuals remains at risk.

The impact of transitioning between schools and transitioning out of high school to college or work needs further research. According to Somers et al. (2009), problems found in the high school setting may later cause issues when at-risk adolescents are transitioning to adulthood. Transitions that are not well planned or structured can have a negative impact on all students, especially at-risk students. Preparing students to be successful at the next setting is essential. According to a study by Messersmith and Schulenberg (2009), students were more likely to graduate from high school if they had opportunities to take advanced courses. These students learned about college and career expectations and had learned how to seek out information to help themselves (Messersmith & Schulenberg, 2009). Helping students develop these skills can also help them with developing career plans.

Having a career plan can effectively motivate and build self-efficacy for at-risk students. Some students were more likely to have a career goal than other at-risk students. According to Fleming, Woods, and Barkin (2006), students who had a mother working were more likely to have a career goal, while students who liked one thing about themselves were two times more likely to have a career goal. In another study, researchers found that boys became more realistic in regards to their career goals as they got older (Cook, Church, Ajanako, Shadish, Kim, & Cohen, 1996). Those students surveyed who had a biological father in their lives also had higher career aspirations and expectations. The elementary students surveyed believed that more schooling and doing well in school would pay off for them (Cook et al., 1996). Unfortunately, most at-risk students do not have the adequate support, resources, or a career goal.

The career goals of at-risk students need further study, as many of these goals are unrealistic or unattainable. In a study by Somers et al. (2009), ninth grade students in a dropout prevention program were surveyed on their career goals. These students believed that 4-year school was not realistic, and the majority was unclear on the costs of college. In addition, participants reported that they wanted careers in entertainment and the media, which are unlikely for the majority of students (Somers et al., 2009). To help students create more realistic and effective career goals, a better understanding of the impact that school staff and parents can have with at-risk students is required.

The research shows that more involvement from the school community, teachers, and parents can be empowering for this population of students. Students who feel like they belong in the school community tend to do better academically (Knesting, 2008; Lehman et al., 2001). Having teachers and schools look at this problem as a big-picture problem instead of employing several small intervention strategies may be the first step (Wright, 2006). The literature provides many examples of how students are influenced by teachers, school staff, and parents, but current research does not illuminate how some students with all these supports in place continue to fail academically. According to Knesting (2008), schools can positively influence students' ability to persist academically, yet high school dropouts are on the rise. The most effective means of reaching these students remains unclear.

Implications for Counseling and Counselor Education

This chapter has reviewed the literature related to at-risk students, self-efficacy, motivation, and the overall effect of external and internal forces on at-risk students by the

time they reach high school. The purpose of this section was to explore the implications that this research will have on counseling and counselor education.

In the counseling profession there is a need for empirically driven information, as there is a need for more empirical data on how best to help at-risk students. To understand best practices with this group, a better understanding of how at-risk students view their own academic successes and failures is necessary (Alfassi, 2003; Brigman, Webb, & Campbell, 2007). Having students recognize their needs will be important when working to improve the learning environment for these students (Kayler & Sherman, 2009). The roles of schools and of the staff in the schools also need further study.

School officials cannot address the needs of at-risk students without a better understanding of this population. Having more research on how schools can utilize information about at-risk students' self-efficacy and motivation can be fundamental to developing effective programs (Alfassi, 2003). Understanding the roles of the school and how to limit negative social problems would be vital as well to empathize better with these students (Patrick, Lee, & Larimer, 2011). In addition, it would be beneficial to counselor education research to understand the role of the school counselor specifically with at-risk students. Identifying the needs of at-risk students and assessing the importance of the school counselor's role can provide helpful information for teaching future school counselors (Trusty, 2001). Examining the school counselors' role as well as the individual student's own career plans may be beneficial to better understanding the whole student.

The literature emphasized that students learn at a young age whether they will excel at school or if they will struggle. The impact of testing and state standards on individuals' academic perceptions of themselves needs to be explored (Pershey, 2010). In a study by Ward and Kouzekanini (2009), students that had high-stakes state tests were 25% more likely to drop out of high school. In another study, 75% of eighth grade participants believed they would go to college, but by high school only 30% of these students reported taking college prep courses (Trusty, 2001). There is a clear disconnect for at-risk students. Either students do not understand the scope and sequence of preparing to go to college or there are other factors. High schools are not providing imperative information to at-risk students. Having unrealistic aspirations and expectations can be detrimental to at-risk students, and more study of how this information is being presented to this population is needed.

The literature revealed a variety of programs and academic strategies for working with these students, yet there is not a clear path to helping this population. The need is evident for interventions that will be culturally specific, flexible, and understandable (Stanard, 2003). Alternative schools are not heavily researched in regards to their effectiveness (Fleming et al., 2006). Research showed that students who had a job were 5 times more likely to have a career goal (Fleming et al., 2006), yet it is not clear whether having a job as a student really has an impact on a student's future career. Each of these programs and strategies must be studied further.

In addition, there are gaps in the literature on the impact of general self-efficacy, academic self-efficacy, and motivation for at-risk students. How these students come to understand their power, equity, and engagement in learning is a mystery (Zyngier, 2007).

47

A better understanding of how to help at-risk students develop a sense of belonging in their school settings and develop their own positive learning identity is needed. The question of how students can accomplish this and what type of support is necessary also requires further examination (Griggs, 2010; Zyngier, 2007).

In order for counselors to see at-risk students as a unique group that needs further research, counselor educators must better understand this population as well. Counselor educators have the responsibility to recognize this population as worthy of its own research as a diverse group. This population is not explored in depth in research, yet it is a population that school counselors and even community counselors encounter on a daily basis. The counseling field needs to look at this population with a different lens and realize that there is a need for more research on how this population functions before trying to solve it with a program or a model.

The counseling education field has researched general self-efficacy, academic self-efficacy, and motivation in depth, yet no one has yet truly explored the impact these factors have on at-risk students. Researchers have studied how students develop these factors, but there is little research to explain why some students do not overcome their own lack of general self-efficacy, academic self-efficacy, and motivation, even with some support. For all counselors that work with at-risk students, from elementary school to the work force, this research is vital.

Summary of Chapter Two

This chapter included an exploration of the literature related to at-risk students and the impact of general self-efficacy, academic self-efficacy, and motivation on this

population. At-risk students were defined, as were general self-efficacy, academic self-efficacy, and motivation. Motivation was considered in terms of both extrinsic and intrinsic motivation, and the role these types of motivation play with at-risk students was examined.

In addition, this chapter explored the role of parents, teachers, school, and individual students in the development of at risk students. Types of programs and interventions that have been created to help this group were discussed as well. The chapter also highlighted gaps in the literature on this unique population. Finally, the implications for the field of counselor education and counseling were examined.

This review of the literature brought to the forefront the struggles that at-risk students face daily in the school setting. With several external and internal struggles, this population faces many academic hardships that make it hard to be successful. In particular, the fact that these students continue to struggle, even with support, indicates the need for additional study. More attention must also be paid to the relationship of external and internal forces to individuals' general self-efficacy, academic self-efficacy, and motivation. Being successful academically plays a role beyond the school setting and needs to be examined empirically to help this population. These findings have helped develop the research questions and methodology that are focused on in Chapter 3.

CHAPTER THREE:

RESEARCH DESIGN AND METHODOLOGY

Introduction

In Chapter 3, I will describe the research design and methodology that will be developed in this study. This chapter will begin with the restatement of the problem. Next, the chapter will discuss the methods and research design. This will include the research setting and participants, instruments, and variables in this study. The primary purpose of this research is to help improve services for at-risk students in the high school setting, and to contribute to the research on working with at-risk students in similar settings to improve academic success and retention. By learning more about these students, counselor educators can prepare school counselor trainees to be effective with this specific population. This chapter will also include an explanation of the research questions and data analysis.

Restatement of the Problem

Students who are considered at-risk often struggle throughout their academic career. This struggle is often reflected in the failing of more than one course and, at times, several courses. (Alfassi, 2003; Wright, 2006). Understanding some of the causes for multi-course failure is a critical component to assisting at-risk students. Currently, the literature focuses on the academic causes of course failure, yet there is no currently held connection between these failures and students' perceptions of their general self-efficacy,

academic self-efficacy, and motivation. A better understanding of at-risk students'

perceptions and academic experiences will enable school professionals to assist these

students in academic settings. This quantitative project has begun to close the gap

between at-risk students' perceptions of their academic self-efficacy, their motivation,

and their general self-efficacy, on one hand, and how these factors may or may not relate

to the number of course failures.

Method

This study utilized a predictive quantitative method to examine at-risk students'

general self-efficacy, motivation, and academic self-efficacy and the impact of these

factors on course failure. Quantitative research is an investigation that explores and

quantifies measurable variables, such as attitudes and behaviors (Brown-Howard, 2007).

These occurrences are measured through statistical analysis and numerical

representations of observations (Gall, Gall, & Borg, 2003). Quantitative research

examines populations and samples and generates data to represent those variables

(Brown-Howard, 2007). Quantitative research was used in this study because the key

variables for this study have been identified in the literature to possibly relate

individually to academic failure. In addition, quantitative research was the best method

for this study as relationships between the variables are unknown and using this type of

statistical analysis will help to discern what type of relationship, if any, exists between

the variables. Data were collected through a variety of questionnaires.

For this quantitative study, a survey was used as a source of measurement. A

survey is a proper method of collecting data for descriptive and exploratory studies

(Mertler & Vannatta, 2010). Surveys are considered best suited for measuring attitudes and obtaining personal and social facts, as well as beliefs (Brown-Howard, 2007). Gall et al. (2003) stated "The purpose of a survey is to use questionnaires to collect data from a sample that has been selected to represent a population to which the general findings of the data analysis can be generalized" (p. 222). This emphasis on population generalization is a characteristic of quantitative research.

Three questionnaires were utilized to collect data for this study. The first questionnaire was the General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995), which is used to measure individuals' general self-efficacy. The second questionnaire was the Academic Self-Efficacy Scale (Hale, 2012; Moilanen, Hemond-Reuman, Crump, & Kenny, 1991), which is used to measure students' perceptions of their academic abilities. The third questionnaire was the Academic Motivation Scale (Broussard, 2002; Halawah, 2006), which measures students' perceptions of their academic motivations.

Research Design

This investigation involved data collection and analysis of students in grades 10 through 12 who are considered at-risk because they have failed at least two classes during their high school career. Students who participated in the study were only from grades 10-12. Because this study took place during the fall term, 9th grade students had not had the opportunity to fail a high school course. Students whose failed classes had occurred before high school were not considered, as these classes were not reflected on their high school transcripts. The data were collected from three different schools in the Midwest and analyzed by the researcher. The following section addresses the setting, the

participants, the instruments that were used, and the variables developed for this investigation.

Settings and Participants

Participants were drawn from the total population at all three schools involved in the research, based on whether they had failed more than one class during their time in grades 9 through 12. Failing a class is one of the significant factors that many at-risk students share (MacMath et al., 2009). When a student fails more than one class, there is a pattern developing and, in many schools, this can label the student at-risk (Alfassi, 2003). For the purpose of this study, only courses failed during 9th through 12th grade were considered as high school. School counselors selected participants using a data pull through their school system. Counselors were instructed to select any students who had failed two or more classes during high school.

The high schools used for this study are located in urban and rural settings in the Midwest. The first school, School One, is in an urban setting and serves all or parts of seven communities in the suburbs of a large city in the Midwest. The students at this school come from diverse backgrounds (e.g. educationally, economically, religiously). This school is a 3-year public high school with 1,890 students in grades 10-12. The school is on a four-period block schedule. One credit is earned per 9-week term. Eighty-three percent of students attend a postsecondary institution. The student demographic profile is as follows: less than 1% American Indian, 5% Asian, 6% Hispanic, 20% African American, and 69% Caucasian.

Participants for this study from School One were identified as students who had failed two or more classes at some point during high school. A school counselor identified students who had failed two classes or more by running data in their school computer systems.

The second school, School Two, is a smaller rural school and is the only school in the community. It serves grades K-12. The K-6 students use one part of the building, and grades 7-12 use the other part of the building, though they share common areas, such as the cafeteria, commons, gymnasiums, and auditorium. Although the community is small, the school serves its student population and also an open enrollment population that makes up 30% of the student population. There are approximately 370 students in grades 7-12. The school functions on a seven-period day, with a daily advisory program. Seventy-six percent of the high school student population attends a postsecondary institution following high school. In addition, there is limited cultural diversity among students but a wide range of economic diversity within the community. The student demographics include fewer than 1% each of American Indians, Asians, and African Americans; 4.5% are identified as Hispanic, while 93.5% are identified as Caucasian.

Participants chosen from School Two were also those who had failed two or more classes during their high school career. These students were chosen by their school counselor, using a data pull on the schools' computer system. Students in the study were from grades 10-12, as with School One.

The third school, School Three, is an urban school setting that serves students from three counties and has an enrollment of 1,900 students in grades 9-12. The school is

located in the suburbs of a large Midwestern city. The school is on a seven-period

schedule, and students can earn up to 14 credits per year. Sixty percent of students attend

a postsecondary institution. The student demographic profile is as follows: 1.9%

American Indian, 10.2% Asian, 11.4% Hispanic, 5.4% African American, and 71.0%

Caucasian. School Three is my place of employment. Participants selected for the study

are not on my student caseload, and another certified school counselor administered and

collected the survey results.

Participants from School Three were in grades 10-12 and were selected based on

having failed two or more classes and students in grades 10-12 grades. These students

were chosen by their school counselor, not the primary researcher, by running a data pull

on the schools' system.

In all three school settings, the school counselors created a list of students who

had failed two or more classes by using their specific computer program at their school to

pull the data list of students in grades 10-12 that had failed two or more classes during

high school. School counselors were also instructed to not include students that were in

the special education program. Once the list was created at each school, the school

counselor then met with students individually to ask them to be a participant. Students

over the age of 18 were given the consent form and the survey to complete if they agreed

(see Appendix F). Students who under the age of 18 were given the parent consent form

for their parent or guardian to sign (see Appendix E). Once the consent form was

returned, students were asked to sign the assent form and then complete the survey.

Student participants were asked to complete these surveys during their study halls to

avoid missing class time.

Instruments

  Demographic Questionnaire. Participants completed a demographic

questionnaire indicating their grade, gender, and ethnic background. Individuals also

identified their primary guardian in their home. Participants were asked about whether

they worked outside of school and if a family member had dropped out of school. The

Demographic Scale consisted of 8 questions (see Appendix A). I adapted this survey

from Kincaid (2010).

  General Self-Efficacy Scale. The General Self-Efficacy Scale (GSE) is a 10-item

scale designed to assess a general sense of self-efficacy with the aim of predicting the

ability to cope with daily hassles and to adapt after experiencing stressful life events

(Schwarzer & Jerusalem, 1995). Participants give responses on a 4-point scale, and the

sum of the responses to all 10 items yields the final composite score, ranging from 10 to

40. Cronbach's alpha have ranged from .76 to .90 with the majority in the high .80s. For

example, Scholz, Gutierrez, Sud, and Schwarzer (2002) found that the internal

consistency reliability of the scale ranged from .75 to .91 across numerous studies and

that the self-efficacy scale was positively related to effective coping, optimism,

perception of challenge, and self-regulation. The GSE has been used internationally and

is a suitable indicator of the quality of life of participants at any point in time

(Luszczynska, Scholz, & Schwarzer (2005); Steese, Dollette, Phillips, Hossfeld,

Matthews, & Taormina (2006). For the purpose of this research, all 10 questions were

asked in the survey (see Appendix B).

Academic Self-Efficacy Scale. The Academic Self-Efficacy Scale (ASES) is a

24-item self-report instrument that assesses a student's perceived ability in academic

skills and strategies (Hale, 2012; Moilanen, Hemond-Reuman, Crump, & Kenny, 1991).

Students rate items on a 4-point Likert-type scale ranging from *no confidence* (1) to

complete confidence (4). Examples of 24 statements participants are asked to rate are "I

focus on an examination until I've finished every question" and "Complete all homework

assignments." The items are summed to compute a total score that ranges from 24 to 96;

higher scores indicate higher levels of academic self-efficacy (See Appendix C).

  Motivation Survey. The Motivation Survey is a 10-item self-report instrument

that assesses an individual's levels of motivation (Broussard, 2002; Halawah, 2006).

Participants rate items on a 5-point Likert-type scale ranging from *Strongly Disagree* to

Strongly Agree. The scale has internal reliability of .52 (Halawah, 2006). Examples of

statements participants are asked to rate are "I like difficult problems because I enjoy

trying to figure them out," and "I would rather just learn what I have to in school." For

the purpose of this study, all 10 questions were used and the score can range from 10 to

50 (See Appendix D).

Variables

  The independent variables for the study were the scores on the measure of the

General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995), which measures

participants' perceived general self-efficacy, and the Academic Self-Efficacy Scale

(Hale, 2012; Moilanen et al., 1991), which measures participants' perceptions of

academic self-efficacy. In addition, motivation was an independent variable for this study

and was measured with the Motivation Survey (Broussard, 2002; Halawah, 2006). The dependent variable was the number of classes a participant failed.

Data Analysis

Research Question

How do at-risk students' perceptions of their general self-efficacy, their academic self-efficacy, and their motivation predict the number of courses failed?

Research Hypothesis

H_o: At-risk students' perceptions of general self-efficacy, academic self-efficacy, and motivation do not predict the number of courses failed.

H_a: At-risk students' perceptions of general self-efficacy, academic self-efficacy, and motivation are predictive of the number of courses failed.

The research question was answered using a simultaneous multiple regression. A multiple regression analysis was used to predict the value of classes failed (dependent variable) by exploring the students' perceptions of general self-efficacy, academic self-efficacy, and motivation (independent variables). Multiple regression is "an extension of a simple linear regression involving more than one independent variable or predictor variable" (Mertler & Vannatta, 2010, p. 161). The independent variables are continuous and the literature does not make clear whether the independent variables are related. By using a multiple regression analysis, it can be determined the extent to which the perception of general self-efficacy, academic self-efficacy, and motivation predict the

number of classes the at-risk students failed. Statistically, I expect to find that the dependent variable is related to all three independent variables.

Data Collection Procedures

The purpose of this section is to describe the data collection procedures that were used to examine the research question. The data collection began with participants receiving a consent form for parents and guardians to sign, as well as an assent form for the participants (see Appendices E and F). Participants over the age of 18 were not asked for a parent or guardian signature. Once assent and consent forms were collected, participants received and completed the survey.

In all three schools, the school counselors asked students to participate and complete the study during their study hall time. The survey included the Demographic Questionnaire, the General Self-Efficacy Scale, the Academic Self-Efficacy Scale, and the Motivation Survey. Questionnaires included directions for participants to follow. Participants received as much time as needed to complete the survey during the school day at their school setting.

School counselors administered the surveys in all three schools. I worked with each counselor individually to explain the study, as well as the procedures for maintaining the anonymity of the participants and the security of the data collected. I did not administer the surveys directly to any participants, but gathered the data upon completion of the survey administrations from the school counselors in the schools.

Methodological Limitations

There are some limitations to the study. Concerns about my involvement with School Three may be considered a limitation, as it is my workplace. However, I did not have any contact with participants, as other certified school counselors administered all the surveys in all three settings.

Another limitation is that the participants were adolescents and were asked to answer questions about their own perceptions of themselves. Adolescents may have overinflated or downplayed their responses. To combat this limitation, in the direction sections on the questionnaires, participants were asked to answer each question the way that he or she felt most of the time.

The final limitation of the study is that there was a small sample size due to the need for parental or guardian consent for each participant to take the survey, except those who were already 18 years of age. Collecting consent forms prior to taking the survey caused several students to be unable to participate in the study.

Summary of Chapter Three

At-risk students are repeatedly failing classes, and this population is not well understood. In this study, I sought to understand the effect that general self-efficacy, academic self-efficacy, and motivation have on students passing their classes. This chapter described the research design and methodology that was completed in this study. The quantitative research design, research setting and participants, instruments, variables, research questions, and data analysis were included. Chapter 4 will present the findings and discussion.

CHAPTER FOUR: FINDINGS

Introduction

The purpose of this chapter is to share the findings from the data collection. This will include a description of the procedures used for data collection and data analysis. This investigation involved data collection and analysis of students in grades ten through twelve that are considered at-risk because they have failed two or more classes during their high school career. Students who participated in the study were only from grades 10–12, as 9th grade students did not have an opportunity to fail a high school course, given that data collection for this study took place during the first term of the school year. The data were collected and analyzed by the researcher from three different schools in the Midwest. The aim of this quantitative research study was to determine whether at-risk students' perceptions of their general self-efficacy, their academic self-efficacy, and their motivation were predictive of the number of classes failed.

Data Collection and Analysis

The researcher acquired permission from the Institutional Review Board at Minnesota State University, Mankato, to conduct survey research with human subjects. With Institutional Review Board permission, the school counselors in each of the school settings were asked to obtain a list of students who qualified for the study, as obtained through each school's electronic data system. School counselors were trained on the survey administration and were asked to exclude students who were in the special

education program. Students who failed two or more classes in grades 10–12 were called

individually to the counselor's office to review the study to see if they wanted to

participate. Participants under the age of 18 were asked to obtain permission from a legal

guardian to partake in the survey (see Appendix E). Before having access to the

instruments, all participants were asked to complete the participant assent form (see

Appendix F). Respondents then were given the survey in the counseling office area. The

instruments used for this study were the General Self-Efficacy Scale (Schwarzer &

Jerusalem, 1995) (Appendix B), Academic Self-Efficacy Scale (Hale, 2012; Moilanen et

al., 1991) (Appendix C), and the Motivation Scale (Broussard, 2002; Halawah, 2006)

(Appendix D). In addition, participants were given a demographic questionnaire

developed by the researcher and based on Kincaid (2010) (Appendix A). Completion of

the survey took approximately 10–15 minutes. After students completed the study, the

researcher collected the consent and assent forms.

Description of Participants

There were 450 students that met the criteria for the study in the three schools. Of

the 450 participants, 215 surveys were returned, a 47% return rate. The return rate from

each school was: School One: 30%; School Two: 40%; and School Three: 72%. Number

of classes failed ranged from 2 to 28 classes with a mean of 6.4 classes and a standard

deviation of 4.8 (see Table 2).

Male participants numbered 129 (60%) and females totaled 86 (40%). In regards

to grade level, 165 (77%) were seniors and 50 (33%) were in grades 10–11. The sample

was moderately diverse in its racial/ethnic identification, with students identifying in the

following ways: Caucasian ($n = 99$, 46%), Hispanic ($n = 48$, 21%), and African American ($n = 35$, 16%). Eighteen participants described themselves as Asian (8%); 3 participants identified as Russian (1%); 4 participants identified as Native American (1.8%); 3 participants identified as Somali (1%); and 5 participants listed other descriptions (2.3%) (see Table 1). The general population of the schools is as follows: School One is 69% Caucasian, 20% African American, 6% Hispanic, and 5% Asian; School Two is 93.5% Caucasian, 4.5% Hispanic, and fewer than 1% of American Indian, Asian, and African American; School Three is 71% Caucasian, 11.4% Hispanic, 10.2% Asian, 5.4% African American, and 1.9% American Indian.

Other demographic data included information about whether the participant held a job. One hundred eleven participants (51.6%) reported working during the week and 104 (48.4%) responded that they did not work. Participants were also asked whether any family member of theirs had dropped out of high school. One hundred thirty respondents (60.5%) reported no and 85 (39.5%) reported yes, that a family member had dropped out of school. Participants were also asked to identify their adult at home. Ninety-four participants (43.7%) listed both Mother and Father as adults at home. Eighty-six participants (40%) reported Mother as their adult, 20 participants (9%) listed Father. Fifteen participants (6.9%) listed other adults such as Grandparent, Sibling, Aunt/Uncle, Guardian, Foster Parent(s), and None. Respondents' demographic data is reported in Table 1.

Data Analysis

Statistical Package for Social Sciences (SPSS) software (Version 20) was utilized for the statistical analysis of the study. The software was used to screen the data and to

conduct statistical analysis. Simultaneous multiple regression was used to determine if general self-efficacy, academic self-efficacy, and motivation of the participants predicted the number of courses failed. The researcher also assured that the assumptions for a multiple regression were met. The means, standard deviations, range of scores, skewness, and kurtosis of the variables were obtained to test the assumptions. The means were calculated for each variable to be compared for statistical significance. Several graphs (e.g., scatterplots, histograms, and line graphs) were created to visually describe and explore the data. These graphs were viewed to explore whether assumptions of normality were met, as well as to look for any noticeable patterns with the residuals, the data points. For this research study, statistical significance was set at an alpha level of .05 for all analyses, as an alpha level of .05 to prevent both Type I and Type II errors (Howell, 2007).

The Cronbach's alphas for the three surveys were: General Self-Efficacy Scale: .728; Academic Self-Efficacy Scale: .906; and Motivation Survey: .641. The General Self-Efficacy Scale's Cronbach's alpha have ranged from .76 to .90 (Scholz et al., 2002) and in this study the scale was found to be within this range. There is no found internal consistency reliability for the Academic Self-Efficacy Scale. In addition, the Motivation Survey has been found to have an internal consistency reliability of .52 (Halawah, 2006) and in this study the Cronbach's alpha for this scale was found to be .641, which is under the .7 cutoff value (Nunnaly, 1978).

The variables in this study included three independent (i.e., predictor) variables and one dependent (i.e., outcome) variable. The independent variables were the following: general self-efficacy, academic self-efficacy, and motivation. The dependent

variable was the number of classes the participant failed. The average amount of courses failed was 6.4, ranging from 2 to 28, with a standard deviation of 4.82.

Overall, there was no significance found overall with the three scales. In the study, the mean overall scores of the three independent variables were: General Self-Efficacy: 31.102 out of 40 possible; Academic Self-Efficacy: 65.6736 out of 96 possible; and Motivation: 34.398 out of 50 possible (see Table 3). The standard deviations of the three surveys were: General Self-Efficacy: .34693; Academic Self-Efficacy: .48035; and Motivation Survey: .46291.

A correlation test of the three variables was also run. The three independent variables were found to be significantly related; however, this significance test is sensitive to larger sample sizes, such as the sample size in this study (see Table 4).

Effect size was determined for this study by R Square, the squared multiple correlation coefficient (or the coefficient of determination). This value indicates the proportion of variance in the dependent variable (number of courses failed) explained by the combined predictor scores (general self-efficacy, academic self-efficacy, and motivation).

Assumptions of Multiple Regression

A multiple regression was used to test the hypothesis for the study. The following are the major assumptions of multiple regression: sample size, normality, linearity, homoscedasticity, and independence of residuals, outliers, multicollinearity, and singularity (Howell, 2007).

Sample size. The sample size is important for multiple regression, because if a sample size is not large enough the result will not generalize with other samples. The formula used to calculate sample size for this study was: $N > 50 + 8m$ (where m = number of independent variables (Tabachnick & Fidell, 2007). With this formula, the number of independent variables was taken into consideration. In this study there were three independent variables; therefore, 74 cases would be required. The sample size of this study is 215, which exceeds the 74 required cases.

Normality, linearity, homoscedasticity, and independence of residuals. These assumptions refer to aspects of the relationships of the variables and the distribution of scores (Howell, 2007). Normality refers to whether the residuals are normally distributed about the predicted dependent variable scores. Linearity refers to residuals that have a straight-line relationship with predicted dependent variable scores. Homoscedasticity refers to when the data meets the assumption of equal variance for residuals, which is when the residuals have constant variance about the regression line. Having a model that is independent of error terms is the independence of residuals.

In this study, these assumptions were analyzed from the residual scatterplots (e.g., Normal P-Plot of Regression and Residual Scatterplot) that were developed as part of the multiple regression analysis. The Normal P-Plot revealed that the residuals deviate from the reference line and appeared to assume a noticeable trend; the data did appear to violate the assumption of normality. In order to address this issue with normality, a logarithmic transformation was applied to the dependent variable (number of courses failed) in order to make the data normally distributed. A scatterplot of the standardized

residuals plotted against their predicted or "expected" values was then generated to explore the assumptions of linearity, homoscedasticity, and independence of residuals.

In the scatterplot for the data, the data points do not represent any pattern or shape and appear to be randomly distributed about the regression line, therefore meeting the assumption of homoscedasticity. If the data were conforming to non-constant variance, heteroscedasticity would be apparent in the scatterplot as the data points would form a funnel shape (Howell, 2007). Assumptions of independent residuals and linearity were met as the data points on the scatterplot do not represent any type of recognizable pattern and appear to be distributed randomly about the regression line.

Multicollinearity and singularity. Multicollinearity and singularity describe the relationship between variables (Howell, 2007). When variables are highly correlated, multicollinearity occurs (r = .9 and above). When one independent variable is a combination of other independent variables, singularity occurs. Tolerance and Variance Inflation Factor (VIF) scores were run to meet this assumption. In this study, the tolerance values (.700, .667, .632) and VIF values (1.429, 1.499, 1.582) revealed that there were no concerns: since the VIFs were close to the value of 1, there is weak variation inflation. Thus, there is no violation of multicollinearity (see Table 5).

Outliers. It is essential to check the data for any outliers, or cases that are not explained well by the model (Howell, 2007). The data were explored in regard to this assumption as part of the initial screening process of the data through frequencies and scatterplots. Outliers were found in the study prior to the log transformation, which made the data more approximately normal and removed the outliers. Following the

transformation, there were no outliers to report and, therefore, there were no differences

to report between the obtained and predicted dependent variable scores.

Research Question

The research question for this study asked, "How do at-risk students' perceptions

of their general self-efficacy, their academic self-efficacy, and their motivation predict

the number of courses failed?"

Ha: The alternative hypothesis was that at-risk students' perceptions of general

self-efficacy, academic self-efficacy, and motivation will significantly predict the number

of courses failed.

SPSS was used to conduct a multiple regression to answer the research question.

The variables in this study were continuous. The dependent variable was number of

courses failed and the independent variables were the following: general self-efficacy,

academic self-efficacy, and motivation.

Research Findings

A multiple regression analysis was conducted to determine whether or not the

three predictor variables—general self-efficacy, academic self-efficacy, and motivation—

predicted the number of courses failed. There are many ways to compute multiple

regression (i.e., simultaneous, hierarchical, and stepwise) that are used for different

analyses (Howell, 2007). Due to limited research regarding the relationship between

general self-efficacy, academic self-efficacy, and motivation with at-risk students, the

independent variables were analyzed with a simultaneous multiple regression, rather than

hierarchical or stepwise. With this type of analysis, all the independent or predictor

variables are simultaneously entered into the analysis.

The findings of this multiple regression analysis are divided into three parts:

model summary, ANOVA, and coefficients (Howell, 2007). The model summary is also

divided into three parts: multiple correlation (R), squared multiple correlation (R^2), and

adjusted squared multiple correlation (R^2adj). These indices indicate the level that the

independent variables predict the dependent variable. R is the multiple correlation

coefficient and is calculated by taking the square root of the coefficient of determination

(R^2). This value indicates the degree of correlation between all of the predictors (general

self-efficacy, academic self-efficacy, and motivation) and the dependent variable

(number of courses failed). R Squared is the squared multiple correlation coefficient (or

the coefficient of determination). This indicates the proportion of variance in the

dependent variable (number of courses failed) explained by the predictor variables

(general self-efficacy, academic self-efficacy, and motivation). Adjusted R Squared is the

adjusted squared multiple correlation coefficient. As previously mentioned, R Squared

indicates the proportion of variance in the dependent variable predicted by the predictor

variables. However, as more predictors are added to the model, they will account for

more variance in the dependent variable simply by chance (Howell, 2007). Adjusted R

Squared adjusts the R Squared coefficient to account for this inflation. In general,

adjusted R Squared is lower than the R Squared. In this study, $R = .161$, $R^2 = .026$, and

R^2adj $= .012$ (see Table 5). In the data set using the R^2 value, .026 or 2.6% of the

variation in number of courses failed is accounted for by including general self-efficacy,

academic self-efficacy, and motivation in the model, which is a weak relationship.

The Analysis of Variance (ANOVA) test for multiple regression tests whether or not there exists a coefficient for one of the independent variables that is statistically significantly different from 0 (Howell, 2007). The F test is run to examine if there is a linear relationship between the independent variables and the dependent variables, as well as to test the significance of R (Howell, 2007). If the p-value is less than 0.05, there is at least one coefficient that is statistically significantly different from 0; otherwise, there is not. In the study, the p-value is 0.137 and none of the coefficients (general self-efficacy mean, academic self-efficacy mean, and motivation mean) in the regression model were found to be statistically significantly different from 0. The ANOVA in this study was not significant (F = 1.860, df = 3, 211, p = .137 (see Table 5).

The coefficient table reports the following: the unstandardized regression coefficient (B), the standardized regression coefficient (beta or β), p-values, and three correlation indices (Howell, 2007). B, the unstandardized regression coefficient, indicates the average change in the dependent variable associated with a 1-unit change in the independent variable when the other independent variables are controlled for. B is used to create the regression equation. A positive B-value means a positive change in the dependent variable, when the independent variable increases, whereas the opposite is true with a negative B-value that would indicate a negative change in the dependent variable when the independent variable increases. For example, in this study, the average number of courses failed decreases by 0.065 for every 1-unit increase in the mean general self-efficacy. The B-values for this study were -.065 for general self-efficacy, -.150 for academic self-efficacy, and -.069 for motivation (see Table 6).

Beta values (β) or the standardized regression coefficients are used to create prediction equations for standardized variables. By adjusting the unstandardized regression coefficient by the standard deviations of the independent and dependent variables, the standardized regression coefficient is yielded. Beta values are based upon z-scores with a mean of 0 and standard deviation of 1. In this study, academic self-efficacy was the largest in absolute value (β = -.108), indicating that it made the strongest unique contribution to the dependent variable (see Table 6).

The p presents the significance of the B values, Beta values (β), and the subsequent part and partial correlation coefficients. The p indicates if each variable is making a statistically significant contribution to the equation ($p < .05$). In this study, none of the independent variables made a significant contribution to the prediction/dependent variable (see Table 6).

Three correlation coefficients were also displayed in the coefficients table, which include the following: the zero-order, partial, and part correlation coefficients. The zero-order correlation efficient indicates the magnitude and direction of the association between two variables and is standardized in that its value ranges from -1 to 1. The closer the coefficient is to 0, the weaker the relationship between the two variables. For this study, the values for general self-efficacy, academic self-efficacy, and motivation were -.088, -.158, and -.121, respectively. The partial correlation coefficient is the square root of the squared partial correlation, depending on the sign of the coefficient estimate. If the coefficient estimate is negative, then the partial correlation is also negative. In this study, the partial correlation coefficients were -.004, -.107, and -.040, respectively, for general self-efficacy, academic self-efficacy, and motivation. The part correlation coefficient

71

represents the correlation between the independent variables and the dependent variables, after partialing out one of the independent variables. This squared part correlation shows how much the coefficient of determination R^2 will decrease if that variable is removed from the regression equation. Values for all three correlation coefficients can be found in Table 6.

Moderated Regression

As the results from the multiple regression in this study did not show a relationship between the variables, the primary researcher was interested in exploring what moderators may impact the variables. In order to explore the data further, the primary researcher decided to explore the different variables that were collected from the demographic survey. A moderated regression tests the relationship between the dependent and independent variable(s) change as a function of the level of a third variable, known as a moderator (Howell, 2007). For this study, several moderators were considered, including: senior vs. non-senior, gender, students who worked compared to those that did not work, and having a family member that dropped out of school.

Logarithm transformations were run on the dependent variable (number of classes failed) on all the moderated regressions to fix the trend of residuals to meet the assumption of normality. The natural logarithm was applied to each observation of the number of courses failed to correct this assumption. First a moderated regression was run using class (senior or non-senior) as a moderator. The dependent variable remained the number of classes failed. The multiple correlation (R) was .236, the square multiple correlation (R^2) was .056, and the adjusted squared multiple correlation (R^2adj) was .024.

According to the data, the independent variables again did not significantly predict the outcome of the dependent variable (F = 1.745; df = 7, 207; p = 0.100). In this model, the interaction term senior and academic self-efficacy was significant at a .05 significance level (p = .046). Because this interaction term was significant and has a coefficient estimate of -.0537, in general students who are seniors fail fewer classes if they have a higher academic self-efficacy score compared to students who are not seniors (see Table 7 and Table 8).

The next moderated regression explored the moderator of gender (male vs. female). This analysis generated an R-value of .247; R^2 was .062 and R^2adj was .029. The F-test determined no significant relationship between the independent variable and dependent variable (F = 1.915; df = 7, 207; p = .069). In this model, none of the coefficients were found to be significant at a .05 significance level. This indicates that gender does not act as a moderator on the relationship between the dependent variable (number of classes failed) and the three independent variables: general self-efficacy, academic self-efficacy, and motivation (see Table 9 and Table 10).

A moderated regression was also run with the moderator of working student or non-working student. This analysis generated an R-value of .245; R^2 was .060 and R^2adj was .028. The ANOVA determined that the independent variables do not significantly predict (p < .05) the outcome of the dependent variable (F = 1.881; df = 7, 207; p = .074). Academic self-efficacy was found to be significant, however, at a .05 significance level (p = .047) and had an estimate of -.322. Since the coefficient estimate for the interaction (Work and Academic Self-Efficacy) was not significant, it cannot be generalized that whether or not a student works is a moderator for the relationship of academic self-

efficacy scores and the number of classes failed. Because the coefficient for the model with no moderators for academic mean was not significant, it is not likely that the significant coefficient has meaning in this study. However, the coefficient for the demographic classifier "Have you worked?" is significant at a .05 significance level ($p = .046$) with an estimate of 1.763. It can be interpreted that the average number of classes failed is shifted based on whether the at-risk student worked or not. Students who worked on average failed more classes than those who have not worked (see Table 11 and Table 12).

The last moderator that was explored with the data was whether the student had a family member who had dropped out of school or not. The data analysis generated an R-value of .229; R^2 was .052 and R^2adj was .020. From the F-test, it was found that the independent variables did not predict the outcome of the dependent variable of the number of classes failed (F = 1.629; df = 7, 207; $p = 0.129$). In this model, none of the coefficients were found to be significant at a .05 significance level. Therefore, having a family member drop out of school does not act as a moderator on the relationship between the dependent variable (number of classes failed) and the three independent variables: general self-efficacy, academic self-efficacy, and motivation (see Table 13 and Table 14).

Summary of Chapter Four

This chapter describes the steps taken to prepare the data for analysis as well as the findings for this research. Multiple regression was conducted to answer the research question which examined whether general self-efficacy, academic self-efficacy, and

motivation (independent variables) predicted the number of courses failed (the dependent variable) of at-risk students. None of the three predictor variables significantly predicted the number of courses failed ($R = .161$; $R^2 = .026$; R^2adj $= .012$; F $= 1.860$; $p = 0.137$). As a result of the moderated regression analysis, several of the moderators were found to be significant in the study. Chapter Five provides a discussion of the findings and implications for future practice.

CHAPTER FIVE:

DISCUSSION OF FINDINGS

Introduction

In the United States, 24.5% of students attending public school do not graduate (National Center for Education Statistics, 2012). With this alarming number of students not graduating high school, there is a need to better understand this population. The purpose of this study was to investigate the number of classes failed by at-risk students in relationship to their general self-efficacy, academic self-efficacy, and motivation. In this quantitative study, students in grades 10–12 who had failed two or more classes were surveyed in three different schools in the Midwest. This chapter provides a discussion and interpretation of the research findings. The first section presents an overview of the study. The next section explores implications for practice, followed by recommendations for future research and practice and an analysis of the limitations of the study.

Implications of the Findings

In the literature, it was assumed that at-risk students would be found to have lower self-perceptions of their general self-efficacy, academic self-efficacy, and motivation. In contrast, this study has added new information in regard to not only how at-risk students perceive themselves, but also how these perceptions may not relate to their academic performance (i.e. number of classes passed/failed). However, this study does contribute to the growing body of literature on at-risk students and what impacts

their academic endeavors. The findings of this study reflect that general self-efficacy, academic self-efficacy, and motivation did not impact the number of courses failed. In other words, at-risk students' perceptions of general self-efficacy, academic self-efficacy, and motivation were high regardless of how many classes the student had failed.

Therefore, there is a need to better understand what else is impacting these students to improve the amount of course failures as well as educate this population more effectively.

The results of this study raise several questions about at-risk students and the current literature about these students. In the current research body, the assumption is maintained that these students would have lower perceptions of themselves; however the results of this study show that these students may perceive at an average or higher rate (General Self-Efficacy Scale average of 31.102 out of 40) than suggested in the literature, as the participants scored highly on the three scales about their general self-efficacy, academic self-efficacy, and motivation. These students may not view themselves as "failures," but rather may not connect their negative academic situation with their own perceptions of themselves. At-risk students may either view these failures as something out of their control or perhaps have accustomed themselves to failing academically. Failing classes is a common part of their lifestyle (Montague, Enders, Cavendish, & Castro, 2011).

At-risk students may not be impacted by these failures in regard to their self-efficacy, academic self-efficacy, and motivation, as they have been failing for many years and these failures no longer influence their perceptions of themselves. Some at-risk

students may be content and satisfied with their current academic situation. Their academic goals for themselves may be realistic in their perception, although these goals may not aid them in finishing high school (Ehrenreigh, Reeves, Corley, & Orpinas, 2012). If these at-risk students do not see themselves failing academically, or do not connect these experiences, it is important to explore what other factors can be impacted to positively influence academic changes. There are many factors that may be impacting these students academically in regard to course failures that are unrelated to the individual self-perceptions of these students.

In order to better understand these other factors, moderated regressions were also run on several of the demographic variables. From analysis, more information was gathered about this sample. For example, students who worked were found to fail more classes than those that did not work. This finding adds to the literature of students who work in addition to going to school and struggle academically. In the literature, students who work have been found to have less time for school and are less engaged in the school community (Christiansen, 1997). However, for many of the students from low-income families, working is a necessity. According to the National Center for Education Statistics (2012), 62% of employed students from low-income families work more than 15 hours a week, and it can be assumed that working for these students is a necessity while school may not be a priority (National Center for Education Statistics, 2012). Understanding the role of work for at-risk students and the strain it plays on the students' academics needs to explored and examined. Working may negatively impact at-risk students' schooling, thus there is a need for more research on how to help these students and their families to help make school a priority while maintaining their living expenses.

In addition, senior at-risk students were found on average to fail fewer classes than non-seniors when they perceived themselves to have high academic self-efficacy. This finding may be informative when working with at-risk students. Seniors who realize that they have potential and are confident in their academic abilities may be students that will move past the grade failures and feel confident in their future endeavors. Understanding the important role that academic self-efficacy can play for seniors may aid in preventing these students from dropping out of high school. Having this extra confidence as a senior may help these students not only graduate from high school, but also teach them life skills that can help them beyond high school.

There was no significant relationship found between other moderators such as gender or whether a participant had a family member who had dropped out of school. The role of gender had not been explored in detail in the literature thus far and this finding shows that it may not be a significant factor with this population.

The role of family has been found in the literature to be a factor for at-risk students; however, the findings for this study shows that having a family member drop out of school did not impact these students negatively. In addition, at-risk students may not perceive their family members dropping out of high school to influence them academically, as perhaps the family's role may be more than just past academic success. Family support and understanding of the school community may be more impactful than actual graduation from the institution. Having parents who are involved and understand how the school functions may positively influence at-risk students beyond just having family members that have graduated. Overall, there is a need for more research about the phenomena of why at-risk students fail so many classes.

Recommendations for Practitioners

The definition of at-risk students is a "group of students who have experienced difficulties and/or failures as learners" (Alfassi, 2003, p. 9). In this study, at-risk students were considered those who had failed two or more classes. The results from this study show that the three variables of general self-efficacy, academic self-efficacy, and motivation may not play an important role for this population. There may be more factors that need to be explored on how at-risk students are created and affected academically.

In Chapter Two, the roles of teachers, parents, and the school as a whole were explored in regard to their impact on at-risk students. Teacher support was noted in the literature as significant as the relationship between the teacher and an at-risk student had been found to aid these students as learners. The findings of the study suggest that at-risk students have strong feelings about themselves in regard to their self-efficacy, academic self-efficacy, and motivation. The role of the teacher, as found in the literature, may still need to be student-centered and understanding of student obstacles, as well as realizing how students' perceptions of themselves may also play a role in their work with these students. George (2010) found that it was important for teachers not to infringe upon students' autonomy, and the results of this study emphasize the same. At-risk students may be confident in their abilities, however, they may not know how to utilize these feelings of self-efficacy and motivation. Understanding these students' perceptions more clearly may aid in helping these students utilize their strengths. Teachers can play an important role but may need to change their approach with this specific population.

Parental support is also a factor for better understanding how to work with at-risk students. Kayler and Sherman (2009) stressed the importance of having at-risk students and parents of at-risk students working toward the same goal. Having parents appreciate learning in school as well as supporting their student in his or her academics is important. In this study, it was found that having a parent drop out of school did not significantly impact either the dependent variable or the independent variables. Therefore, even parents who have dropped out of school or who lack the knowledge about the function of school can still positively impact at-risk students. However, from this study, it has been found that regardless of their parents' school status, these students continue to have high perceptions of themselves. Further research is needed to explore what role parents can play to positively impact at-risk students and their academics.

In addition, the school's role with at-risk students is important and, in the literature, student engagement was found to be the most effective for this population (Caraway et al., 2003). Participants in this study were found to have average or high self-efficacy, academic self-efficacy, and motivation, which can be interpreted as the belief they could achieve at school. Therefore, schools may need to reach out to these students and engage them in the school community to utilize the positive attributes of these at-risk students. According to Knesting (2008), teaching persistence at a young age and listening to the students in this population is needed, as these students have the general self-efficacy, academic self-efficacy, and motivation to complete tasks and potentially be successful at school. It is important to know how to utilize these perceptions to help these students be academically successful. In addition, these positive perceptions of general

self-efficacy and academic self-efficacy may describe the protective factors of these students that may impact how these students are so academically resilient.

The role of resiliency and self-regulatory skills has been described as important for having students be academically successful (Masten, 1997; Masten & Coatworth, 1998; Ramdass & Zimmerman, 2011). In the study, participants perceived themselves highly (in contrast to what was assumed about this population) in regard to their self-perceptions. These high perceptions can imply that students have high resiliency and effective self-regulatory skills. Deci and Ryan (1996) define self-regulatory skills as when students exercise their right to make choices. At-risk students in the study perceived themselves highly in regards to the general self-efficacy, academic self-efficacy, and motivation, which implied they believed they have some control or a choice in regard to their academic career. However, these participants may continue to fail classes. If at-risk students believe they have a choice, then the question remains, "What contributes to and impacts at-risk students' academic failures?"

Ryan and Deci (2002) stressed that individual goals are only effective when they *mean* something to the individual who is working toward the goal. From the findings, it may be assumed that academic goals, such as passing classes, may not be a goal of at-risk students, or perhaps passing classes does not *mean* something to them. Passing classes may be viewed as a performance goal to at-risk students, a goal where they feel like they are being judged and see each class as a potential for failure. If the students viewed passing classes more as mastery goals, a goal where they determine whether they met it or not, these students may perform better academically. In addition, it is important to note that the goals the school institution have for this population may not be the goals of each

82

individual at-risk student and their families. By treating this population as a group and not individuals, these at-risk students may not be understood to the level that is needed. Further research is needed on how students perceive passing classes as well as what might be some mastery goals that will be effective for this population.

Recommendations for Further Research

This study contributes to the literature by providing more insight about at-risk students in regard to what variables can or cannot predict course failures. The findings of this study suggest that at-risk students' perceptions of their general self-efficacy, academic self-efficacy, and motivation do not predict the number of courses failed during high school. From the findings, there is a need for further research.

Due to the quantitative nature of the study, the perceptions of at-risk students' general self-efficacy, academic self-efficacy, and motivation may have been limited. Looking to future research on at-risk students, there is a need for qualitative studies of this population to explore their individual perceptions of their repeated academic failures. By providing a voice to these individuals through qualitative research, there may be a more in-depth look not only at how these students perceive themselves but also to some solutions to improve their academic endeavors or more importantly explore their self-determined needs. Exploring their perceptions of themselves and school further may lead to some effective solutions to improving at-risk student achievement.

There is also a need to examine this population through new lenses due to the outcome of the study. If at-risk students have high general self-efficacy, academic self-efficacy, and motivation, then what is contributing to their struggles with their

academics? The impact of working while attending school needs to be further explored as it is unclear the level of impact that working may have on students. Exploring other aspects of this population is needed, whether it is school engagement, type of parental or teacher support, the role of working while in school, or the many other factors that may be impacting academic functions of at-risk students.

In addition to exploring at-risk students, it may also be important to research further the millennial culture. The students in the study are part of the millennial generation that have distinct differences from other generations with regard to their views of others, political and social values, and attitudes (Broido, 2004). This generation of students has been characterized to believing that everyone will be successful; they have their choice of career options; and believe that they can have immediate gratification (Colman & Colman, 2006). This generation is the most diverse in United States history: one in five has immigrant parents, and there are many cultural contexts that influence these students' learning (McGlynn, 2005). In regard to school, this generation of students is typically pushed to perform, believe in teamwork, and when they are challenged, they believe they can figure it out or that someone else will for them (Atkinson, 2004). With this type of population, students of today are different than ever before. Learning how to work with this population, specifically each individual at-risk student of this generation, is more complex. With at-risk students perceiving themselves as having academic self-efficacy, general self-efficacy, and motivation, these students may not be realistic in their views due to their generational upbringing. Exploring the impact of the millennial culture further in regard to at-risk students is needed in order to better represent the needs and perceptions of this population.

Limitations of the Study

This study had some limitations worth noting when interpreting the findings. One limitation of this study is that the dependent variable (number of failed classes) had a large range, from 2 to 28. Participants that failed 2 classes were considered in the same way students that had failed 28 classes. Analyzing the results further may show that there is a difference between participants who failed significantly fewer or more classes.

Another limitation of the study may be the return rate of the parental or guardian consent forms. Participants were asked to gain parental or guardian signatures to partake in the study. In the literature, at-risk students' parental support can be limited and therefore, the number of parental consent forms returned may have been impacted due to the nature of this group. In addition, the majority of the participants were seniors who were 18 and able to consent to the study without parental permission. Having over half of the participants being from one grade may also have impacted the results. However, the overall return rate for the study was 47%.

Conclusion

The aim of this study was to understand at-risk students' number of courses failed in relation to their perceptions of their general self-efficacy, academic self-efficacy, and motivation. There were several significant findings related to at-risk students and their perceptions of themselves, as well as information about the role of work on at-risk students. The findings of this study provide an empirical base for continued investigation.

When working with at-risk students in regard to their academics, there is a lack of awareness and knowledge about this population and how they can become more

academically successful. This quantitative study sought to explore the questions of the impact of perceptions of general self-efficacy, academic self-efficacy, and motivation on the number of classes at-risk students fail. A multiple regression was conducted and the findings indicated that there was no significant relationship. However, the moderated regression analysis found that having a job may negatively impact the number of classes an at-risk student failed. There is therefore a need for more explanation about what role these variables may or may not play in impacting academic success (passing classes), and there is a need to better understand what other factors of at-risk students may be impacting them academically.

Thus it remains critical that there be more research on this population not only to better explain their perceptions but also to better understand how to reach these students effectively. Current practices of mentoring, improving student engagement, and teaching resiliency and self-regulatory skills have improved at-risk behaviors. However, there is a need for more research on how to reach *all* at-risk students effectively, as well as how to manage this population as a part of the millennial culture. At-risk students deserve the opportunity to be successful academically, and to accomplish this, there is a need for further exploration.

REFERENCES

Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in

humans: Critique and reformation. *Journal of Abnormal Psychology,* 87(1), 49–

74.

Alfassi, M. (2003). Promoting the will and skill of students at academic risk: An

evaluation of an instructional design geared to foster achievement, self-efficacy,

and motivation. *Journalof Instructional Psychology, 30*(1), 28–40.

Arslan, A. (2012). Predictive power of the sources of primary school students' self-

efficacy beliefs on their self-efficacy beliefs for learning and performance.

Educational Sciences: Theory and Practice, 12(3), 1915–1920.

Au, R. C. P., Watkins, D., Hattie, J., & Alexander, P. (2009). Reformulating the

depression model of learned hopelessness for academic outcomes. *Educational

Research Review, 4,* 103–117.

Au, R. C. P., Watkins, D. A., & Hattie, J. A. C. (2010). Academic risk factors and deficits

of learned hopelessness: A longitudinal study of Hong Kong secondary school

students. *Educational Psychology, 30*(2), 125–138.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change.

Psychological Review, 84(2), 191–215.

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of Human

Behavior* (Vol. 4, pp. 71–81). New York: Academic Press.

Bartsch, R. A., Chase, K. A., & Meerman, H. (2012). Increasing academic self-efficacy

    in statistics with a live vicarious learning experience presentation. *Teaching of*

    Psychology,   39(133), 133–136.

Bassi, M., Steca, P., Fave, A. D., & Caprara, G. V. (2007). Academic self-efficacy beliefs

    and quality of experience in learning. *Journal of Youth and Adolescence, 36,*

    301–312.

Bowen, G. L., Richman, J. M., Brewster, A., & Bowen, N. (1998). Sense of school

    coherence, perceptions of danger at school, and teacher support among youth at

    risk of school failure. *Child and Adolescent Social Work Journal, 15*(4), 272–285.

Bowen, N. K., & Bowen, G. L. (1998). The effects of home microsystem risk factors and

    school microsystem protective factors on student academic performance and

    affective investment in schooling. *Social Work in Education, 20*(4), 219–231.

Brigman, G. A., Webb, L. D., & Campbell, C. (2007). Building skills for school success:

    Improving academic and social competence of students. *Professional School*

    Counseling,   10(3), 279–288.

Brown, T. M. & Rodriguez, L. F. (2009). School and the co-construction of dropout.

    International Journal of Qualitative Studies in Education, 22(2), 221–242.

Brown-Howard, J. (2007). A study to determine the relationship between principal's

    leadership style and teacher motivation (Doctoral dissertation). Available from

    ProQuest Dissertations and Theses database. (UMI No. 3278085)

Brussard, C. (2002). The relationship between classroom motivation and academic

    achievement   in first and third grades. Master thesis, Louisiana State University.

Bruyere, E. B. (2010). Child participation and positive youth development. *Child*

    Welfare, 89(5), 205–220.

Caldwell, L. L., Patrick, M. E., Smith, E. A., Palen, L. A., & Wegner, L. (2010).

    Influencing adolescent leisure motivation: Intervention effects of Healthwise

    South Africa. *Journal of Leisure Research, 43*(2), 203–220.

Caraway, K., Tucker, C. M., Reinke, W. M., & Hall, C. (2003). Self-efficacy, goal

    orientation, and fear of failure as predictors of school engagement in high school

    students. *Psychology in the Schools, 40*(4), 417–427.

Children's Defense Fund. (2011). Each day in America. Research Library. Retrieved

    from http://childrensdefense.org

Christiansen, J. (1997). Helping teachers meet the needs of students at risk for school

    failure. *Elementary School Guidance & Counseling, 31*(3), 204–211.

Clouder, L. (2009). Being responsible: Students' perspectives on trust, risk, and work-

    based   learning. *Teaching in Higher Education, 14*(3), 289–301.

Colman, R. & Colman, A. (2006). Culture and subcultures. *Youth Studies Australia,*

    25(1), 4.

Cook, T. D., Church, M. B., Ajanaku, S., Shadish, W. R., Kim, J., & Cohen, R. (1996).

    Child   Development, 67, 3368–3385.

Cyders, M. A., & Coskunpinar, A. (2010). Is urgency emotionality? Separating urgent

behaviors from effects of emotional experiences. *Personality and Individual*

Differences, 48, 839– 844.

Cyders, M. A., Smith, G. T., Spillane, N. S., Fischer, S., & Annus, A. M. (2007).

Integration of impulsivity and positive mood to predict risky behaviors:

Development and validation of a measure of positive urgency. *Psychological*

Assessment, 19(1), 107–118.

Deci, E. L., & Ryan, R. M. (1996). Need satisfaction and the self-regulation of learning.

Learning & Individual Differences, 8(3), 165–184.

Denault, A. & Poulin, F. (2009). Intensity and breadth of participation in organized

activities during the adolescent years: Multiple associations with youth outcomes.

Journal of Youth Outcomes, 38, 1199–1213.

Ehrenreich, H., Reeves, P., Corley, S., & Orpinas, P. (2012). With graduatiaon in sight:

Perceptions of high- and low-aggression students of the journey to high school

completion. *School Psychology Quarterly, 27*(4), 198–209.

Elliot, A. J. & Harackiewicz, J. M. (1996). Approach and avoidance achievement goals

and intrinsic motivation: A meditational analysis. *Journal of Personality and*

Social Psychology, 70(3), 461–475.

Fan, W. & Williams, C. M. (2010). The effects of parental involvement on students'

academic self-efficacy, engagement, and intrinsic motivation. *Educational*

Psychology, 30(1), 53–74.

Felner, R. D., Seitsinger, A. M., Brand, S., Burns, A., & Bolton, N. (2007). Creating

    small learning communities: Lessons from the project on high-performing

    learning communities about "what works" in creating productive,

    developmentally enhancing,   learning contracts. *Educational Psychologist, 42*(4),

    209–221.

Fire, J. E., Bond, S., & Byars-Winston, A. (2011). Correlates and predictors of academic

    self-efficacy among African American students. *Education, 132*(1), 141–148.

Fischer, J. & Corcoran, K. (1994). *Measures for clinical practice: A sourcebook* (2nd

    ed.).New York: Free Press.

Fleming, C., Woods, C., & Barkin, S. L. (2006). Career goals in the high-risk adolescent.

    Clinical Pediatrics, 45, 757–764.

Foster, J. D., Shenesey, J. W., & Goff, J. S. (2009). Why do narcissists take more risks?

    Testing the roles of perceived risks and benefits of risky behaviors. *Personality*

    and Individual Differences, 47, 885–889.

Fuller, B. (2009). From punishment to responsibility. *Reclaiming Children and Youth,*

    18(3), 21–23.

Gall, M., D., Gall, J. P. & Borg, W. R. (2003). *Educational research: An introduction* (7th

    ed.). Boston, MA: Allyn and Boston.

George, M. (2010). Ethics and motivation in remedial mathematics education.

    Community College Review, 38(1), 82–92.

Gest, S. D., Rulison, K. L., Davidson, A. J., & Welsh, J. A. (2008). A reputation for success (or failure): The association of peer academic reputations with academic self-concept, effort, and performance across the upper elementary grades. *Developmental Psychology, 44*(3), 625–636.

Goodman, S., Thania, J., Keresztesi, M., Mamdani, F., Mokgatle, D., Musariri, M., Pires, J., & Schlecter, A. (2011). An investigation of the relationship between students' motivation and academic performance as mediated by effort. *South African Journal of Psychology, 41*(3), 373–385.

Griffin, D. & Galassi, J. P. (2010). Parent perceptions of barriers to academic success in a rural middle school. *Professional School Counseling, 14*(1), 87–100.

Griggs, N. (2010). Finding my place: A western Australian public library program with national potential for at risk youth. *APLIS, 23*(3), 103–106.

Gross, S. J., & Shapiro, J. P. (2004). Using multiple ethical paradigms and turbulence theory in response to administrative dilemmas. *International Studies in Educational Administration, 32*(2), 47–62.

Gutman, L. M., Sameroff, A. J., & Eccles, J. S. (2002). The academic achievement of African American students during early adolescence: An examination of multiple risk, promotive, and protective factors. *American Journal of Community Psychology, 30*(3), 367–399.

Halawah, I. (2006). The effect of motivation, family environment, and student

characteristics on academic achievement. *Journal of Instructional Psychology*

, 33(2), 91–99.

Hale Jr., D. R. (2012). *Does upward bound impact academic self-efficacy?* (Doctoral

dissertation). Boise State University. Retrieved from

http://www.academia.edu/1259825/Does_Upward_Bound_Impact_AcademicSelf

-Efficacy

Harackiewicz, J. M., & Elliot, A. J. (1993). Achievement goals and intrinsic motivation.

Journal of Personality and Social Psychology, 65(5), 904–915.

Howell, D. C. (2007). *Statistical methods for psychology.* Belmont, CA: Thomas

Wadsworth.

Huang, C. (2012). Discriminant and incremental validity of self-concept and academic

self-efficacy: A meta-analysis. *Educational Psychology, 32*(6), 777–805.

Hughes, J. N. (2011). Longitudinal effects of teacher and student perceptions of teacher-

student relationship qualities on academic adjustment. *Elementary School*

Journal, 112(1), 38–60.

Janosz, M., Archambault, I., Morizot, J., & Pagani, L. S. (2008). School engagement

trajectories and their differential predictive relations to dropout. *Journal of Social*

Issues, 64(I), 21–40.

Kayler, H., & Sherman, J. (2009). At-risk ninth-grade students: A psychoeducational

    group approach to increase study skills and grade point averages. *Professional*

    School Counseling, 12(6), 434–439.

Kincaid, K. J. (2010). *At-risk adolescent girls: Protective factors and effects of a positive*

    youth development intervention (Doctoral dissertation). Available from ProQuest

    Dissertations and Theses database. (UMI 1487829).

Kincaid, K. J. (2010). Appendix A of Demographic Survey. Available from ProQuest

    Dissertations and Theses database. (UMI 1487829).

Knesting, K. (2008). Students at risk for school dropout: Supporting their persistence.

    Preventing School Failure, 52(4), 3–10.

Kolar, D. W., & McBride, C. A. (2011). Mentoring at-risk youth in schools: Can small

    doses make a big change? *Mentoring & Tutoring: Partnership in Learning, 19*(2),

    125–138.

Lagana-Riordan, C., Aguilar, J. P., Franklin, C., Streeter, C. L., Kim, J. S., Tripodi, S. J.,

    & Hopson, L. M. (2011). At-risk students' perceptions of traditional schools and a

    solution-focused public alternative school. *Preventing School Failure, 55*(3),

    105–114.

Lehman, S., Kuaffman, D. F., White, M. J., Horn, C. A., & Bruning, R. H. (2001).

    Teacher interaction: Motivating at risk-students in web-based high school courses.

    Journal of Research on Computing in Education, 33(5), 1–19.

Luszczynska, A., Scholz, U., & Schwarzer, R. (2005). The general self-efficacy scale: Multicultural validation studies. *Journal of Psychology, 139*(5), 439–457.

MacMath, S., Roberts, J., Wallace, J., & Chi, X. (2009). Curriculum integration and at-risk students: A Canadian case study examining student learning and motivation. *British Journal of Special Education, 37*(2), 87–94.

Martin, A. J. (2006). Enhancing student motivation and engagement: The effects of a multidimensional intervention. *Contemporary Educational Psychology, 33,* 239–269.

Masten, A. S. (1997). Resilience in children at-risk. *University of Minnesota Research and Practice Newsletter, 5*(1). Retrieved from http://www.cehd.umn.edu/CACREI/Reports/RPractice/Spring97/resilience.html

Masten, A. S., & Coatsworth, J. D. (1998). The development of competence in favorable and unfavorable environments. *American Psychologist, 53*(2), 205–220.

McGrew, K. (2008). Academic self-efficacy. *Institute for Applied Psychometrics.* Retrieved from http://www.iaspsych.com/acmcewok/Academicself-efficacy.html

McMahon, S. D., Wernsman, J., & Rose, D. (2009). The relation of classroom environment and school belonging to academic self-efficacy among urban fourth and fifth grade students. *Elementary School Journal, 109*(3), 276–281.

McTigue, E. & Liew, J. (2011). Principles and practices for building academic self-efficacy in middle grades language arts classrooms. *The Clearing House, 84,* 114–118.

Menzer, J. D. & Hampel, R. L. (2009). Lost at the last minute. *Phi Delta Kaplan, 5,* 660–664.

Merlter, C. A. & Vannatta R. A. *Advanced and multivariate statistical methods: Practical application and interpretation*. Glendale, CA: Pyrczak Publishing.

Messersmith, E. E. & Schulenberg, J. E. (2008). When can we expect the unexpected? Predicting educational attainment when it differs from previous expectations. *Journal of Social Issues, 64*(1), 195–211.

Moilanen, D., Hemond-Reuman, E., Crump, A., & Kenny, M. (1991). *College bound study*. Unpublished manuscript, Boston College, Chestnut Hill, MA.

Montague, M., Enders, C., Cavendish, W., & Castro, M. (2011). Academic and behavioral trajectories for at-risk adolescents in urban schools. *Behavioral Disorders, 36*(2), 141–156.

Morgan, P. L., Fuchs, D., Compton, D. L., Cordray, D. S., & Fuchs, L. S. (2008). Does early reading failure decrease children's reading motivation? *Journal of Learning Disabilities, 41*(5), 387–404.

Multon, K. D., Brown, S. D., & Lent, R. W. (1991). Relations of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology, 38,* 30–38.

Nota, L., Soresi, S., & Zimmerman, B. J. (2004). Self-regulation and academic achievement and resilience: A longitudinal study. *International Journal of Educational Research, 41,* 198–215.

Patrick, M. E., Lee, C. M., & Larimer, M. E. (2011). Drinking motives, protective

    behavioral strategies, and experienced consequences: Identifying students at risk.

    Addictive Behaviors, 36, 270–273.

Pershey, M. G. (2010). A comparison of African American students' self-perceptions of

    school competence with their performance on state-mandated achievement tests

    and normed tests of oral and written language and reading. *Preventing School*

    Failure, 55(1), 53–62.

Ramdass, D., & Zimmerman, B. J. (2011). Developing self-regulation skills: The

    important role of homework. *Journal of Advanced Academics, 22*(2), 194–218.

Rapp-Paglicci, L., Stewart, C., & Rowe, W. (2011). Can a self-regulation skills and

    cultural arts program promote positive outcomes in mental health symptoms

    and academic achievement for at-risk youth? *Journal of Social Service Research,*

    37, 309–319.

Raymond, C. P. A., Watkins, D. A., & Hattie, J. A. C. (2010). Academic risk factors and

    deficits of learned hopelessness: A longitudinal study of Hong Kong secondary

    school students. *Educational Psychology, 30*(2), 125–138.

Rieg, S. A. (2007). Classroom assessment strategies: What do students at risk and

    teachers perceive as effective and useful? *Journal of Instructional Psychology,*

    34(4), 214–225.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton

    University Press.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of

    intrinsic motivation, social development, and well-being. *American Psychologist,*

    55(1), 68–78.

Scholz, U., Gutierrez Doza, B., Sud. S., & Schwarzer, R. (2002). Is general self-efficacy

    a universal construct? Psychometric findings from 25 countries. *European*

    Journal of Psychological   Assessment, 18, 242–251.

Schunk, D. H. & Pajares, F. (2002). The development of academic self-efficacy. In A.

    Wigfield and J. Eccles (Eds.), *Development of Achievement Motivation* (pp. 15–

    31). San Diego: Academic Press.

Schwarzer, R., & Jerusalem, M. (1995). Appendix B of General Self-Efficacy Scale.

    Windsor, UK: NFER-NELSON.

Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman,

    S. Wright, & M. Johnston, *Measures in Health Psychology: A user's portfolio.*

    Causal and control beliefs (pp. 35–37). Windsor, UK: NFER-NELSON.

Scott, W. D., Dearing, E., Reynolds, W. R., Lindsay, J. E., Baird, G. L., & Hamill, S.

    (2008). Cognitive self-regulation and depression: Examining academic self-

    efficacy and goal characteristics in youth of a northern plains tribe. *Journal of*

    Research on Adolescence, 18(2), 379–394.

Sideridis, G. D. (2002), Goal importance and students at risk of having language

    difficulties: An underexplored aspect of student motivation. *Journal of Learning*

    Disabilities, 35(4), 343–356.

Solberg, V. S. H., Carlstrom, A. H., Howard, K. A. S., & Jones, J. E. (2007). Classifying
at-risk high school youth: The influence of exposure to community violence and
protective factors on academic and health outcomes. *The Career Development
Quarterly, 55,* 313–327.

Somers, C. L., Owens, D., & Piliawsky, M. (2009). A study of high school dropout
prevention and at-risk ninth graders' role models and motivations for school
completion. *Education, 130*(2), 348–356.

Stanard, R. P. (2003). High school graduation rates in the United States: Implications for
school counselors. *Journal of Counseling & Development, 81,* 217–221.

Steese, S., Dollette, M., Phillips, W., Hossfeld, E., Matthews, G., & Taormina, G. (2006).
Understanding girls' circle as an intervention on perceived social support, body
image, self-efficacy, locus of control, and self-esteem. *Adolescence, 41*(161), 55–
74.

Thijs, J. & Verkuyten, M. (2008). Peer victimization and academic achievement in a
multiethnic sample: The role of perceived academic self-efficacy. *Journal of
Educational   Psychology, 100*(4), 754–764.

Trusty, J. (2001). High educational expectations and low achievement: Stability of
educational goals across adolescence. *The Journal of Educational Research,
93*(6), 356–365.

U.S. Department of Education, National Center for Education Statistics. (2012). *The Condition of Education 2012* (NCES 2012–045). Retrieved from http://nces.ed.gov/.

U.S. Department of Education, National Center for Education Statistics (2009). *The Condition of Education 2009* (NCES 2009–081). Retrieved from http://nces.ed.gov/

Uwah, C. J., McMahon, H. G., & Furlow, C. F. (2008). School belonging, educational aspirations, and academic self-efficacy among African American male high school students: Implications for school counselors. *Professional School Counseling, 11*(5), 296–305.

Wang, C. D. C. & Casteneda-Sound, C. (2008). The role of generational status, self-esteem, academic self-efficacy, and perceived social support in college students' psychological well-being. *Journal of College Counseling, 11,* 101–118.

Ward, M. J., Kester, D., & Kouzekanini, K. (2009). Using preservice teachers to improve computer skills of at-risk alternative high school students. *Journal of Education for Students Placed at Risk, 14,* 189–200.

Weber, E. U., Blais, A.-R., & Betz, E. (2002). A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of Behavioral Decision Making, 15,* 263–290.

Whiteside, S. P., & Lyman, D. R. (2001). The five-factor model and impulsivity: Using a

    structural model of personality to understand impulsivity. *Personality and*

    Individual Differences, 30(4), 669–689.

Wright, J. (2006). Learning interventions for struggling students. *Education Digest, 1,*

    35–39.

Wu, C. (2009). Factor analysis of the general self-efficacy scale and its relationship with

    individualism/collectivism among twenty-five countries: Application of

    multilevel confirmatory factor analysis. *Personality and Individual Differences,*

    46, 699–703.

Zimmerman, B. J. (1998). Academic studying and the development of personal skill: A

    self-regulatory perspective. *Educational Psychology, 33,* 73–86.

Zyngier, D. (2007). Listening to teachers-listening to students: Substantive conversations

    about   resistance, empowerment, and encouragement. *Teachers and Teaching:*

    theory and practice, 13(4), 327–347.

TABLE 1: *Numbers and Percentages of Demographic Variables*

Variables	Numbers	Percentages
Gender		
Male	129	60%
Female	86	40%
Grade Level		
Seniors	165	77%
Grades 10–11	50	33%
Ethnic Identification		
Caucasian	99	46%
Hispanic	48	21%
African American	35	16%
Asian	18	8%
Russian	3	1%
Native American	4	1.8%
Somali	3	1%
Ethiopian	2	Less than 1%
Pacific Islander	2	Less than 1%
Biracial	1	Less than 1%
Employment Status		
Worked	111	51.6%
Did Not Work	104	48.4%
Family Member Dropped Out of School		
No	130	60.5%
Yes	85	39.5%
Adult at Home		
Mother and Father	94	43.7%
Mother	86	40%
Father	20	9%
Aunt/Uncle	5	2.3%
Grandparent	4	1.8%
Sibling	2	Less than 1%
Stepparent(s)	1	Less than 1%
Guardian	1	Less than 1%
Foster Parent	1	Less than 1%
None	1	Less than 1%

TABLE 2: *Means and Standard Deviations of Classes Failed by Demographic Variables*

Variables		Number of Participants	Mean	Standard Deviation	Minimum	Maximum
Gender						
	Male	129	7.19	5.632	2	28
	Female	86	5.22	2.908	2	15
Grade Level						
	Seniors	165	6.53	5.112	2	28
	Grades 10–11	50	5.98	3.733	2	17
Ethnic Identification						
	Caucasian	99	5.21	3.417	2	20
	Hispanic	48	8.21	4.785	2	23
	African American	35	7.49	6.590	2	28
	Asian	18	6.11	4.071	2	16
	Russian	3	11.00	9.165	3	21
	Native American	4	3.75	1.258	2	5
	Somali	3	2.00	.000	2	2
	Ethiopian	2	13.50	14.849	3	24
	Pacific Islander	2	5.50	2.121	4	7
	Biracial	1	3.00	.000	3	3
Employment Status						
	Worked	111	6.36	4.983	2	28
	Did Not Work	104	6.45	4.671	2	24
Family Member Dropped Out of School						
	No	130	6.12	4.741	2	24
	Yes	85	6.84	4.945	2	28
Adult at Home						
	Mother and Father	94	6.26	4.781	2	28
	Mother	86	6.73	5.084	2	24
	Father	20	5.60	3.831	2	15
	Aunt/Uncle	5	5.40	3.912	2	12
	Grandparent	4	7.75	6.131	2	14
	Sibling	2	3.50	2.121	2	5
	Stepparents	1	6.00	.000	6	6
	Guardian	1	18.00	.000	18	18
	Foster Parent	1	6.00	.000	6	6
	None	1	3.00	.000	3	3

TABLE 3: *Bar Graph of Independent Variables and Mean Scores*
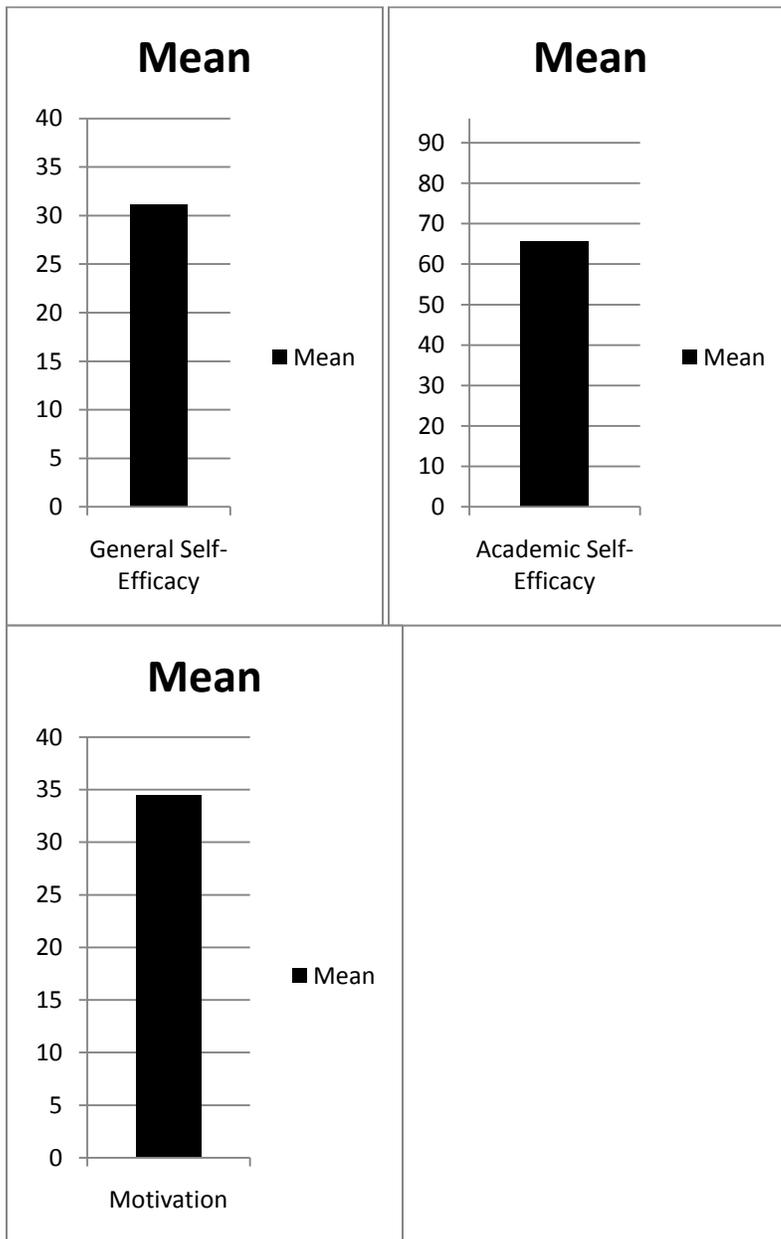
The mean total scores for each were: General Self-Efficacy: 31.102/ 40 possible; Academic Self-Efficacy: 65.6736/ 96 possible; and Motivation: 34.498/ 50 possible.

TABLE 4: *Correlations between the Independent Variables*

		General Self-Efficacy	Academic Self-Efficacy	Motivation
General Self-Efficacy	Pearson Correlation	1	.456**	.500**
	Sig. (2-tailed)		.000	.000
Academic Self-Efficacy	Pearson Correlation	.456**	1	.534**
	Sig. (2-tailed)	.000		.000
Motivation	Pearson Correlation	.500**	.534**	1
	Sig. (2-tailed)	.000	.000	

** Correlation is significant at the $p < .01$ level.

Note: All three independent variables are significantly related.

TABLE 5: *Multiple Regression Model Summary*

Model	R	R^2	R^2_{adj}	F_{chg}	p	df_1	df_2
1	.161	.026	.012	1.860	.137	3	211

Note: .026 or 2.6% of the variation in number of courses failed is accounted for by including general self-efficacy, academic self-efficacy, and motivation in the model: a weak relationship. The F-test revealed that none of the coefficients are significant at a .05 level *(p = .137).*

TABLE 6: *Multiple Regression Coefficients*

	B	Beta	*p*	Bivariate r	Partial r	Part r	Tolerance	VIF
General Self-Efficacy	-.065	-.034	.677	-.088	-.004	-.004	.700	1.429
Academic Self-Efficacy	-.150	-.108	.194	-.158	-.107	-.106	.667	1.499
Motivation	-.069	-.048	.575	-.121	-.040	-.039	.632	1.582

Note: None of the independent variables were found to be significant at a *p* < .05 level.

TABLE 7: *Moderated Regression Model Summary: Senior vs. Non-Senior*

Model	R	R^2	R^2_{adj}	F_{chg}	p	df_1	df_2
1	.236	.056	.024	1.745	.100	7	207

Note: The F-test revealed none of the coefficients are significant at a .05 level ($p = .100$).

TABLE 8: *Moderated Regression Coefficients: Non-Senior vs. Senior*

	B	Beta	*p*
Constant			
General Self-Efficacy	.279	.146	.527
Academic Self-Efficacy	.246	.178	.289
Motivation	-.190	-.133	.530
Senior			
General Self-Efficacy	-.336	-.754	.437
Academic Self-Efficacy	-.537	-1.016	.046***
Motivation	.166	.384	.617

*** indicates significance at *p* is < .05.

Note: This table indicates how well the moderator variable (senior vs. non-senior)

interacted with the dependent variable and independent variables. Senior academic self-

efficacy was found to be a significant moderator.

TABLE 9: *Moderated Regression Model Summary: Gender*

Model	R	R^2	R^2_{adj}	F_{chg}	p	df_1	df_2
1	.247	.061	.029	1.915	.069	7	207

Note: The F-test revealed none of the coefficients are significant at a .05 level ($p = .069$).

TABLE 10: *Moderated Regression Coefficients: Gender*

	B	Beta	*p*
Constant			
General Self-Efficacy	-.009	-.005	.964
Academic Self-Efficacy	-.237	-.171	.132
Motivation	-.154	-.108	.359
Gender			
General Self-Efficacy	-.213	-.489	.504
Academic Self-Efficacy	.301	.629	.199
Motivation	.093	.232	.715

Note: This table indicates how well the moderator variable, gender, interacted with the dependent variable and independent variables. None of the variables were found to be significant at a $p < .05$ significance level.

TABLE 11: *Moderated Regression: Working vs. Not Working*

Model	R	R^2	R^2_{adj}	F_{chg}	p	df_1	df_2
1	.245	.060	.028	1.881	.074	7	207

Note: The F-test revealed none of the coefficients are significant at a .05 level *(p = .074).*

TABLE 12: *Moderated Regression Coefficients: Working vs. Not Working*

	B	Beta	*p*
Constant			
General Self-Efficacy	.204	.106	.337
Academic Self-Efficacy	-.322	-.233	.047***
Motivation	.126	.088	.485
Working			
General Self-Efficacy	-.588	-1.350	.071
Academic Self-Efficacy	.366	.770	.114
Motivation	-.304	-.808	.217

*** indicates significance at *p* is < .05.

Note: This table indicates how well the moderator variable (senior vs. non-senior) interacted with the dependent variable and independent variables. Working was found to be a significant moderator.

TABLE 13: *Moderated Regression Model Summary: Family Member Dropped Out of*

School

     (Yes or No)

Model	R	R^2	R^2_{adj}	F_{chg}	p	df_1	df_2
1	.229	.052	.020	1.629	.129	7	207

Note: The F-test revealed none of the coefficients are significant at a .05 level ($p = .129$).

TABLE 14: *Moderated Regression Coefficients: Family Member Dropped Out of*

School

     (Yes or No)

	B	Beta	*p*
Constant			
General Self-Efficacy	.125	.065	.496
Academic Self-Efficacy	-.142	-.102	.372
Motivation	-.207	-.145	.204
Family Member Dropped Out			
General Self-Efficacy	-.664	-1.529	.054
Academic Self-Efficacy	.073	.149	.753
Motivation	.365	.943	.147

Note: This table indicates how well the moderator variable, having a family member drop out of school, interacted with the dependent variable and independent variables. None of the variables were found to be significant at a $p < .05$ significance level.

APPENDIX A

Demographic Form

Directions: Please respond to the following questions.   **Student ID:** _____

1. Grade: _____ 10   _____ 11   _____ 12
2. Gender: _____ Male   _____ Female

3. Who is your adult at home? _____ (mother, father, grandparent, etc.)

4. Do you work? _____ Yes _____ No

5. If yes, how many hours a week? _____ 0–20 hours _____ 20–40 hours _____ 40 or more

6. Has anyone in your family dropped out of school? _____ Yes _____ No

7. If yes, who? _____ (mother, father, sister, brother, etc.)

8. What is your ethnic background? _____

General Self-Efficacy Scale

Directions: Below is a list of statements dealing with your general feelings about yourself. Please circle the answer that sounds like you most of the time.

1. I can always manage to solve difficult problems if I try hard enough.

    Not at All   Hardly True   Moderately True   Exactly True

2. If someone opposes me, I can find the means and ways to get what I want.

    Not at All   Hardly True   Moderately True   Exactly True

3. It is easy for me to stick to my aims and accomplish my goals.

    Not at All   Hardly True   Moderately True   Exactly True

4. I am confident that I could deal efficiently with unexpected events.

    Not at All   Hardly True   Moderately True   Exactly True

5. Thanks to my resourcefulness, I know how to handle unforeseen situations.

    Not at All   Hardly True   Moderately True   Exactly True

6. I can solve most problems if I invest the necessary effort.

    Not at All   Hardly True   Moderately True   Exactly True

7. I can remain calm when facing difficulties because I can rely on my coping abilities.

    Not at All   Hardly True   Moderately True   Exactly True

8. When I am confronted with a problem, I can usually find several solutions.

    Not at All   Hardly True   Moderately True   Exactly True

9. If I am in trouble, I can usually think of a solution.

    Not at All   Hardly True   Moderately True   Exactly True

10. I can usually handle whatever comes my way.

    Not at All   Hardly True   Moderately True   Exactly True

APPENDIX C

Academic Self-Efficacy Scale

The following items describe different academic situations that students like you frequently encounter. I am interested in finding out <u>how confident you are of your ability to complete each task successfully</u>.

A scale is provided below these instructions. One (1) indicates that you have <u>very little</u> <u>confidence</u> in your ability to complete the specific task successfully. Four (4) indicates that you have <u>complete confidence</u> in your ability to complete the specific task successfully.

Directions: For each item, please mark your response with the numbers provided at the end of the statement.

1	2	3	4
Very Little Confidence	Some Confidence	Average Confidence	Complete Confidence

1.	Listen with all my attention to what the teacher is talking about.	1	2	3	4
2.	Memorize word definitions, math formulas, and facts as necessary.	1	2	3	4
3.	Concentrate exclusively on the understanding and answering of questions during an examination.	1	2	3	4
4.	Understand concepts that are presented in class.	1	2	3	4
5.	Explain what I've learned in school to others in my own words.	1	2	3	4
6.	Identify the most important concepts during a reading assignment.	1	2	3	4
7.	Collect notes from a friend for a class that I've missed.	1	2	3	4
8.	Attend class regularly.	1	2	3	4
9.	Resist distractions during class.	1	2	3	4
10.	Remember what I learned in school if someone asked me the next day.	1	2	3	4
11.	Focus on an examination until I've finished every question.	1	2	3	4
12.	Ask questions in class to clarify things I don't understand.	1	2	3	4
13.	Explain on an exam something I was taught.	1	2	3	4
14.	Recognize ideas that seem most important in class lectures.	1	2	3	4
15.	Write notes in an organized fashion that captures the most important ideas presented in class.	1	2	3	4
16.	Do assigned readings.	1	2	3	4
17.	Pay attention to educational movies or film strips shown in class.	1	2	3	4
18.	Develop strategies to help remember specific information that I learn in school.	1	2	3	4
19.	Resist distraction while taking an exam.	1	2	3	4
20.	Follow the teacher's train of thought when he/she explains a topic.	1	2	3	4
21.	Select the correct answer on a multiple-choice test.	1	2	3	4
22.	Distinguish important facts from unimportant details.	1	2	3	4
23.	Take notes that are useful later when I prepare for an exam.	1	2	3	4
24.	Complete all homework assignments.	1	2	3	4

APPENDIX D

<u>Motivation Scale</u>

Directions: Below is a list of statements dealing with your general feelings about yourself. Please circle the answer that sounds like you most of the time.

1. I like hard work because it is a challenge.

   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

2. I work on problems to learn how to solve them.

   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

3. I like difficult problems because I enjoy trying to figure them out.

   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

4. When I make a mistake, I would rather figure out the right answer by myself.

   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

5. I know whether or not I am doing well in school without grades.

   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

6. I would rather just learn what I have to in school.

   Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

7. I like to learn things on my own that interest me.

Strongly Disagree   Disagree   Neutral   Agree   Strongly

Agree

8. I like to go on to new work that's at a more difficult level.

Strongly Disagree   Disagree   Neutral   Agree   Strongly

Agree

9. I ask questions in class because I want to learn new things.

Strongly Disagree   Disagree   Neutral   Agree   Strongly

Agree

10. I think I should have a say in what work I do in school.

Strongly Disagree   Disagree   Neutral   Agree   Strongly

Agree

APPENDIX E

Parental Consent Form

**An Investigation of At-Risk Students' Academic Perceptions
in Regard to Self-Efficacy and Motivation**

PARENT/GUARDIAN CONSENT FORM

MINNESOTA STATE UNIVERSITY, MANKATO

Dear Parent/Guardian:

My name is Marguerite Wentzel, and I am a doctoral candidate in Counselor Education and Supervision Program at Minnesota State University, Mankato. I am being supervised by Dr. Jennifer Pepperell, a professor at Minnesota State University, Mankato. We would like to include your child in a research study about your student's perceptions of self-efficacy, motivation, and academic self-efficacy. Your student was selected because he or she has failed two or more classes in high school and we would like to know more about his/her perceptions and experiences in school. The study will include a set of questions that will be compared with students from other schools. Students will be asked to complete the survey by their school counselor individually during a study hall time so that students do not miss class.

The survey has 50 questions and will take approximately 20 minutes to complete. Participants will be asked to answer questions on a numbered scale indicating how they feel most of the time. The survey and study is optional and has no bearing on your student's grades.

There are minimal risks to your child participating in this study. Participants may experience slight discomfort when reporting their self-perceptions and peer experiences. However, they are free to withdraw from the study or stop answering questions at any time without negative consequences. There is no direct benefit for participants for participating in this study. The records of this study will be kept private. All of the surveys and this signed consent form will be kept in a locked file; only the researcher for this study will have access to the records and these will be kept at Minnesota State University, Mankato, for the next three years.

By signing below, you are agreeing to allow your child to participate. Participation is voluntary and if you choose not to allow your child to participate, there will be no consequence for your child at the high school. Your student will be given a copy of this signed form if you choose to participate.

Your permission would be greatly appreciated. If you have any questions concerning this research study, you can contact me, Marguerite Wentzel, at 952-496-5164 or at mwentzel@shakopee.k12.mn.us. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, please contact Dr. Jennifer Pepperell, professor at Minnesota State University, Mankato, at 507-389-2423 or at jennifer.pepperell@mnsu.edu. You may also contact Dr. Barry Ries, Dean of Graduate Studies, or the Institutional Review Board Administrator at Minnesota State University, Mankato, 115 Alumni Foundation, Mankato, MN 56001 (telephone: 507-389-2321).

I have read the above information and understand that participation in this study is voluntary. By signing below, I give permission to my child to participate in this study.

_____   _____   _____

Print Student's Name   Parent Signature   Date

APPENDIX F

Student Assent Form

MINOR'S CONSENT TO BE A RESEARCH PARTICIPANT

MINNESOTA STATE UNIVERSITY, MANKATO

Dear Participant,

I am conducting a survey to examine students' self-efficacy, motivation, and academic self-efficacy. You were selected because you have failed two or more classes during high school, and we would like to know more about your perceptions and experiences in school. The survey is a paper and pencil assessment that will be used to gather information. You will be asked to complete this individually during a study hall time. The findings will be valuable in assisting counselors working with students.

The survey has 50 questions and will take approximately 20 minutes to complete. The survey and study are optional and have no bearing on your grades. Simply stated, this research is a study to help school counselors and other school staff better understand students.

By signing below, you are agreeing to participate with the understanding that your parent(s)/ guardian(s) have given permission for you to take part in this project. You will be participating in this study because you want to. You are under no obligation to participate, as it is completely voluntary. Your name will not be used in the study nor will it be distributed to anyone. If you choose not to participate, or if you agree at first but change your mind before or during participation, this will not in any way affect your status at your high school.

Your participation would be greatly appreciated. If you have any questions concerning this research study, you can contact me, Marguerite Wentzel, at 952-496-5164.

If you agree to participate, please sign below:

_____   _____   _____

Print Name   Student's Signature   Date

MINNESOTA STATE
UNIVERSITY
MANKATO

December 5, 2012

Dear Jennifer Pepperell, Ph.D.:

Re: IRB Proposal   entitled "[391537-2] An Investigation of At-risk Students Academic Perceptions in regards to Self-efficacy and Motivation"
Review Level: Level [II]

Your IRB Proposal has been approved as of December 5, 2012. On behalf of the Minnesota State University, I wish you success with your study. Remember that you must seek approval for any changes in your study, its design, funding source, consent process, or any part of the study that may affect participants in the study. Should any of the participants in your study suffer a research-related injury or other harmful outcome, you are required to report them to the IRB as soon as possible.

The approval of your study is for one calendar year less a day from the approval date. When you complete your data collection or should you discontinue your study, you must notify the IRB. Please include your log number with any correspondence with the IRB.

This approval is considered final when the full IRB approves the monthly decisions and active log. The IRB reserves the right to review each study as part of its continuing review process. Continuing reviews are usually scheduled. However, under some conditions the IRB may choose not to announce a continuing review. If you have any questions, feel free to contact me at irb@mnsu.edu or 507-389-5102.

The Principal Investigator (PI) is responsible for maintaining consents in a secure location at MSU for 3 years. If the PI leaves MSU before the end of the 3-year timeline, he/she is responsible for following "Consent Form Maintenance" procedures posted online.

Cordially,

Mary Hadley, Ph.D.
IRB Coordinator

Sarah Sifers, Ph.D.
IRB Co-Chair

- 1 -
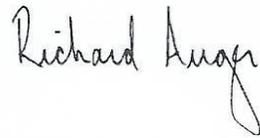
124

Richard Auger

Richard Auger, Ph.D.
IRB Co-Chair

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Minnesota State University's records.