

ASSESSING SELF-EFFICACY TO IMPROVE IMPOVERISHED STUDENTS' EDUCATION

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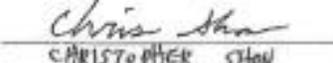
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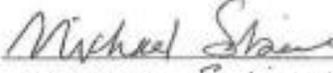
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Abstract

Students who live in low-income households tend to achieve lower scores on educational assessments despite schools' efforts. Students from low-income homes do not attend college at the same rate as students from higher income homes and have much lower college graduation rates. Previous research has shown that there are differences in the self-efficacy beliefs of these two groups of students, which could contribute to differences in achievement. In this study, self-efficacy surveys were administered to students from two schools, one that was predominately composed of economically disadvantaged students and another with a much lower percentage of economically disadvantaged students. Statistical analyses were conducted to test for significant differences in the self-efficacy beliefs of these students in an attempt to understand why so many students from low-income homes achieve lower educational goals. Results revealed a positive correlation between high general self-efficacy beliefs in middle school with high self-efficacy beliefs for success in college. No statistically significant difference was found in self-efficacy beliefs for students from predominately different household income levels as reflected by survey instruments.

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Although I have devoted much time and effort toward the fulfillment of this degree, I would be foolish to believe that I have succeeded on my own. My Lord and Savior Jesus Christ has blessed me with the knowledge and ability to complete the degree requirements. He gave me Christian parents who have supported my educational goals throughout my life and pushed me to excel. He placed me under the care of numerous teachers in elementary school and high school that inspired me and prepared me well. My teachers in the college of education shaped my thoughts and taught me how to teach. I believe Dr. Dean, Dr. Shon, and Dr. Sobiech were hand-picked for me based on my unique needs. I am thankful for the time each one has devoted to helping me in the dissertation process. Dr. Dean had faith in me, and unyielding patience, when I did not see a solution in sight. I know God will continue to direct my path as I enter the next phase of my educational career.

Dedication

This dissertation is dedicated to all of the students like me from low-income homes that encounter low expectations from society daily. My prayer for them is that they view education as a means to overcome barriers and make a better life for themselves one day.

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CHAPTER ONE

Introduction and Background of the Study

All men are created equal and are entitled to certain liberties as citizens of the United States. One such liberty that all men have is to receive a free and appropriate education. Despite educational initiatives and numerous efforts at the federal and state level, children from various demographic subgroups do not receive an equal education. According to The National Education Association (2015), the National Assessment of Educational Progress, or NAEP, has been given to students in the United States since the 1970s. These tests have consistently shown gaps in achievement for certain groups of students. Students from low-income homes, students who are not Caucasian, and students with disabilities score below their counterparts on academic assessments. While some of the gaps have narrowed over time, the gap between students from low-income households grew 40% from the 1970s to 2000. A report by Auguste, Hancock, & Laboissiere (2009) described how the achievement gap has resulted in untapped potential for American citizens year after year, which has led to a loss of hundreds of billions of dollars in potential economic gains.

In 2009, the poverty rate in the United States was 14.3% (Redd, Karver, Murphey, Moore, & Knewstub, 2011). This percentage rose to 15.1% in 2010. The percentages were even higher for certain types of families, with 40.7% of single-mother homes living in poverty. In 2011, 46.2 million Americans were officially labeled as living in poverty, with 2.8 million children classified as living in extreme poverty (Coley & Baker, 2013). This statistic is important for schools. A report published by the National Education Association

(2015) reported that American schools have experienced a continuous rise in the number of low-income students enrolled in its schools over the past few decades. The National Education Association explained that addressing the achievement gap issue is of great importance socially, economically, and morally for the United States society and its citizens. Students with low household income must be studied in order to understand how to help them counteract disadvantages.

Statement of the Problem

“Poverty can create risk in every dimension of a child’s life” (Richardson, 2008, p. 19). Problems presented by disadvantages related to low household income continue across generations, creating a cycle of low academic attainment and persistent poverty. Burney and Cross (2006) stated that there are intelligent students in low-income areas who have great potential, but these students may need extensive support in order to succeed academically. These researchers explained how these students must be convinced of the potential to escape their financial circumstances and rise above poverty by receiving help to nurture their academic potential.

Education can be used as a method to help students from low-income homes achieve higher educational goals and increase the likelihood of economic success as adults. Haveman and Smeeding (2006) stated that previous government efforts have focused attention on decreasing the correlation between parent education and descendant education through the encouragement of college attendance for students living in poverty. However, large gaps remain between college attendance rates for students from low-income homes and high-income homes, as well as college graduation rates. In 2016, 11.6% of students from the lowest quartile of household income dropped out of high school while only 2.8% of students from the highest

quartile of household income dropped out of high school (National Center for Education Statistics, 2016). While income does not determine ability, there is a strong correlation between income and educational achievement. One study found that students from predominately low-income schools start high school 3.3 grade levels behind students from higher-income schools and graduate high school 4.3 grade levels behind wealthier counterparts (Palardy, 2008).

Differences in education can play a role in determining whether students graduate from high school, enroll in or complete college, and ultimately achieve success in a career as an adult (Coley & Baker, 2013). However, in order for students to break the poverty cycle through education, students must value a good education and set high academic goals. Expectancy Value Theory describes how people's performance and choices are greatly affected by how much value they place on the task (Wigfield & Eccles, 2000). Further, the expectancy values predict future success. Therefore, if students could see the value of learning new skills and would believe in their potential for success, they could reach higher academic goals. Social Cognitive Career Theory is a set of beliefs about processes through which people make decisions regarding educational and career goals (Lent, Brown, & Hackett, 2000). For many low-income students, financial aspects and environmental barriers prevent them from pursuing certain careers or college paths. Additionally, impoverished students are in need of support to help them set higher academic and career goals and potentially break the cycle of poverty. Educators must understand the beliefs of students from low-income homes to inform the unique needs of this population of students, which could lead to a solution to persistent academic and economic achievement gaps among students and families.

Purpose of the Study/Significance of the Study

Students from low-income homes are the focus of this study because this demographic subgroup of students has been shown to perform below more advantaged counterparts on academic assessments and attend college at a lower rate, leading to lower educational attainment and less earnings as adults (Rouse & Barrow, 2006). These students face many disadvantages that prevent them from achieving their academic potential. According to the American Psychological Association (2011), a low socioeconomic status, which is based on household income and social standing, correlates with low academic achievement and poor health. This report stated that families with a low socioeconomic status, or SES, affect society and the economy. The United States needs all of its citizens to be contributing members of society in order to function well as a nation. A more educated workforce could produce greater economic gains. If the United States had an education system competitive with Finland and South Korea, the gross domestic product of America could be \$2.3 trillion higher (Auguste, Hancock, & Laboissiere, 2009). While the American education system serves some students well, demographic subgroups like low-income students are underperforming, so they are in need of educational interventions. Auguste et al. (2009) also reported that despite income disparities, closing the gap between students with low-income and high-income is an achievable goal because 17 countries that outperformed the United States on the NAEP had smaller gaps between these subgroups.

While students' socioeconomic status cannot be directly changed, low-income students can develop beneficial characteristics that are represented by resilient students. Richardson (2008) posited that resilient students are students who overcome disadvantages such as living in poverty that commonly lead to undesirable circumstances. Educational leaders have the ability

to promote interventions to help low-income students be more resilient when faced with challenges. Fostering positive personal and emotional characteristics of students can contribute to more academic success, which could increase students' likelihood of social mobility. If educators understand students' beliefs, changes could be made to improve aspects of learning that could help students living in poverty achieve higher academic goals.

Self-efficacy is the belief in one's own ability to succeed (Bandura, 1997). Self-efficacy is a beneficial characteristic of students that can increase their effort and persistence (Morales, 2014). In this study, self-efficacy is explored as a way to increase the likelihood of academic success of low-income students. Surveying students from low-income homes about their beliefs regarding their own academic abilities and their beliefs about potential success in college can contribute to the field of education by developing a better understanding of prominent beliefs for this subgroup. It may also reveal socioeconomic differences in beliefs.

While existing research is plentiful in the area of self-efficacy, there is a deficiency in research specifically focusing on how self-efficacy varies with income. If students from low-income homes have low academic or college self-efficacy, there are many implications for schools and teachers. More research is also needed to assess the relationship between general academic beliefs and college beliefs. Some students are confident in their abilities to succeed in their current placement, but these beliefs may or may not transfer to beliefs for success in college. To gain a better understanding of these areas of student beliefs, this study employed the use of two assessments of self-efficacy. The Morgan-Jinks Self-Efficacy Survey is an instrument with 30 questions that asks students to rate how strongly they agree with different statements regarding general academic beliefs (Jinks & Morgan, 1999). The College-Going Self-Efficacy Survey is an instrument with 30 questions that asks students to rate how strongly they believe in

their potential for future success in college (Gibbons & Borders, 2010). Both surveys use a 4-point Likert scale for responses. Students from low-income homes are a distinctive subgroup and will require special attention to help them rise above economic disadvantages, achieve higher educational goals, and ultimately succeed in life, so research should be specifically focused on their unique needs.

Theoretical Foundation

The theoretical framework for this study is Albert Bandura's belief theory. Bandura performed research on the topic of beliefs and stated that a person's self-efficacy, or belief in one's own ability to accomplish a goal, is a strong determining factor in the outcome of a person's efforts. His studies revealed how people embrace goals that they believe they can achieve and avoid goals they feel inadequate in reaching (Bandura, 1997). McGarty, Yzerbyt, and Spears (2002) reported that these beliefs about one's ability to accomplish goals are formed through social, cultural, and cognitive experiences. People living in the same area develop common beliefs and attitudes based on similar lifestyles. Zimmerman (2000) stated that self-efficacy is vital to a student's ability to learn. He described that academic self-efficacy is specific to certain tasks or domains and can depend on former experiences with a subject. He also found that positive academic self-efficacy beliefs could motivate students to work harder to learn a concept and choose more challenging tasks. Whether positive or negative, students' attitudes and beliefs have the ability to shape their futures.

Social Cognitive Career Theory is the conceptual framework for this study. Lent, Brown, and Hackett (2000) explained that Social Cognitive Career Theory is an explanation for the decisions made by people regarding career choices. These decisions are affected by self-efficacy, predictions about outcomes of future efforts, and numerous environmental factors.

They stated that physical characteristics and past learning also have an impact on the decisions people make regarding career choices after high school. A student's self-efficacy beliefs about his or her ability to be successful in an area and personal expectations are strongly related to actual performance (Wigfield & Eccles, 2000). These researchers explained that if students value an activity they would exert more effort and persist longer on that activity. The value placed on the activity and their expectations about their abilities are affected by affective memories as well as the perceived difficulty of the task.

Lent et al. (2000) described objective factors such as the education a person receives and financial assistance available as very influential on a person's goal setting decisions even if they do not realize or acknowledge the impact. However, financial aspects are not the only factors that determine a person's success because there are children from low-income homes who become very successful and children from high-income homes who fail to meet high goals. Lent et al. (2000) stated that other barriers prevent people from pursuing certain college paths or careers. These barriers are specific to different contexts and may change over time. Some people are able to cope with barriers, but children may need support in finding coping mechanisms or assistance in viewing a barrier as a challenge that can be overcome. Resilient students that have broken the poverty cycle had similar mindsets (Richardson, 2008). The ability to be flexible and adapt to different circumstances despite disadvantages can help impoverished students be more resilient, set higher goals, and succeed despite risk factors.

Research Questions and Null Hypotheses

The study will address the following research questions:

Question 1: How do college-going self-efficacy beliefs differ for students in a school with a high percentage of economically disadvantaged students when compared to beliefs of students in a school with a low percentage of economically disadvantaged students?

Question 2: How do low-income students' academic self-efficacy beliefs align with their college-going self-efficacy beliefs?

Hypotheses

Ha₁: There will be a statistically significant difference in scores on a survey of college-going self-efficacy beliefs for students in a school with a high percentage of economically disadvantaged students when compared with scores from students in a school with a low percentage of economically disadvantaged students.

Ha₂: There is a statistically significant relationship between students' academic self-efficacy and college-going self-efficacy beliefs for students in a school with a high percentage of economically disadvantaged students.

Null Hypotheses

H₀₁: There is no statistically significant difference between college-going self-efficacy survey scores for students in school with a high percentage of economically disadvantaged students and a school with a low percentage of economically disadvantaged students.

H₀₂: There is no statistically significant relationship between students' academic self-efficacy and college-going self-efficacy beliefs for students in a school with a high percentage of economically disadvantaged students.

Limitations and Delimitations

There are limitations of this study. Random selection was not used when choosing the participants because a specific population was needed to properly investigate research questions.

Because the sample was chosen by convenience, results should not be generalized. The low-income sample resides in a rural community with little ethnic diversity, so findings can be generalized only to schools with similar demographics and may not apply to students with different ethnicities or to low-income students in urban areas. There is also a potential for bias in self-reporting because students may not always respond truthfully or may respond how they think the teacher would want them to respond. Lastly, the researcher was unable to recruit the desired number of participants from one of the samples, which could have affected the results of statistical analyses. The students who chose not to participate may have differed greatly in self-efficacy from students who did choose to participate.

There are delimitations of this study. The researcher chose to use economically disadvantaged percentages instead of specific income levels due to privacy issues. As a result, there was diversity among students in the schools identified as having a majority of economically or non-economically disadvantaged students. The population studied included students in grades 5 through 8 in two rural schools in Tennessee because the researcher had access to this population. The schools were appropriate for the study because one serves students in a very low-income area while the other serves students in higher income area. Responses on surveys were scored using closed-ended Likert items as intended by creators of the instruments. Although open-ended questionnaires may reveal a greater insight into students' beliefs, the researcher chose to use surveys with closed-ended Likert items to increase participation, allow for numerical analysis, and minimize the interruption of teachers' instructional time.

Assumptions and Definition of Terms

Assumptions

The researcher assumed that students answered all questions on the academic self-efficacy survey and the college-going self-efficacy survey honestly and to best of their ability. The researcher assumed that students were able to accurately assess self-efficacy beliefs. It was also an assumption that gender would not affect responses to items. Per principal suggestions, select homeroom teachers in grades 5 through 8 gave the surveys to students. The researcher assumed that the teachers leading the surveys did not affect student responses, nor were students' general academic beliefs or college-going self-efficacy beliefs impacted by specific subjects taught by those teachers administering instruments.

Definitions of Terms

Economically Disadvantaged: Students are classified as economically disadvantaged if their household income is less than or equal to 185% of the Federal poverty level (U. S. Department of Education, 2015a)

Socioeconomic Status: Socioeconomic status is the social ranking of an individual related to education, job, and salary (American Psychological Association, 2011).

Title I: Title I of the Elementary and Secondary Education Act gives financial assistance to schools with high percentages of low-income families based on census poverty estimates. At least 40% of students must be low-income to qualify for program funding (U.S. Department of Education, 2015b).

Self-Efficacy: Albert Bandura defined self-efficacy as the belief in one's own ability to accomplish a goal (Bandura, 1997).

Academic Self-Efficacy: Academic self-efficacy is a person's beliefs in his or her ability to succeed in a learning environment (Jinks & Morgan, 1999).

College-Going Self-Efficacy: College-going self-efficacy is defined as students' beliefs regarding their future attendance, persistence, and potential success in college (Gibbons & Borders, 2010).

Summary

The United States has an extensive number of families who are living in poverty. This socioeconomic status is associated with lower levels of education and risk factors that complicate one's quality of life. Students who live in low-income households have lower test scores on achievement tests, graduate high school at a lower rate, and graduate from college far less often than students with a higher socioeconomic status. The poverty rate and the achievement gap between students based on household income continue to rise and cause complications for millions of individual Americans while also impacting society as a whole. Improving education for students from impoverished homes is one potential solution; however, these students must desire to reach higher academic goals and believe in their success. Self-efficacy beliefs and outcome expectations regarding college need to be understood in order to make effective changes.

Organization of the Document

Chapter one of this document has presented the background and purpose of the study. A theoretical foundation upon which the study is based has been described as well as the research questions and hypotheses. Chapter two presents a review of literature related to the topic of study, analyzes associated theories, and demonstrates how the proposed study will contribute to the educational field of knowledge. Chapter three contains information about the sample being investigated, instruments in the study, and procedures used to collect data. Results of statistical analyses are described in Chapter four alongside other realizations made during the course of the

study. A summary of findings and conclusions regarding research questions are thoroughly discussed in Chapter five in addition to suggestions for future research.

CHAPTER TWO

Review of Related Material

Although the United States is founded in the belief of equality for all its citizens, it falls short of achieving this goal. People vary by nature according to ethnicity, intellectual ability, and other characteristics and also have countless environmental and cultural differences. Regardless of genetics or backgrounds, all children are entitled to a free and appropriate education. While measures are taken by federal, state, and local governments to offer an equal education to all students, students have vast differences in educational attainment. Schools have a responsibility to investigate differences in order to understand how to equalize education and increase the likelihood of success for all students. This literature review discusses the relationship between education and attitudes, describes difficulties experienced by students from low-income homes, and explains how positive self-efficacy beliefs can lead to better outcomes for students.

Self-beliefs include a person's self-concept and self-efficacy. Self-concept, related closely to self-efficacy, is a general view of how a person sees one's self (Sander & Sanders, 2006). Self-efficacy is a person's belief in his or her ability to perform a specific skill or reach an objective and is focused on future goals. A student may have a positive self-concept if he believes he is smart, but this student's self-efficacy may refer to how strongly he believes he can earn a high grade in a specific class (Reed, Kirschner, & Jolles, 2015). Morales (2014) explained that self-efficacy, a non-intellectual characteristic of student learning, determines an individual's persistence. Self-efficacy is affected by one's own accomplishments, vicarious experiences,

feedback from parents and school members, and physiology such as anxiety (Corkett, Hatt, & Benevides, 2011). Albert Bandura (1997) stated that a person's self-efficacy, or belief in one's own ability to meet a goal, is very influential in the outcome of a person's efforts. Bandura's studies revealed how people embrace goals that they believe they can achieve and avoid goals they feel they cannot reach. These attitudes have the power to shape their futures (McGarty, Yzerbyt, & Spears, 2002). Huang (2015) and Morales (2014) also explained that belief in one's own capability of success is vital to achievement of the individual.

Albert Bandura developed the theory of self-efficacy. Bandura (1977) stated that the outcomes of several events are used to identify patterns and analyze aspects of past performances such as end results and the amount of effort exerted. He believed that self-efficacy is influenced by four factors: previous accomplishments, vicarious experience, emotions, and persuasion. Students base beliefs for their future success on previous success in similar areas. Experiences can strengthen or disconfirm beliefs that students hold about their abilities. Vicarious experiences of peers or adults in students' lives can boost positive efficacy to succeed in unfamiliar situations. When peers complete difficult tasks without many drawbacks, it can encourage others to have efficacious beliefs; however, vicarious experiences are not as impactful as personal experiences. Bandura further explained that anxiety, stress, and fear are emotional aspects that affect self-efficacy development. Students may experience physiological symptoms such as these that discourage beliefs in their capabilities. Verbal persuasion can be an effective way to convince students that they have high abilities but it cannot be used alone. For verbal persuasion to be effective, students need additional support measures, or else they may fail. Repeated failures can undo any benefits of verbal persuasion. Bandura believed a combination

of these factors greatly affects students' self-efficacy and encouraged educators to assess students' self-efficacy in order to predict students' behavior.

Related Literature

Attitudes

A positive educational attitude has the potential to help students achieve higher grades in various academic areas (Callahan, 1971; Larose, Robertson, Roy, & Legault, 1998; Ryan & Patrick, 2001; Whitin, 2007). Ryan and Patrick (2001) stated that children who have better attitudes are more motivated to learn and, in return, perform better in school in general. It is common for students to have different attitudes about different subjects they study while in school. Students may have a love for reading but despise mathematics (MacMillan, Widaman, Balow, Hemsley, & Little, 1992; Warrington, Younger, & Williams, 2000). Previous success in a subject is influential on the development of such attitudes regarding specific subjects. Positive learning experiences in the past can help students view education with optimism, just as negative experiences breed pessimism (Bloomer & Hodkinson, 2000). For example, students who excelled in reading in the past are more likely to have a positive attitude toward learning reading in subsequent years. Positive attitudes also influence greater success in a certain subject. Therefore, if a student likes mathematics because of high achievements, his positive attitude can motivate him to learn more in mathematics classes (Larose et al., 1998; MacMillan et al., 1992). In addition to increased motivation, a student with a positive disposition in a specific discipline is more likely to participate, ask questions, and seek help when needed in that subject. These characteristics lead to improvement in understanding and higher grades on assessments of various types. Risk-taking is also more common with students in subjects that they feel good about because positive dispositions are related to self-confidence. Improvements in self-

confidence can alter students' subject specific attitudes to be more productive for learning (Claxton, 2007).

Effects of attitude.

One study showed that girls with more favorable attitudes toward reading and social studies scored higher on assessments in those subjects than students with less favorable attitudes (MacMillan et al., 1992). In the same study, male students had a more positive attitude toward science than girls and scored higher on science assessments. These researchers stated that attitude played a large role in the differences in their scores. Studies have indicated that positive attitudes also correlate with higher scores in mathematics classes (Brassell, Petry, & Brooks, 1980; Cobb, Gresalfi, & Hodge, 2009). Students with better attitudes in mathematics can see the value of skills being taught and are more motivated to learn concepts. This results in higher achievement (Brassell et al., 1980).

On the other end of the spectrum, some students form negative attitudes. Educational attainment is adversely impacted due to negative dispositions (Brassell et al., 1980). The student's attitude can work against him or her, instead of improving educational efforts as positive dispositions can do. These negative attitudes result in lower assessment scores for many children. Brassell et al. (1980) further explained that anxiety and the lack of necessary skills to achieve success in a subject contribute to negative attitudes that further impede learning. In addition, many students do not put forth as much effort if their attitude is poor (Larose et al., 1998; Ryan & Patrick, 2001). It is important to note that not every student works harder in a subject when he or she favors that particular subject over others. Some children may like science better than other disciplines but still have a negative attitude toward learning in general that impedes effort in all subjects (Warrington et al., 2000).

Students with positive learning dispositions make better problem solvers and think more critically (Claxton, 2007; Whitin, 2007). They do not give up easily when faced with difficult concepts. These students are more prone to put forth extended effort and persevere until a solution is found, unlike students with poor dispositions (Bagley & Gallenberger, 1992; Whitin, 2007). Motivation, as well as confidence, is also more evident in students with positive learning dispositions (Bagley & Gallenberger, 1992; Cobb et al., 2009). As a result of said behaviors, the amount of work produced by students with positive attitudes exceeds the amount of work produced by their less motivated counterparts (Callahan, 1971; Ryan & Patrick, 2001). Research has also found that students with dispositions favorable to learning are more likely to employ previous knowledge when working with new concepts. Connections to schemata are discovered and used appropriately by many of these students (Claxton, 2007; Whitin, 2007).

Attitude can make a difference for specific groups of the school population. For students with disabilities who struggle in a particular class, it may be difficult to maintain a positive attitude. However, if teachers can help students improve their attitude, students with disabilities can actually lower their frustration level while learning that subject (MacMillan et al., 1992). For students in low ability groups, a culture of poor educational attitudes develops easier and can be cultivated strongly by peers. However, teachers can combat these negative effects through attitude improvement activities (Van de Gaer, Pustjens, Damme, & Munter, 2006). If students improve learning dispositions in one particular class it is possible for benefits to transfer to other subjects (Bloomer & Hodkinson, 2000). Fostering more positive educational attitudes can even help the school as a whole. More positive students result in more positive classrooms, better learning, and greater educational goals achieved for all students (Gunzelmann, 2008).

Students with more positive educational attitudes continue to benefit after high school. These students are more likely to attend college than their peers with less positive dispositions (Larose et al., 1998). While in college, these students learn to better adapt when faced with challenges and to control anxiety. Their educational attitudes keep them focused on achievement and help them be more successful at the collegiate level. Positive dispositions are essential for students from low socioeconomic backgrounds. The Organization for Economic Cooperation and Development (2011) reported that self-confident disadvantaged students with positive attitudes are nearly twice as likely to overcome risk factors and beat the odds as their disadvantaged counterparts with negative attitudes.

Influences on attitudes.

Attitude can be affected by a myriad of factors. Characteristics of classrooms and personal attributes of students are among factors that can positively influence educational attitudes (Brassell et al., 1980). Research has shown that students' personalities are a determining factor for some students' attitudes. Some children are more positive by nature, and this effect radiates into positive attitudes in the classroom (Brassell et al., 1980; Larose et al., 1998). Students' ethics also leave an impression (Bloomer & Hodkinson, 2000). Morals and values held by students are usually built at home; however, these standards are shown to impact a student's educational attitude at school (Collison, 1992).

Research has also revealed that the confidence level of a student correlates with his or her educational attitude (Claxton, 2007). Students with more self-confidence and a greater self-concept have a better learning disposition at school. Students who are not confident in their knowledge and abilities are negatively impacted in multiple educational areas. Positive attitudes in specific content areas are supported by a students' confidence in their own future success in

that subject. Confidence in mathematics abilities leads to better attitudes toward learning mathematics content (Brassell et al., 1980; Collison, 1992). These findings coincide with research performed in science, language arts, and social studies (MacMillan et al., 1992; Van de Gaer et al., 2006). Motivation is linked to attitudes as well. Students who are more motivated have attitudes that are more conducive to learning (Ryan & Patrick, 2001; Van de Gaer et al., 2006). Another factor that influences motivation, as well as attitudes, is the perceived usefulness of instructional content. Collison (1992) explained that students who can see how concepts taught at school will be beneficial have better attitudes toward learning concepts. In addition, understanding the necessity of skills in daily life and finding connections to other disciplines improve attitudes and help students better learn material (Collison, 1992; Whitin, 2007).

Negative influences.

Factors have been identified that hinder the development of positive learning dispositions. Gunzelmann (2008) reported that standardized testing negatively affects student attitudes toward learning. The pressure from teachers to achieve proficiency and tedious test preparation contribute to the formation of these poor dispositions toward school. Anxiety is another factor in the formation of negative learning attitudes. Students with anxiety regarding a specific subject or school in general have poor views that lead to poor performance (Larose et al., 1998; Ryan & Patrick, 2001). In a study of ability grouping by Brassell et al. (1980), researchers found that anxiety has an inverse correlation with self-concept, especially for students whose abilities are far below the average of the group. Students with disabilities in the study that received services outside of the regular classroom developed negative attitudes. Similarly, another study found that being separated from peers and the associated stigma of special education causes negative effects on learning dispositions that are not as prevalent when support

services are provided in the regular classroom (MacMillan et al., 1992). A fear of failure is also responsible for some negative dispositions. A fear of failure can keep students from participating in class, asking questions, and accepting challenges, all of which further impede learning (Claxton, 2007; Collison, 1992; Ryan & Patrick, 2001).

Peer and parent effects.

With varying ability levels within a classroom, competition with peers to achieve equitable goals can play a role in the formation of a student's negative learning attitude (Bloomer & Hodkinson, 2000; MacMillan et al., 1992). According to a study by Brassell et al. (1980), when students are grouped by ability, large differences are seen in self-concept across groups. Children in this study with low abilities exhibited increases in anxiety, lower confidence, lower performance, and negative attitudes when placed in a high ability class. However, when teachers in another study worked with students in different ability groups to build positive dispositions, all groups improved dispositions and retained skills better (Claxton, 2007).

Parent attitudes can also help or hurt children's attitudes toward education (Cobb et al., 2009; Gunzelmann, 2008). Research by George (2000) found that students have a better attitude about subjects in which parents encourage them to work hard. He reported that students benefit when parents are involved with activities such as science experiments. However, if parents do not show interest or give support, children are less likely to favorably view the subject. Two of the greatest influences on a child's attitude are society and culture (Bloomer & Hodkinson, 2000). If a child grows up surrounded by social views that favor education, the child is more likely to develop a positive learning disposition. However, some cultures do not esteem education with the same regard, and students are very receptive of this devaluation (Larose et al., 1998). Gunzlemann (2008) urged society to consider its impact and reevaluate its educational

standards. He stated that social norms could be altered in progressive ways if society fosters the formation of more positive educational attitudes.

Classroom interventions.

Many teachers get frustrated with students who have negative attitudes toward learning. Gunzlemann (2008) posited that teachers often attempt to solve problems with the students instead of addressing the problem with the environment. Bloomer and Hodkinson (2000) stated that while self-esteem and motivation are characteristics of a person, these beliefs are changeable. Teachers can assist students in making productive changes to improve their learning dispositions. Anxiety reduction techniques are vital for students who have fears toward a specific subject or school in general. Teachers can help students deal with anxiety through coping methods so that it does not hurt their views of school (Brassell et al., 1980; Gunzlemann, 2008). Another simple method that can improve attitudes is making lessons more enjoyable. Students in several studies responded to lessons that were interesting with much more positive attitudes (Brassell et al., 1980; Claxton, 2007; George, 2000). An imperative method teachers should use to improve attitudes is to explain real life uses for instructional content. Real world applications make students value the content more and view the topic favorably, increasing the amount of learning (Collison, 1992).

The structure of the class, whether conducive to learning or not, can also alter dispositions. Cobb, Gresalfi, and Hodge (2009) found that many students have better attitudes when learning in student-led classrooms where they have more freedom to explore concepts instead of passively absorbing information. Claxton (2007) explained that teachers who allow students to figure out concepts on their own instead of simply delivering content to be absorbed foster better dispositions to learning. When teachers only present one way to solve a problem as

the right way, it leaves students nothing to explore; however, serving as a facilitator of learning in student-led classrooms allows students to discover knowledge on their own with more positive attitudes. Claxton further explained that telling students that confusion is acceptable is encouraging for them. Students will sometimes get confused when faced with challenging concepts, but if they know that confusion is normal and not shameful, they can persevere with positivity (Bashant, 2016).

Another classroom intervention that can improve attitudes is teacher modeling. Students are very receptive of teacher attitudes. If teachers want students to be positive, they need to show students how to be positive (Collison, 1992; Ryan & Patrick, 2001). Additional role models such as parents, peers, and other adults can be invited to the classroom to speak about the benefits of positive attitudes and the importance of education. Claxton (2007) suggested analyzing historical figures or fictional characters from books that model positive dispositions. Changes in the classroom discourse can also help students improve attitudes. If teachers speak positively about school and the abilities of students, students will mimic this behavior. Gunzelmann (2008) stated that activities should also be implemented for students during the school day that aim to build self-confidence. By improving their confidence and attitudes, students will improve in other educational areas (George, 2000).

Societal factors.

It is important to note that some factors may be much harder for teachers to change. Social views need to be reshaped to improve students' attitudes toward education (Claxton, 2007; Warrington et al., 2000). Gunzelmann (2008) proposed that while teachers might think kids are lazy and unmotivated just for doing the minimum required work, this behavior is learned from society. While issues such as poverty and violence cannot be controlled, society can

acknowledge there is a problem and attempt to make corrections by adjusting policies in schools and by not being resistant to change. These small modifications could contribute to better attitudes toward education. Parent opinions should also be more supportive of education so that students will value it more. However, this too requires the alteration of norms in society, which is hard for teachers to change alone (Cobb et al., 2009). Standardized testing is another area in need of changes so that students will have better attitudes toward education. If states continue to pressure teachers through standardized testing, teachers will continue to pressure students, and a culture of learning just to pass a test will persist (Gunzelmann, 2008). Claxton (2007) explained that state goals should not be focused on producing good test scores because fostering a desire and capacity to learn is much more important in real life.

Poverty

In 2014, 21.1% of students in the United States were living in poverty (U.S. Census Bureau, 2015). The federal poverty level was \$22,350 in 2011 for households with four people and \$23,050 in 2012 (Addy et al., 2013). While children living in households like these are from all ethnic backgrounds, the majority of children living in poverty are white, due in part to higher percentages of white citizens in the United States. However, Elias, White, and Stepney (2014) reported that a disproportionate amount of all impoverished children are from minorities. African Americans constitute 14% of children in the United States, but 26% of impoverished children are African American. Likewise, while 23% of children in the United States are Hispanic, 32% of Hispanic children live in poverty.

Poverty is more prevalent with certain types of families. Families with single mothers as the head of the household have a four times greater chance of living in poverty (Redd et al., 2011). For single mothers from the 18-24 year old age, 67% live in poverty. Most of these

women have very young children, which is one reason why younger children have higher poverty rates than older children. These researchers also reported that poverty is more prevalent in certain areas since 90% of states with the highest poverty rates are located in the South. In the South, 48% of children live in low-income homes (Addy et al., 2013). As poverty rates rise, school percentages of students from low-income homes increase. Students with economic disadvantages now constitute the majority of school populations in the South, but similar changes are seen in many schools nationwide (National Education Association [NEA], 2015). As a result, schools in the South are more likely to have high poverty concentrations when compared to other geographic locations (Coley & Baker, 2014).

Income and education.

When schools are located in economically disadvantaged areas they tend to have less money for educational resources, lack parent involvement, and experience difficulties in attracting high quality teachers, all of which negatively impact students' learning (Burkam & Lee, 2002). Palardy (2008) reported that predominately low-income schools in his study fostered a more negative learning atmosphere. He contested that while factors such as less resources, underachieving students, and lower quality teachers are not substantial enough alone to greatly affect schools, these factors can collectively contribute to a large negative impact on learning. Results from this study also exposed how participants from lower income schools started high school with lower levels of academic achievement and learned 30% less than students from higher income schools. Many low-income schools are in rural areas. One report stated that 52% of children living in rural areas live in poverty (Addy et al., 2013). Areas such as these tend to have less economic support from local taxes due to the lack of businesses. Schools in rural areas may also have less staff and fewer opportunities for students to take advanced

curriculum classes in high school (Burney & Cross, 2006). These reasons partially explain why achievement is lower for students living in economically disadvantaged areas. While having smaller class sizes is beneficial in creating a sense of belonging and boosting confidence, Burney and Cross reported that gifted students in these impoverished schools are not challenged enough which hurts their likelihood of meeting their full potential.

In schools, socioeconomic status (SES) is more predictive of a school's test scores than many other factors, so SES is an important focus for change initiatives (Elias, White, & Stepney, 2014). Socioeconomic status has a strong impact on test scores. Low-income students perform much lower on educational assessments than higher income peers. The difference in goals achieved by students from demographic subgroups, such as gender, ethnicity, or income, is called an achievement gap (NEA, 2015). Achievement gaps are present in assessments, college, and employment. Previous educational initiatives have focused on closing achievement gaps; however, many states are now focused on Common Core State Standards and teacher evaluation systems instead (Coley & Baker, 2013; Huang, 2015). For students with different SES, an achievement gap in assessment scores has persisted for five decades and has been growing larger instead of shrinking, despite schools' efforts (Huang, 2015). Huang found that 10% of students in the lowest SES group scored as high as students in the highest SES group. This study showed that while the percentage of high achieving students is much lower for impoverished students, all students are capable of high performance. Coley and Baker (2013) explained that 2011 NAEP reading scores for 4th grade students were 29 points lower for students who were economically disadvantaged. SAT scores for older students from this demographic group were 100 points lower for students from the lowest income level when compared to students from the highest income level.

Low SES students have lower high school graduation rates and eventually make less money as adults (Rouse & Barrow, 2006). In 2012-2013, 73.3% of students from low-income homes graduated from high school, compared to the national graduation rate of 81.4% (NEA, 2015). About two-thirds of adults living in poverty attained a high school diploma or less; however, for adults who attained at least a Bachelor's degree only one-tenth live in poverty (Redd et al., 2011). As a result, children of parents with more education have a decreased likelihood of growing up in poverty (Addy et al., 2013). Colleges should offer a pathway to help low SES students rise up the social ladder if students are motivated and able. Still, this is often not reality even though intentions are good. Gaps are growing between which income groups enroll in college (Beller & Hout, 2006; Coley & Baker, 2013). Haveman and Smeeding (2006) explained that low SES students are less prepared academically, culturally, and psychologically for college. Top colleges in the United States enroll 74% of students from the highest SES and only admit 3% of students from the lowest SES. When students do enter college, college graduation rates are much lower for students from low-income homes, even at a lower rate than equal ability peers from higher income homes (Morales, 2014). Cahalan and Perna (2015) reported that in 1970, 40% of students from the highest quartile of household income graduated with a Bachelor's degree, in contrast with 6% of students from the lowest quartile of household income. While this percentage grew for students from wealthy homes to 77% in 2013, only 9% of disadvantaged peers earned a Bachelor's degree.

Explanations for differences among income groups.

Alexander, Entwisle, and Olson (2001) found that children from wealthier homes start school with an advantage over peers from poorer homes. Less fortunate peers continue to fall behind non-disadvantaged counterparts throughout their educational careers. This study also

reported that disadvantages worsen for low-income students over summer breaks from school. When tests were given to students before and after summer vacation to assess learning, results for low-income and high-income students were very different. Most low-income students maintained or lost knowledge over summer break while higher income students improved test scores, even though they learned at the same pace throughout the school year. Alexander et al. explained that this trend is believed to continue each year, placing impoverished students further behind. However, this effect can be counteracted. One study by Allington et al. (2010) described the effect of offering readily available, self-selected books for low-income students to read during summer break for three consecutive years. Researchers found that low-income students voluntarily read more often throughout the study. Students from the lowest income homes made the largest gains on the state reading assessment at the end of the three-year period, which were attributed to their exceptional lack of access to books before the study.

Gladwell (2008) argued that while test scores for wealthy students are consistently higher, students with more money are not necessarily smarter; they simply spend more time learning. Gladwell stated that wealthier students learn over the summer, without even realizing it, because they travel, visit museums, and attend enrichment camps while less fortunate peers are watching television. Similar findings were reported in a study of achievement gaps by Huang (2015), which stated that low-income students spend less time on learning and have lower levels of persistence. Alexander et al. (2001) contended that middle-class parents are more involved with their children's education and believe they have a responsibility to help students with learning. Higher-income parents challenge students with enrichment and resources, while low-income students have less cognitive stimulation and often only have opportunities similar to other socioeconomic groups through school (Burney & Cross, 2006; Cedeno et al., 2016).

Low-income students must overcome many barriers to succeed academically. According to Alexander et al. (2001), students living in poverty have problems such as family dysfunction and live in rundown communities, which tend to be more violent. Stress from environments such as these can affect student achievement throughout educational careers and even into adulthood (Cedeno, Martinez-Arias, & Bueno, 2016). Furthermore, impoverished students commonly have attention issues, which further contribute to lower academic achievement. Parental expectations also affect achievement. Parents with higher education tend to have higher income and have higher expectations for their children (Rouse & Barrow, 2006). These children reach higher goals because they place a greater value on education than low-income students as a result of higher parental expectations, parental modeling, and knowledge of potential benefits of college. High-income parents start planning and preparing their children for college from an early age while low-income parents help students prepare for college later in their school careers, if at all, and are less knowledgeable about college (Haveman & Smeeding, 2006).

There are other disadvantages faced by students due to their economic ranking. Sustained risk factors increase low-income students' chances for health problems, which in turn affect academics (Richardson, 2008). Coley and Baker (2013) reported that impoverished students are three times more likely to have health issues than non-disadvantaged peers. Low-income students also have a higher risk of teen pregnancy, leading to lower high school graduation rates for them and their descendants (Barnett & Belfield, 2006). These researchers reported that impoverished students are more likely to grow up in households dependent on welfare. Living in these conditions may distort children's views about social norms and lead to future dependence on government aid as adults. Furthermore, low SES students may miss

opportunities as a result of emergencies or unexpected expenses such as car repairs or household bills (Beller & Hout, 2006; Cedeno et al., 2016).

Future prospects.

It is difficult for students born in poverty to escape poverty. Rouse and Barrow (2006) posited that low SES parents with less ability may have children who are less able, which leads to these children having to spend more time and money than more advantaged peers to achieve the same learning goals. As a result, these students often continue a cycle of lower achievement. Rouse and Barrow explained that some researchers believe intellectual ability is inherited from parents and could explain lower academic achievement and reduced family income across generations. However, research literature varies widely on the impact of inheritance with claims ranging from 30% to 77% of intelligence attributed to genetics. Dweck (2002) explained that the concept of intelligence is a malleable trait that one could improve instead of accepting failure. She referred to this viewpoint as a growth mindset. People with a growth mindset believe they can learn new skills through time and increased effort; however, people with a fixed mindset see intelligence as unchangeable. Smart people may have either mindset. Dweck described how people with a fixed mindset believe their current skills decide their future success and tend to avoid challenges in fear of appearing dumb. Rouse and Barrow (2006) stated that income is more influential on achievement than genetics. These researchers reported an additional \$1000 added to a family's income, as well as increased per pupil school expenditures, has been shown to increase test scores and narrow achievement gaps between income groups.

While educational achievement is different for students with varied household income levels, low-income students' goals are also quite different. According to Morales (2014), low-income students may not see the link between education and economic benefits like their more

advantaged peers. Higher SES students are able to invest in education without suffering the effects of losing current funds and potential earnings due to time spent at school instead of working (Rouse & Barrow, 2006). However, impoverished students may be simply trying to survive and may not value goal setting and education investments (Burney & Cross, 2006). Rouse and Barrow (2006) stated that these students follow the culture of their social group, which often negatively impacts views of learning, while higher income students more commonly encourage positive academic behavior of peers by taking Advanced Placement courses and attending college. Differences such as these contribute to vastly different academic achievement of students from different SES.

Specific Literature

Self-Efficacy

One way of decreasing the impact of economic disadvantages for low-income students is to address their affective, or emotional, domain. While low-income is correlated with low academic achievement, Lister and Ansalone (2006) stated that non-intellectual characteristics affect academic success more than social factors. Self-efficacy, a non-intellectual characteristic, is formed in different ways. Bandura (1976) explained that students consider various sources when evaluating themselves to form self-efficacy beliefs. Students often rank present performance with previous performances to conduct evaluations. Pajares (1996) stated that while students base self-efficacy judgments for familiar tasks on previous success, when students are unfamiliar with a task, they base judgments on tasks they believe to be similar. While past performance is useful in forming predictions about students, students' own self-efficacy beliefs are more reliable in predicting future performance. Wigfield and Eccles (2000) found similar results in their study of beliefs in which study participants' beliefs better predicted mathematics

grades than students' previous grades in mathematics classes. Bandura (1976) stated that although previous achievements affect self-efficacy, students also consider their own personal standards when evaluating themselves, pushing themselves to reach new goals. Bandura identified another common source for evaluation as peer references. Students may consider their relative rank among classmates or directly compare themselves to specific peers.

Bandura (1977) explained that self-efficacy varies due to attribution to effort and ability. In order for self-efficacy to improve, success should come from skill instead of luck; otherwise, students do not place as much value on success. Excelling at an easy task does not improve self-efficacy beliefs as much as completing a challenging task because students value advanced skills. However, succeeding with lower amounts of effort can improve self-efficacy beliefs if students believe tasks are easy for them due to their superior skills. On the other hand, when students have low ability and have to exert extended effort to excel, self-efficacy does not increase as much. Corkett, Hatt, and Benevides (2011) described how time spent on an activity is not a good source of efficacy evaluation for students because students may spend a shorter amount of time on a task due to the ease of completion or an extended time period on another task due to persistence in problem solving.

Self-efficacy influence.

Morales (2014) believed that self-efficacy is the most valuable characteristic of a student's disposition. Huang (2015) reported that believing in ability is a vital characteristic for student success. Students with high self-efficacy show more persistence, spend more time learning, and have higher educational attainment. Bandura (2006) found self-efficacy influences motivation, decisions, and cognition. Students' positive self-efficacy beliefs expand freedom and options for the future, thereby increasing the likelihood of reaching goals. Students with

high efficacy set high goals even when faced with challenges, leading to better life outcomes. Zimmerman (1995) stated that self-efficacy beliefs result from academic performance, knowledge, and stress management. Higher efficacy is also associated with better participation and sustained effort with tasks. Motivation that results from self-efficacy, although related to context, can transfer to related tasks. As a result, self-efficacy can be used to predict student behavior in various academic areas (Zimmerman, 2000).

Larose, Robertson, Roy, & Legault (1998) reported that there is a reciprocal relationship between academic achievement and disposition. These researchers were unclear if positive attitudes result from positive achievement or vice versa, but they asserted that a correlation exists between the variables. Bandura (2000) stated that the Internet and libraries offer many resources for students to self-regulate their learning if they are efficacious (Bandura, 2006). Students with high efficacy are more motivated to pursue independent learning using multimedia (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). Further, higher efficacy is associated with decreased negative behavior in academic settings, partly due to feelings of control over performance. Two students with the same cognitive ability may have different performances due to their self-efficacy beliefs (Zimmerman, 1995). Students with higher self-efficacy will set higher goals and achieve those goals more often than equal ability peers with lower self-efficacy. According to Usher and Pajares (2008), a student's outlook on life as well as the goals they set may affect the way students view events. Two students who earn the same grade may interpret the grade differently based on goals they set for themselves as a result of self-efficacy beliefs.

Self-efficacy and goals.

In a study by Reay and Wiliam (1999), students evaluated abilities of themselves and their classmates informally. Some students thought their performance on the upcoming

standardized test would decide if they would have a good job as an adult. One student named Stuart was labeled smart by all of the kids and was confident in his own abilities. However, when peers that he considered to be less intelligent outscored Stuart on a practice test, he lost confidence in his potential success. Another student named Hannah had negative self-efficacy beliefs. Hannah believed her deficient spelling and multiplication skills would prevent her from doing well on the test even though she was a good writer and problem solver. She allowed the test to define her and believed it would lead to her doing nothing productive with her life. Corkett et al. (2011) explained that while academic skills are necessary for success, self-efficacy is dependent upon how students perceive their performance.

Bashant (2016) stated that hope could help students excel academically. Hope is associated with self-efficacy and increased satisfaction. When students are successful in classroom tasks, their self-efficacy rises and they become more motivated to reach goals. When goals are not reached, undesirable emotions arise, hope decreases, and self-efficacy beliefs become more negative. Self-worth is lowered too when dreams are not fulfilled, which in turn affects self-efficacy (Bandura et al., 1996). When students have low efficacy, they are less likely to set high goals themselves and are hesitant to accept others' high expectations for them (Zimmerman, Bandura, & Martinez-Pons, 1992). However, when students have high efficacy, they set high goals for themselves because they know they can achieve them and they feel a sense of pride in meeting personal goals.

Factors affecting self-efficacy.

Self-efficacy has been shown to vary with gender. In a three-year study of attitudes, Warrington, Younger, and Williams (2000) noted gender-related self-efficacy beliefs that seemed to affect student achievement. Some girls stated that they had to work harder to excel in

science than boys because boys were naturally better at science than girls. Similar results were found in another study of self-efficacy where male students reported high efficacy for many types of jobs, but females did not rate themselves as being efficacious in male dominated careers (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001). Some of the boys in a study by Warrington et al. (2000) were overconfident in their abilities and did not think preparation for tests was necessary. The boys admitted that their reduced efforts were counterproductive to goals; however, they were still reluctant to change, partially due to a culture that discouraged boys to try hard in school. Warrington et al. (2000) stated that boys specifically need help in critically evaluating their abilities and goals. This statement is supported by another study that reported that although beliefs in ability declined for both boys and girls over time, boys' self-beliefs declined at a much faster rate (Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002). The social influence of gender on subject areas or jobs can impact students' self-efficacy. Bandura (2000) explained that social factors have causal influences on behavior. People can influence others' goals because peer efficacy is considered during self-evaluations of efficacy, so social influences such as dominant gender beliefs are important to acknowledge and improve.

Self-efficacy beliefs change over time. In a longitudinal study of students' learning goals by Bloomer and Hodkinson (2000), researchers predicted and confirmed unfavorable patterns for working class students. Students from low-income homes experienced a decline in self-efficacy beliefs as they aged. Although these students had ambitious plans early in their educational career and believed that they could achieve high goals, their goals were lowered or abandoned completely due to academic difficulties faced in higher education or environmental challenges such as financial burdens. Bloomer and Hodkinson (2000) stated that it is common for new experiences to positively or negatively influence self-efficacy beliefs. Unfortunately for low-

income students, these changes were mostly negative, with the most dramatic changes in students' beliefs occurring between ages 15 and 19. Self-efficacy beliefs are thought to form much earlier in school though. Zimmerman (1995) suggested that academic beliefs begin developing before entering school and continue to develop daily. Wigfield and Eccles (2000) reported that by the first grade, students begin forming strong self-efficacy beliefs and outcome expectations. These researchers conducted a longitudinal study that revealed that students' ability beliefs declined throughout elementary and middle school, with the largest drop in self-efficacy occurring during middle school.

Reed, Kirschner, and Jolles (2015) conducted a longitudinal study of over 800 students regarding self-beliefs in schools where students were grouped by ability. Researchers reported that self-efficacy declined for most students in the study between grade 6 and 9. The biggest drop in self-efficacy was noted for students who were grouped into the lowest ability group. Reed et al. found that students who were not challenged in elementary school suffered decreases in self-efficacy. Researchers attributed belief adjustments during this age range to reduced rote learning, harder material, and more studying in high school. Contextual factors, such as student grouping or the learning environment, also affect self-efficacy. Ryan and Patrick (2001) studied middle school-aged students and assessed their beliefs in different contexts. In this study, students' efficacy changed as they moved from seventh to eighth grade. Classroom context accounted for many of the changes in the development of beliefs. Ryan and Patrick urged educators to respond to students' developmental needs to foster higher self-efficacy.

Groups have an effect on self-efficacy as well. Bandura (2000) explained a concept called collective agency that affects self-efficacy. Agency is a person's ability to exercise control over life events through taking actions. People have agency in their lives, but they are

not simply self-reliant. When something cannot be accomplished alone, humans must use collective agency by working together. When people work with peers, they influence one another's behavior for better or for worse. The culture of the group will also impact self-efficacy. For students with low efficacy, this trend is unproductive because these students tend to befriend others with low efficacy, which promotes poor beliefs. Bandura further contended that collective goals are formed based on what the group believes they have the ability to achieve. Groups with higher collective efficacy are more motivated, fight barriers easier, and achieve more goals. Collective efficacy is not simply summative though. Just because group members have high efficacy individually does not mean the entire group will have high collective efficacy. Marsh and Parker (1984) are known for their theory about Big Fish in a Little Pond. According to the theory, when high ability students are in classes with mixed ability students, social comparison boosts students' self-efficacy beliefs. When high ability students are with other high performing students though, self-beliefs are lower. Low ability students placed in high achieving groups also suffer damage to self-efficacy beliefs. This phenomenon leads to students achieving less than they are actually capable of due to group influences.

Parents have an impact on students' self-efficacy beliefs. Parents' efficacy and goals regulate children's achievement and can positively or negatively influence goals that students set (Bandura et al., 1996). Parents make goals for children based on prior grades achieved by students. Children make decisions about goals based on their personal self-efficacy in addition to their parents' beliefs in children's abilities (Zimmerman et al., 1992). Bandura (1976) stated that people model their behavior and standards after others. Seeing parents or peers succeed can prompt children to set higher goals. Children also learn to self-evaluate by observing parents, as well as methods to reward or punish themselves for reaching or failing to reach goals. Children

may select high goals for themselves along with desirable rewards for meeting their goals, similar to the way parents reward themselves or their children. Bandura explained that parents or children who use self-reinforcement methods such as these tend to reach more goals. Parents who have high efficacy themselves usually have high efficacy for their children and are effective in proactively improving their children's beliefs (Bandura et al., 2001). Bandura et al. found that students' self-efficacy beliefs strongly reflected parental aspirations. This study also reported that participating parents with high efficacy were less likely to encourage students to choose jobs in the service industry or jobs that required manual labor. Therefore, parents' self-efficacy is an important aspect of student self-efficacy to consider.

Low self-efficacy.

Failure can lead to low self-efficacy. Lack of positive self-efficacy and a fear of failure can keep students from participating in class, asking questions, and challenging themselves, all of which further impede learning (Claxton, 2007; Larose et al., 1998). Usher and Pajares (2008) stated that periodic failure does not damage self-efficacy for most people because skills can be gradually developed, which could lead to success. However, failure after extended effort can hurt self-efficacy. Seeing peers with similar ability fail to succeed can also discourage students and lower their own self-efficacy. When students face challenges, associating difficulties with ability deficiencies decreases motivation and increases anxiety (Ryan & Patrick, 2001). When students believe their ability is reflected by their deficient performance, students are more likely to goof off. Bandura (1977) stated that people who believe their coping skills will be ineffective avoid situations that are challenging. Some tasks seem daunting to students even though they may be capable of completing tasks successfully. If students do succeed in these types of situations, their self-efficacy will rise. On the other hand, if students fail in these situations, it

reinforces negative efficacy beliefs and leads to a persistent fear of failure, unless students do not value success in that particular context. Bandura further posited that realizing that one has the power to determine future success is influential for some students, but it may lead to low efficacy if students know that they lack necessary skills to achieve goals.

Low self-efficacy is problematic for students in many ways. When students have low efficacy, they do not persist when faced with challenges (Bandura, 2006). Bandura contended that people cannot be successful in all tasks, so people must choose how they allow success or failure in various aspects of life to contribute to their personal identity. If students allow themselves to get discouraged, their low efficacy could lead to stress and depression (Bandura et al., 1996). Zimmerman (2000) and Bandura (1977) found that stress could also lead to low-efficacy, so it is a reciprocal relationship. Sander and Sanders (2006) stated that students' low-efficacy beliefs are impacted by grades, teacher feedback, comparison to peers, and feedback from peers. Students with low efficacy have low confidence and are quick to point out their weaknesses. Pajares (1996) found that these students may also interpret tasks as being more difficult than they actually are, which lowers task completion rates. Failure can be productive though. Bandura (1977) concluded that if students persevere and eventually triumph, the failure could lead to success. The utility of failure is dependent upon timing and circumstances. Bashant (2016) reported that negative feelings and failure could prompt positive actions in the future if people do not lose hope. If students view the failure as an opportunity to learn, they can focus on strengths, learn from mistakes, and pursue realistic possibilities to prevail.

Classroom interventions for self-efficacy.

In the midst of negative self-beliefs, teachers have great influence on students' beliefs in their ability to succeed and can foster a culture of hope (Bashant, 2016). In order for teachers to

build self-efficacy, students' beliefs in their abilities must first be understood (Alexander et al., 2001). Corkett et al. (2011) encouraged teachers to assess the self-efficacy of each student using tools such as questionnaires and surveys to identify areas of need since self-efficacy beliefs influence academic achievement. However, researchers discovered that some students in their study did not accurately assess their actual abilities through self-efficacy surveys, especially students in younger grades. Pajares (1996) cautioned that underassessment of ability could result in avoidance of goals that students are capable of achieving. To avoid this issue, teachers should teach students how to realistically appraise self-efficacy and evaluate their own abilities (Morales, 2014; Pajares, 1996). After being taught how to properly evaluate their own efficacy students can take responsibility to improve their own education (Zimmerman, 1995).

Schulze and Schulze (2003) suggested that teachers model mastery and offer clear feedback to students so students know exactly what they need to do in order to experience success. These researchers stated that student modeling is also useful because students can see how peers who are still learning achieve mastery instead of watching the teacher who achieved mastery long ago. Schulze and Schulze also recommended helping students set achievable, challenging goals. Another way to foster higher self-efficacy is by helping students adapt to new learning environments (Reed et al., 2015). Ryan and Patrick (2001) found that it is possible to improve self-efficacy if adults respond to children's needs for independence and as well as children's changes in self-consciousness throughout adolescence. Allowing students to work in cooperative learning groups is also useful because students have more sources of assistance available to them. Ryan and Patrick further suggested teachers promote a culture of mutual respect because this increases self-efficacy and is positively correlated with increased achievement.

Self-efficacy and low-income

Economic conditions and socioeconomic status contribute to the formation of self-efficacy beliefs (Bandura, 2000). Huang (2015) described that low-income students in his study reported less persistence and less time spent learning. Conversely, higher income students in the study self-reported three times more persistence. In order to reap benefits of more positive dispositions, students from low-income backgrounds need help improving self-efficacy, even those who are gifted academically (Burney & Cross, 2006). By increasing students' self-efficacy, leaders encourage risk taking and persistence, thereby combating disadvantages. Kover and Worrell (2010) stated that people want to feel competent and have efficacious beliefs. However, students with low SES may have preconceptions about their abilities, which can lead to low self-efficacy and predispositions that make barriers hard to overcome (Usher & Pajares, 2008). Low-income parents have an effect on students' beliefs (Bandura et al., 1996). These researchers explained that as parental income increases, so do students' self-efficacy beliefs. Although parents may have difficulties changing their economic status, they can positively affect their children's efficacy by expressing a high value on education.

Negative self-efficacy beliefs are counterproductive to schools' efforts to help low-income students. Learned helplessness, feelings of inadequacy, and stress from disadvantages hurt competence and contribute to negative self-efficacy beliefs of students from low-income homes (Cedeno et al., 2016). For low-income students with low self-efficacy, school is a source of discouragement for 180 days each year (Elias et al., 2014). As low SES students repeatedly perform below more advantaged counterparts, they may associate school with punishment and lower their efficacy beliefs (Alexander et al., 2001). In schools where the majority of students live in low-income homes, most students follow the culture of the social group, which tends to

foster more negative academic attitudes (Rouse & Barrow, 2006). This negative culture could lead to lower efficacy beliefs (Bandura, 2000). However, low achievement is not inevitable for students with a low socioeconomic status (Cedeno et al., 2016). These students can overcome barriers if adults offer support and focus on improving personal characteristics including self-efficacy. The achievement gap for students from low-income households must be addressed to combat negative self-efficacy (NEA, 2015). It is imperative that American schools focus on narrowing achievement gaps so that education can truly be equal for all students.

Educators can facilitate positive changes in students' self-efficacy (Zimmerman, 2000). Elias et al. (2014) asserted that leaders can promote higher self-efficacy through socio-emotional and character programs. When conducted at school these programs have been shown to improve behaviors, attitudes, and knowledge. Improving students' beliefs in their abilities to succeed and helping them see the value of education can make curriculum or instructional initiatives more effective, in addition to other benefits reaped by students. If educators can foster positive self-efficacy in some students, these students can impact others' self-efficacy because positive learning dispositions are contagious (Claxton, 2007). Claxton also recommended using activities that encourage students to have positive character traits, more courage, and higher confidence to help students improve self-efficacy. By building students' self-efficacy educators can increase low-income students' likelihood of academic success (Morales, 2014).

Social Mobility

Social mobility is the movement from one economic group to a higher economic group. During the Great Depression it was common for Americans to be in the lowest social class, but many people raised their social status when the Depression ended (Beller & Hout, 2006). These changes in social mobility did not affect society much due to the fact that most people were still

on equal ground. However, Beller and Hout (2006) stated that large changes in economic inequalities occurred during the 1970s, 1980s, and 1990s. Economic disparities combined with less social mobility during this time made the rich richer and the poor poorer. The economic recession of 2007 also impacted social inequalities, especially in households led by women (Redd et al., 2011). Coley and Baker (2013) reported that negative effects persisted for years after the recession and worsened difficulties faced by children living in poverty. Beller and Hout (2006) stated that for many people in poverty socioeconomic inequality is a prevailing issue that is associated with social mobility. Being at the top of the social ladder has great advantages while being at the bottom has severe drawbacks. These researchers explained that children inherit advantages and disadvantages from parents based on income and social status. Claxton (2007) described how mirror neurons in the brain have the power to influence people to copy behavior around them. This is believed to be how dispositions and cultures transfer across generations.

Beller and Hout (2006) stated that as inequalities grow further apart, people tend to stay in their socioeconomic status, and it becomes even harder for low-income citizens to achieve social mobility. Wealthy parents give wealth to their children, which provides more advantages such as living in better neighborhoods, attending higher quality schools, and accumulating college funds. Beller and Hout found that as adults most participants stayed in the same income quartile that they grew up in as children. This study also revealed that some jobs have very high intergenerational links. For example, 66% of men who farmed had fathers who also farmed. At the conclusion of a 40-year longitudinal study, Dubow, Boxer, and Huesmann (2009) reported the successful use of parental education level when participating students were 8 years old in determining the educational and career success of the participants forty years later at age 48.

This relationship was attributed to the fact that parents with higher educational attainment set higher educational goals for their children, which led to better jobs for children of more educated parents. Correlations such as these can lead students from low-income homes to believe that opportunities are out of reach for them; however, students need to know that the capacity to learn is not fixed (Claxton, 2006).

Society believes that education can lessen disparities among students from high and low-income households (Coley & Baker, 2013). A better education should lead to higher income, more respectable careers, and higher socioeconomic ranking, which should reduce the likelihood of children from low-income households leading low-income households as adults (Rouse & Barrow, 2006). If educators could foster the talent of students with academic promise from low-income homes, more students could break the poverty cycle (Burney & Cross, 2006). Although intentions are good education does not produce the same results for all students. Palardy (2008) stated that students who attend predominately low-income schools enter high school with ability levels 3.3 grade levels behind students from high-income schools and graduate 4.3 grade levels behind wealthier counterparts. This further exacerbates the gap between academic achievements and college outcomes for students with different socioeconomic statuses.

Resiliency.

Morales (2014) defined academic resilience as the ability of students to achieve high academic goals despite disadvantages. He stated that some resilient children from low-income homes beat the odds and rise above poverty. Morales believed that understanding how these students succeed can help teachers assist more students in breaking the cycle of poverty.

Resiliency is believed to be a characteristic that explains why poverty does not produce the same academic or economic outcomes for all impoverished students (Richardson, 2008). Richardson

stated that resilience is the product of personal characteristics and supportive relationships. Internal factors of resilience include intelligence and coping methods, while external factors include school and family aspects. Family, relationships, socioeconomic status, and health affect resiliency. Claxton (2007) explained that resilient students are more determined to reach goals. While it is possible to get good grades without being resilient or a good learner, resilient students learn to adapt to new situations and persevere when difficulties arise. Bandura (2000) posited that self-efficacy determines students' resiliency when faced with challenges. Similar results were found in a study by Morales in 2014 that researched fifty minority students who showed resiliency. Morales stated that 92% of the participants reported high self-efficacy beliefs. The combined effects of high self-efficacy and resilient behaviors hold great potential benefits for low-income students as well as other student groups.

Resilient behaviors and beliefs are separate from ability and can be taught by encouraging optimism and positive responses to challenges (Seror, Chen, & Gunderson, 2005). Richardson (2008) stated that students need support from educators to develop and use resilient behaviors as students grow and mature. Claxton (2007) recommended increasing resiliency by expanding students' capacity to learn through modeling, language shifts, and real world applications. An extended school year, year-round parent involvement programs, summer programs, and additional educational resources can also help this demographic of students improve academically (Alexander et al., 2001). By taking a proactive, preventive approach with caring adults instead of waiting for misbehavior or failure, educators can help students be more resilient (Richardson, 2008).

Resiliency is increasingly important because education can help students excel in life in general. The number of jobs that require technical training or college is rising, making higher

education more necessary for economic success (Haveman & Smeeding, 2006). Education and school achievement affect which college, if any, students choose to attend as well as their potential job prospects and economic earnings (Burkam & Lee, 2002). Some students believe that effort in school matters, while others are unable to see the connection between a good education and positive life outcomes (Destin & Oyserman, 2009). A study of educational attitudes reported that most female participants in high school understood the relationship between earning good grades and meeting their goals (Warrington et al., 2000). Some boys in the study, however, did not have these same views about school. They had jobs lined up after high school and did not see the value of learning or furthering their education. Reay and Wiliam (1999) reported that in a study of working class students, primary school students believed good test scores were equated with a successful life. These students, partially through coercion by their teacher, expressed feeling pressure to perform high on standardized tests to ensure a future in a professional career instead of a demeaning job. While good grades do not always correlate with better jobs after high school, students' academic records do play a role in competition with others during college admissions and for some future jobs (Zimmerman, 1995). Therefore, students need the best education possible to increase the likelihood of better career outcomes.

Career and college goals.

Self-efficacy is very influential on career decisions (Bandura et al., 2001). Students with higher efficacy tend to choose more prestigious jobs or careers in leadership positions. Some students in the study based their potential for success in a career on their academic capabilities instead of their current level of academic performance. These researchers recommended that educators encourage all students to exercise their full academic abilities and help students align self-efficacy beliefs with actual ability. The promotion of career decisions early in students'

school experiences can help students better prepare for their desired careers. Destin and Oyserman (2009) stated that children as young as 11 form plans and goals based on their perception of college as a viable option or not. Students who were asked to envision themselves in careers in the future and imagine paths that could be taken to achieve dreams achieved better grades and exerted more effort than students who did not plan for the future. Students' perceptions such as these and their self-efficacy beliefs can affect the projections they have for their future career or college attendance (Kirk et al., 2012).

Students' college and career plans change over time. Bloomer and Hodkinson (2000) reported that in their study of learning attitudes many students changed their mind about future goals in regards to desired careers. One student named Amanda was forced to abandon her carefree attitude and open-ended college plans due to costs of college, time commitment, and personal relationships. Amanda intended to use college as a means of escape from the working class, but difficulties related to her social class disrupted her plans. However, as Bandura (2006) stated, environmental conditions and even trivial events can impact one's goals and life outcomes. Rouse and Barrow (2006) explained that students tend to stay in college until the costs (i.e. financial expenses, loss of potential earnings, emotions) become unmanageable. Psychological aspects of college including stress and time spent studying also prohibit college success. However, support networks can help students break the poverty cycle (Richardson, 2008). Students have been shown to exceed academic expectations when they have a supportive environment, high expectations from parents, and a family who values education and hard work (Seror et al., 2005). Self-efficacy alone is not enough to help impoverished students succeed; parents and educators have a responsibility to help low-income students succeed because these

adults spend large amounts of time with students. When support is given from these sources studies have shown that college attendance increases (Burney & Cross, 2006).

“Children often become what they are labeled,” (Gunzelmann, 2008, p.87). Labels and stereotypes affect impoverished students. Students from low-income households are more likely to be in a lower ability track in school, which usually has lower expectations, contributing to the consistent lower performance of this demographic group (Huang, 2015). However, high expectations from teachers and the use of support strategies can produce long-term benefits for low-income students (Cedeno et al., 2016). The majority of parents from every socioeconomic status expect their children to graduate from high school, but parents from higher economic backgrounds more commonly expect college graduation (Rouse & Barrow, 2006). Furthermore, students whose parents have higher expectations make more positive educational decisions. These beliefs can transfer to the children’s teachers and result in higher student expectations from the teacher. According to Dubow et al. (2009), parental education affects children’s education, due in part to higher expectations. When parents model achievement and practice learning related activities, it sends a message to children what parents expect of them and encourages children to achieve higher educational goals.

College and social mobility.

Students’ educational expectations are usually lower and more accurate than their aspirations (Kirk et al., 2012). While students aspire to meet high standards, they may not believe in their ability to actually meet those standards. When students do align expectations with aspirations they are more motivated and can better regulate themselves. These researchers posited that educational aspirations are higher now than they have been in previous years. However, not all who aspire to attend college actually enroll, and not all students who attend

college actually graduate. Bergerson and Petersen (2009) stated that poor educational values can lead to an avoidance of higher education for students from low-income homes. Bloomer and Hodkinson (2000) studied teenage students' dispositions and self-efficacy beliefs related to social class. These researchers' predictions for students' education and employment achievements based on students' social class were accurate for almost every participant. Very few students in the study achieved social mobility. According to Elias et al. (2014), impoverished students may feel trapped due to difficulty in changing their SES, which leads to lower academic goals because they internalize oppression. Bandura (2006) explained that babies are born without knowledge of how to make things happen, but adults teach them how to manipulate the environment to prompt desired outcomes. Therefore, even though barriers may be present students are not simply a product of their environment. Instead, they can exercise agency or intentionally alter their situation. If students learn to attribute success to effort, they will benefit from discovering the power to affect their futures (Barab & Plucker, 2002).

Even if low SES students want to go to college, they may face difficulties in pursuing higher education. Students from low-income homes are less prepared for college and are less likely to have parents who graduated from college (Haveman & Smeeding, 2006). Low SES students may not realize the economic benefits of a college education, especially because they lose potential earnings while in college instead of working (Rouse and Barrow, 2006). These students may have to take out loans to pay for college, which is often at higher interest rates than students from wealthier families could qualify for, further widening the economic gap. Because lower income families have not attended college as frequently, they are less knowledgeable about available scholarships and financial aid opportunities (Bergerson & Petersen, 2009). However, Destin and Oyserman (2009) reported that in a study of college beliefs, students from

low-income homes made noticeable improvements in grades and studying habits when instructed about financial aid options that could make college affordable for them. These researchers stated that students may not believe college is worthy of effort or consideration if they do not see college as a real possibility, but educating students about financial aspects of college as early as possible in school can encourage students to work harder throughout school.

Using Self-Efficacy to Increase Social Mobility

Rouse and Barrow (2006) asserted that education is one promising means for social mobility for disadvantaged youth because it has the potential to produce better academic and economic outcomes for low-income students. Morales (2014) contended that a college degree is one of the most reliable ways to rise out of poverty. In order for benefits to be realized students must have high self-efficacy beliefs regarding their future success in college; however, socioeconomic status impacts attitudes and can encourage or discourage success (Warrington et al., 2000). While adults can usually see the benefit of investing time and money into potential career paths for long-term benefit, students may not understand this link (Lent et al., 2000). Morales (2014) stated that alterations in attitude can help impoverished students. Learning beliefs, such as self-efficacy, can increase the likelihood of success in college for students from low-income homes (Larose et al., 1998). Economically disadvantaged students with positive attitudes overcome barriers twice as often as their peers with negative attitudes due to increased persistence and risk taking (Organization for Economic Cooperation and Development, 2011). Therefore, the self-efficacy aspect of a student's learning disposition should not be neglected while enhancing learning. Studies have shown that even students from the lowest quartile of income can exceed academic expectations (Bloomer & Hodkinson, 2000; Seror et al., 2005).

It seems unfair that birth circumstances have such a powerful influence on life outcomes (Beller & Hout, 2006). While 85% of 8th graders in a study by Haveman and Smeeding (2006) expressed plans to attend college, the stark reality is that students with low-income attend college at much lower rates. Even when impoverished students have the same test scores and ability levels as wealthier peers, there is still a vast difference in college attendance. Although many students in the United States go to college, educational opportunities are not equal (Beller & Hout, 2006). Beller and Hout claimed that there are low SES students with high enough scores on college entrance exams to enter the top colleges in the United States; however, college admission processes and students' lack of knowledge of these processes prohibit impoverished students from gaining entrance. This results in more impoverished students attending community college instead of universities, if they even enroll at all. These students are less knowledgeable about college and do not know what to expect, leading to lower self-efficacy and affecting higher education plans. However, informing these students about college and financial aid opportunities can help them view college as a real option (Destin & Oyserman, 2009).

Improving self-efficacy.

Low-income students may feel defeated academically if they cannot see their circumstances as changeable, resulting in internalization of oppression (Elias et al., 2014). These researchers stated that it is difficult for students from low-income homes to have high efficacy or feel optimistic about the future due to barriers. Bandura (2006) posited that people could change their circumstances, shape their future, and overcome the environmental impacts through human agency. Children can be more successful academically if they believe in their ability to control their futures (Bandura et al., 1996). In a more recent study, Bandura (2006) stated that to overcome challenges, people must accurately gauge their abilities, evaluate different pathways to

meet goals, acknowledge constraints, and respond appropriately to situations to achieve success. Because students' beliefs are so important to their success for many years, self-efficacy should be assessed early and often by educators (Dubow, Boxer, & Huesmann 2009).

With so many disadvantages, students in low-income families may feel discouraged. Why would students read, write, and study harder if their future is predetermined and college is not an option for them? Growing up in an impoverished home with barriers such as these lowers students' goals (Destin & Oyserman, 2009). However, people can be producers of their environment instead of passive bystanders (Bandura, 2000). Self-efficacy can be used to improve aspirations. Schools can encourage more student success through fostering self-efficacy beliefs that encourage lifelong learning (Zimmerman, 1995). Teaching goal setting can improve self-efficacy and encourage more success simultaneously (Zimmerman et al., 1992). Schulze and Schulze (2003) recommended assessing self-efficacy beliefs of students at the beginning of each school year to inform educational decisions. Other research reported that colleges should assess dispositions and beliefs of low-income students to evaluate the risk of failure and prepare interventions to help them succeed (Larose et al., 1998). College staff in the study by Larose et al. (1998) who assessed students' learning beliefs at college entrance made better predictions about student success than staff that made predictions based on high school rank and academic exams alone. Through effective use of self-efficacy questionnaires teachers can diagnose needs and offer support to improve student self-efficacy, thereby fostering higher learning goals, increasing academic achievement, and encouraging social mobility to escape poverty.

Summaries and Critiques

Although leaders in the United States envision education as the best way for social mobility for its citizens, students from low-income households have great difficulty in

overcoming economic disadvantages (Haveman & Smeeding, 2006). America should invest in its people to improve living conditions and equalize income (Barnett & Belfield, 2006).

Increasing self-efficacy beliefs to encourage higher educational goals is one way to accomplish this goal. Jensen (2013) studied college-going self-efficacy beliefs of elementary students in a rural area using a quasi-experimental time series study. In this study Jensen tracked changes in students' self-efficacy beliefs toward college while they progressed through an informational curriculum about college. Students received instruction for a period of five days. The results showed that for the group as a whole, self-efficacy improved at a significant level for beliefs regarding acceptance to college, the likelihood of family support, and affording college costs. While Jensen reported that self-efficacy could be positively influenced with interventions, evaluating students' general academic beliefs to see if beliefs in other educational contexts affect college-going beliefs could have enhanced this study.

Hamel (2014) researched beliefs of urban middle school students, mainly from low-income homes and ethnic minorities. Hamel assessed the relationship between career self-efficacy and college-going self-efficacy. The effect of the Career Horizons Summer Program on self-efficacy was also evaluated since the program was designed to encourage students to set higher goals for the future. After completing the program, students' mean scores out of a possible 5 points rose from 3.37 to 3.61 on the college-going survey and from 4.32 to 4.58 on the career survey. This study provided additional evidence that interventions can improve self-efficacy; however, comparisons could have been made with students from higher income homes to evaluate differences in self-efficacy related to socioeconomic status. Alldred (2013) investigated income as an influential factor on self-efficacy beliefs in another study. Alldred obtained students' qualifications for federal lunch programs from the cooperating school to

investigate the link between self-efficacy beliefs and household income levels. Results revealed that students who qualified for free or reduced lunch had significantly lower self-efficacy scores on a general self-efficacy survey than wealthier peers. While this study found differences in self-efficacy beliefs for students with varying household incomes, the study could have better illustrated the differences between students' beliefs if other self-efficacy beliefs were addressed, such as college-going beliefs.

Analysis of Theories

Expectancy Value Theory

John William Atkinson is known for his Expectancy Value Theory. Wigfield and Eccles (2000) described Expectancy Value Theory as a set of ideas regarding how the value a person places on an activity affects the person's performance and decisions. Self-efficacy is an integral part of Expectancy Value Theory. Affective memories as well as the difficulty of an activity impact beliefs about students' abilities, influence what they value, and shape their expectations for future outcomes. In a study of students' aspirations Bloomer and Hodkinson (2000) reported that even though participants had ambitious plans earlier in school, participants' aspirations and the value placed on education changed a great deal through the course of the study. These students began to value education less as they encountered life stressors and other barriers including socioeconomic disadvantages, which led to lower educational achievements.

Wigfield and Eccles (2000) described that expectancy beliefs refer to predictions for future success. Outcome expectations are less realistic than self-efficacy beliefs and have weaker correlations with actual performance, but students' beliefs about expected outcomes are still beneficial to explore. Aspects that are known to influence expectancy value beliefs include usefulness of skills, financial and social costs, effort, and emotions. Bandura (1977) stated that

discrepancies may exist between a student's self-efficacy beliefs and his or her predictions future success. These discrepancies may occur if students know that a path will lead to desirable results but do not believe in their ability to achieve related goals. This could be due to inadequate academic ability or another barrier. Bloomer and Hodkinson (2000) explained how students' attitudes toward learning and their beliefs about their abilities are subject to change depending on what the learner values and deems worthwhile. These dispositions affect students' willingness to learn and their potential to succeed.

Wigfield and Eccles (2000) conducted three longitudinal studies related to Expectancy Value beliefs in mathematics, reading, music, and sports. These researchers contended that students' beliefs vary from one activity to another or across different domains. For example, high efficacy in mathematics does not necessarily translate to high efficacy in reading. Other results from the study revealed that students' self-efficacy beliefs and outcome predictions became more negative as they progressed throughout grade levels. Wigfield and Eccles explained that changes were attributed to the fact that children learn to better interpret feedback from peers and adults as they mature and begin to compare themselves to peers more frequently. One study on competency beliefs reported that from grade 1 to grade 12, beliefs in ability declined for students in the areas of language arts, mathematics, and sports (Jacobs et al., 2002). This decline in beliefs was credited to increased social comparisons with peers as students age, as well as the fact that top achievers from elementary schools must compete with other top achievers once in high school. As students in this study lowered their competency beliefs in different areas, dramatic drops were also noted in the value placed on corresponding tasks.

Value placed on education-related tasks is of utmost importance for students. Seeing concepts and skills as applicable to the real world boosts students' persistence when faced with

new tasks or challenging circumstances (Barab & Plucker, 2002). Still, the majority of students need help seeing the value of education and school-related activities. Students must believe in their potential for success and see benefits if they are going to be motivated (Elias et al., 2014). Ryan and Patrick (2001) found that academic achievement begins to decline at the beginning of adolescence. Ryan and Patrick contributed this decline to students' devaluation of education and their reduced levels of effort. However, if students acknowledge the value of education to their future, they will be more motivated and persevere longer (Kover and Worrell, 2010).

Social Cognitive Career Theory

Lent et al. (2000) stated that Social Cognitive Career Theory is a set of beliefs about how people make educational and career decisions. It is based on Albert Bandura's Social Cognitive Theory. Self-efficacy, goals, outcome predictions, and environmental factors are related to career decisions. Physical characteristics and past learning experiences have an impact, too. Other factors affecting career decisions include the education a person receives and access to financial assistance, both of which are very influential on career decisions whether or not students realize their impact. Lent et al. further explained that financial aspects do not always determine success because some children from impoverished homes excel while some children from wealthy homes fail. A student's self-efficacy has a direct effect on their career self-efficacy (Bandura et al., 2001). Efficacy beliefs with certain skills often lead to beliefs about future success in related career fields. Students with higher self-efficacy believe they have more career options because they are confident in their capability of success in many areas (Bandura et al., 1996). However, this is not true for many students with low self-efficacy.

Lent et al. (2000) explained that the environment impacts a person's choices and self-efficacy regarding career options. The environment, in turn, affects how students react to

obstacles and determines if students will pursue goals related to their interests or allow barriers to stand in their way. Lent et al. further explained that barriers related to career decisions may be objective, personal, or contextual and may change over time. Pajares (1996) described how self-efficacy beliefs affect the outcomes students expect for their lives. Two children may have the same goals and the same barriers yet view the likelihood of success in a career much differently based on their self-efficacy beliefs (Lent et al., 2000). Previous barriers faced by students personally or vicariously can also lead to expectations about their future goals and how they will cope with challenges. Lent et al. further described how a barrier might seem major or minor to students. If students are able to cope with barriers such as poverty, these students may not consider their socioeconomic status to be a barrier at all and may view it as an opportunity to grow or as a personal challenge to prove someone wrong. Other children may need support to cope with barriers, even if only through vicarious experiences of adults around them.

Kover and Worrell (2010) stated that some students are able to see the link between school and future success and may desire to have high efficacy beliefs about their ability to succeed in the future, but they may still need feedback to strengthen beliefs as well as support in reaching goals. Pajares (1996) stated that a student with high self-efficacy does not necessarily believe in his or her potential for high performance in all areas. Students may believe they have the ability to succeed in college but be unsure about completing necessary entrance requirements. Even if students have the self-efficacy beliefs and confidence needed to excel in college, their beliefs may not align with their behavior due to undesirable circumstances related to barriers. Educators have a responsibility to foster high career goals.

Unresolved Issues

While much literature is available on the topic of self-efficacy beliefs, there are gaps in literature for specific aspects of self-efficacy. Some previous researchers have conducted studies revealing lower self-efficacy beliefs for students from low-income homes, while others have reported impoverished students' low self-efficacy beliefs for education in general. However, more research is needed to understand how college-going self-efficacy beliefs vary among students from different socioeconomic backgrounds. More research is also needed of rural students in impoverished areas to increase knowledge of student beliefs in this demographic, allowing educators to better design interventions to help these students set higher educational goals (Burney & Cross, 2006). If the relationship between impoverished students' general academic self-efficacy and college-going self-efficacy was better understood, educators could identify specific areas to target to help this demographic group.

Need for Study

Students from low-income homes face many disadvantages that hinder their likelihood of educational and economic success in the future. If low-income students are going to break the poverty cycle they will need support. This study of self-efficacy beliefs reveals low-income students' needs by identifying their views about school achievements, college attendance, and their own personal abilities. This study also offers insight on self-efficacy beliefs specific to students from different household income levels. Educators can use this information to offer intervention and resources to fill gaps in impoverished students' educational services that may account for some of the underachievement of this group and help more students achieve social mobility. By striving to constantly build self-efficacy, schools can help low SES students be more resilient and increase their likelihood of social mobility (Morales, 2014).

Summary

Many factors inside and outside of the school environment have an impact on students' academic achievement. Educators have the responsibility to offer a high-quality education to all students regardless of demographics. Some factors of a student are unchangeable, but that does not mean that the impact of disadvantages cannot be lessened. By exploring aspects related to students, schools can learn about the population of students they serve to inform instructional needs. This chapter provided a synthesis of research on topics related to attitudes, low-income, self-efficacy, and social mobility.

CHAPTER THREE

Research Methodology

Introduction

In this section, procedures used by the researcher to choose samples for the study are discussed, and participant demographics are described. Two surveys used as instruments in the study, along with reliability and validity estimates, are described. Research procedures used in the organization and administration of data collection are explained in detail. This chapter concludes with descriptions of data analysis procedures and statistical tests used to analyze research questions.

Students' self-efficacy beliefs were studied using quantitative measures to gain a better understanding of the views held by groups from predominately different household income levels regarding their beliefs for potential success with education-related tasks. Data from this study could potentially add to the field of knowledge regarding best practices for teaching students from low-income homes. By exploring self-efficacy beliefs of students with low socioeconomic status and identifying differences among students with predominately different household incomes, educators can make more informed decisions regarding interventions that could help economically disadvantaged students succeed academically and have higher aspirations after graduation. Household income was the independent variable for this study and self-efficacy scores on two surveys were dependent variables that were investigated.

The percentage of families living in poverty in the United States continues to rise (Addy, Engelhardt, & Skinner, 2013). Children who grow up in poverty tend to follow similar

educational paths as their parents and make less money when they become adults (Rouse & Barrow, 2006). College attendance is a possible solution to help students rise above poverty and secure a better financial future for themselves, but even when they have the ability to excel in college impoverished students enroll and graduate from college at lower rates than peers from wealthier homes (Haveman & Smeeding, 2006). Students must have high self-efficacy in order to excel in meeting higher education goals. This study collected data about students' general academic self-efficacy beliefs and assessed college-going self-efficacy beliefs to generate useful information for schools regarding necessary intervention that could help more students from low-income homes be more successful academically, graduate from high school and college, and eventually break the poverty cycle.

Research Question 1.

How do college-going self-efficacy beliefs differ for students in a school with a high percentage of economically disadvantaged students when compared to beliefs of students in a school with a low percentage of economically disadvantaged students?

Ha₁: There will be a statistically significant difference in scores on a survey of college-going self-efficacy beliefs for students in a school with a high percentage of economically disadvantaged students when compared with scores of students in a school with a low percentage of economically disadvantaged students.

Research Question 2.

How do low-income students' academic self-efficacy beliefs align with their college-going self-efficacy beliefs?

Ha₂: There will be a statistically significant relationship between students' academic self-efficacy and college-going self-efficacy beliefs for students in a school with a high percentage of economically disadvantaged students.

Population and Sample

The study was conducted in December 2016 in a rural area of Tennessee. The target population was a predominately low-income school that is designated as a Title I school based on percentage of students from low-income households who are eligible for free and reduced meal programs. The elementary school serves students in grades Pre-K through 8 and is not ethnically diverse. The percentage of students identified as economically disadvantaged was 80% for the 2016-2017 school year. Just over one-fifth of American students were identified as economically disadvantaged in 2014 (U.S. Census Bureau, 2015). Therefore, this school is not representative for the majority of students in the United States, but it does fit the description of a predominately low-income school necessary for this study. Middle-school-age students, grades 5 through 8, were selected based on their enrollment in certain classes suggested for inclusion in the study by the building principal. This age group was used because research has shown that while attitudes are developed at all grade levels, late elementary and middle school grades are critical periods for the development of attitudes (Callahan, 1971). The target sample number was 128 total students, which is statistically appropriate for a t-test for independent samples at the .05 significance level, .50 effect level, and a power of .80. A total of 66 participants were obtained from the Title I school with the majority of students from low-income households. A convenience sample was necessary to study the target population of low-income middle school-aged students.

Another sample of 32 middle-school-age students, which was lower than the target sample size, was selected for comparisons from a nearby school located in rural Tennessee with a majority of students from higher income homes. Students in grades 6 through 8 were chosen to participate in the study. The comparison school had 36% of students identified as economically disadvantaged in the 2016-2017 school year. This sample's percentage was higher than the national percentage of 21.1% (U.S. Census Bureau, 2015). The low-income school's percentage nearly quadrupled the national average, so these two schools provided data for fair comparisons. Schools from which the samples are drawn are located within 15 miles of one another but reside in different school districts. The higher income school is surrounded by some industry in a valley, whereas the lower income school is very rural without much industry and is situated atop a mountain overlooking the valley of the other district. Exceptional students such as gifted students or students with disabilities were not identified in either sample.

Description of Instruments

The College Going Self-Efficacy Survey (CGSES) is an instrument constructed to assess beliefs regarding students' perceptions of their future for success in college (Gibbons & Borders, 2010). It was created for use with middle school aged students. Because students in this study were in grades 5 through 8, the CGSES is appropriate for use with this demographic age group. The survey is subdivided into two sections, totaling 30 descriptors (see Appendix A). The attendance section evaluates plans for college attendance related to family support, choosing a good college, earning good grades, and paying for college. The persistence subsection includes descriptors about students' beliefs regarding their abilities to maintain relationships in college, schedule classes, select an area of study, and use their education after college.

Gibbons and Borders (2010) designed the CGSES so that responses are scored according to a 4-point Likert scale (1=Not Sure, 2=Somewhat Sure, 3=Sure, 4=Very Sure). The survey has a possible range for scores from 30 to 120, with lower scores being indicative of more negative self-efficacy beliefs regarding potential for success in college. Higher scores reflect students' higher perceived efficacy beliefs for college. Reliability and validity were established by Gibbons and Borders in two phases (Gibbons & Borders, 2010). During the first phase, students in grades 6 through 8 were given the instrument, and areas needing changes were identified and altered to improve the survey. One change was the exclusion of one descriptor that had a poor correlation with others. When it was excluded from the survey, Cronbach's coefficient was higher. In Phase 2 of administration, the revised survey was given to a much larger sample of seventh grade students. Statistical tests were performed with Cronbach's alpha coefficient to find $r = .89$ for the attendance subscale and $r = .90$ for the persistence subscale. An explanatory factor analysis revealed that attendance and persistence aspects were responsible for 42.2% of variance. Gibbons and Borders concluded that the instrument is reliable and valid and recommended using the two subscales together for added accuracy.

The Morgan-Jinks Self-Efficacy Survey (MJSES) is an instrument constructed to evaluate students' perceptions regarding general academic potential (Jinks & Morgan, 1999). It was created for use with adolescents and has a reading level equivalent to grade 3. Thus, the instrument is appropriate for use with the sample population. The MJSES assesses aspects of education including confidence in different subjects, the amount of effort usually exerted, beliefs about performance compared to classmates, and the perceived importance of education (see Appendix B). Jinks and Morgan stated that out of the thirty items on the survey, thirteen are linked to ability beliefs, thirteen are related to context, and four are associated with effort. The

reliability estimate, previously established by the Jinks and Morgan, resulted in a Cronbach's alpha coefficient of .82. The survey consists of 30 Likert-style items corresponding to a 4-point scale (1=Really agree, 2=Kind of agree, 3=Kind of disagree, 4=Really disagree). The possible scores range from 30 to 120, with lower scores reflecting higher self-efficacy and higher scores reflecting lower self-efficacy beliefs (Jinks & Morgan, 1999).

Some Likert-style surveys arrange descriptors uniformly with similar beliefs from left to right where responses tend to skew toward the side of participants' dominant beliefs. However, the MJSES has descriptors arranged in mixed order with nine requiring reverse order scoring (Jinks & Morgan, 1999). Higher scores on the CGSES indicate higher self-efficacy (Gibbons & Borders, 2010). However, lower scores for most items on the MJSES reflect higher self-efficacy (Jinks & Morgan, 1999). Therefore, the researcher reversed the scale on the MJSES so that higher scores reflect higher self-efficacy beliefs on both survey. The last section of the original MJSES asks students what grades they made on their last report card in various subjects. The researcher excluded this section from the surveys given to students because correlations with grades were not being assessed in the study, so the data were unnecessary.

Research Procedures and Time Period

Ideas on which this study is based arose during doctoral classes throughout the researcher's curriculum plan. The doctoral dissertation committee approved the researcher's proposal in Fall 2016. Permission to complete the study was then sought from the Institutional Review Board at Carson-Newman University. Once approval was received, the researcher secured access to the intended sample population by formally contacting the Director of Schools from both schools. The researcher received approval from the Director of Schools from School 1 by email on November 6, 2016 and from the Director of Schools from School 2 by email on

November 16, 2016. Then, the researcher formally sought the approval of the principal from a low-income school and the principal from the higher income school. The researcher shared survey questions with principals and discussed research procedures that comprised the study.

In December 2016, the researcher emailed teachers of potential participants suggested by building principals, explaining the reason for the study and requesting assistance in recruiting student participants. After correspondence was received from cooperating teachers, printed copies of student packets were delivered to teachers for distribution of packets to participants. Student participant packets included an introductory letter that identified the researcher and explained the reason for the research study. Brief descriptions were given of the surveys that would be used in the study; however, survey names and specific information were not given to avoid any influence of early exposure to questions. Permission slips were also included in student packets (see Appendix C). Permission slips requested parental consent for students to participate in the study that would gather students' educational beliefs. Students had the opportunity to opt out of the study if they did not want to participate, and parents had the right to decline their children's participation in the study by not returning the parental permission form or by indicating their choice on the form. Teacher packets included an informational letter about the study, instructions for survey administration, and survey collection procedures (see Appendix D). Additional contact information for the researcher was also included so that teachers could ask any questions related to the research study. A class set of paper surveys was given to each teacher so that he or she would have an adequate number of copies of the survey in case all students in the classroom received parental permission for participation.

Teachers were instructed to exclude any students from the study who declined or for whom parental permission was not granted. Teachers were asked to collect and store permission

slips in a secure place since they contained student names. Once collected, the researcher stored the permission slips in a locked file cabinet for security purposes. No personally identifiable data were collected on research surveys, so no coding was necessary to ensure confidentiality. Students were told not to put their name on the surveys because all responses were intended to be anonymous. This decision was made to increase the likelihood of receiving honest answers from students. Teachers at the low-income school were asked to place all completed surveys and permission slips into a manila envelope provided by the researcher labeled “School One.” Teachers at the higher-income school put their paperwork in an envelope labeled “School Two.”

The researcher collected the surveys from each school 10 days after delivering packets. Teachers were asked to hand out student packets and administer surveys to all eligible students during this time frame. The estimated time to administer the surveys, the MJSES and the CGSES, was 15 minutes each, so this time frame allowed ample opportunity for teachers to collect permission slips and survey data without disrupting the classroom schedule. Once the researcher collected completed instruments, surveys were unpacked from envelopes and each form was labeled according to which sample it was obtained from. Students were offered chances to win gift cards in small amounts for use at nearby businesses in order to encourage participation in the study. The day that surveys were picked up, winners were drawn at random by the researcher using numbered tickets so that the researcher would not know the names of study participants. Gift cards were delivered the same day to the teachers.

The schools’ percentages of economically disadvantaged students were obtained from the school nutrition department of each district. This was used instead of specific levels of income to avoid discouraging participation. Data were interpreted based on predominate household income levels for the majority of students in each school. General academic self-efficacy of

students in the low-income school using was assessed using the Morgan-Jinks Student Efficacy Scale (MJSES) (Jinks & Morgan, 1999). Responses to each survey were scored according to a 4-point Likert scale. Each survey was administered by students' classroom teachers during an activity period as not to interrupt instruction. Because surveys only asked students about their beliefs regarding school, no harm or adverse effects were anticipated for study participants. Students were told to answer questions honestly and accurately. They were informed that survey responses would not affect their grade or result in any repercussions. Students were also informed that their participation was not required and that they could withdraw from the study at any time. The same method was used to administer the College-Going Self-Efficacy Scale (CGSES) (Gibbons, 2005). This survey was given to both the economically disadvantaged sample and the non-disadvantaged school sample to allow for comparisons between groups with predominately different household incomes regarding self-efficacy beliefs related to college. Responses were scored according to a 4-point Likert scale.

How the Data were Analyzed

Primary data analysis was conducted using Microsoft Excel Analysis ToolPak. School percentages of economically disadvantaged students were compared when samples were chosen to ensure different socioeconomic statuses were represented for the majority of each school's student population. One predominately high-income school and one predominately low-income school were used to facilitate fair comparisons. To analyze Research Question 1, the results from the CGSES were first used to find the mean for each student in both samples. The mean response for each group as a whole was also calculated and compared. The researcher conducted Levene's test for homogeneity of variance with the data sets using Microsoft Excel. Levene's test for homogeneity of variance is a common statistical test used to ensure that variances in data

are equivalent (Gastwirth, Gel, & Miao, 2009). An assumption for normality was tested using a histogram. Normality of data can be visually analyzed for outliers and gaps in data using a frequency distribution that is organized into a histogram (Ghasemi & Zahediasl, 2012). These tests were necessary to increase the likelihood of fair comparisons and draw accurate conclusions about data. To reject or fail to reject the null hypothesis for Research Question 1, a t-test for independent samples was employed to see if mean self-efficacy responses from students in the economically disadvantaged school were significantly lower than mean responses from the non-disadvantaged school at the .05 level of significance. This allowed the researcher to understand differences in college-going self-efficacy beliefs related to predominate household income levels.

Next, results were calculated separately for the CGSES and MJSES, which were both administered to the Title I sample. A Bivariate Pearson correlation was conducted with each student's score on each survey to evaluate Research Question 2 and to reject or fail to reject the null hypothesis. A Pearson correlation test was used because this test indicates the strength of a relationship between two variables and indicates whether the relationship is positive or negative (Ary, Jacobs, Sorensen, & Walker, 2014). This statistical test offered insight into how the students' general academic beliefs translated to their beliefs for success in college.

Summary

One expected outcome, based on previous research studies, was that students in the school with predominately low-income families would have significantly lower self-efficacy beliefs related to college when compared to students from the school with higher-income families. Another expected outcome was that low socioeconomic students' general academic beliefs may not transfer to their college-going self-efficacy beliefs. Students may believe in their

potential to succeed in elementary school but may not foresee college as a viable option for them, when in reality they may have great potential for success in college. Results from data analysis provided insight into the accuracy of these anticipated results in addition to providing evidence to reject the null hypotheses.

A t-test for independent samples and a Pearson correlational test were employed to test research hypotheses using data generated by the study. Data analyses were conducted using Microsoft Excel to investigate the two research questions. Responses from the CGSES given to students from varying household income levels were analyzed with statistical tests to assess Research Question 1. In order to evaluate Research Question 1, data from the MJSES were compared to data from the CGSES to assess alignment of beliefs.

CHAPTER FOUR

Results of the Data Analysis

The purpose of this research study was to understand whether there were differences in educational beliefs of students from different household income levels that could help explain why discrepancies in educational achievements have existed among students with different socioeconomic statuses over the past several decades. The researcher collected data about students' self-efficacy beliefs regarding college and school in general in an effort to understand educational decisions made by students. Students were recruited from two schools with different economic demographics. Participants took surveys in which they ranked the level of their agreement with various statements about school and college. Survey responses were scored according to a Likert Scale. This chapter presents the findings of the study and reports the data analyses.

Results Regarding Hypotheses

As described in Chapter Three, self-efficacy surveys were analyzed using statistical tests. A Bivariate Pearson Correlation was used to evaluate the relationship between general self-efficacy beliefs and college-going self-efficacy beliefs. A t-test for independent samples was used to compare college-going self-efficacy beliefs for students from schools with predominately different household income levels. These tests investigated the following research questions:

1. How do college-going self-efficacy beliefs differ for students in a school with a high percentage of economically disadvantaged students when compared to responses from students in a school with a low percentage of economically disadvantaged students?

2. How do low-income students' academic self-efficacy beliefs align with their college-going self-efficacy beliefs?

The goal of Research Question 1 was to understand if students from different economic backgrounds have statistically significant self-efficacy beliefs regarding future college success. The goal of Research Question 2 was to evaluate if a student's positive self-efficacy beliefs regarding school in general transfer to his or her beliefs for success in college. Students were invited to participate in the research study in December 2016. Two different schools were used for comparison. School 1 was predominately comprised of low-income students with 80% of the school population identified as Economically Disadvantaged, while School 2 had only 36% of the school population identified as Economically Disadvantaged. In School 1, over 100 students in grades 5 through 8 were invited to participate in the study. In this school, 66 students received parental permission and completed surveys. Participation was much lower in School 2. While over 100 students in grades 6 through 8 were invited, only 32 students received permission and participated. Due to the lack of participation in School 2, there is a chance for attrition bias. Students who chose not to participate may have differed greatly from those who did participate, which could affect results of statistical tests and limit generalizability. Data analysis was conducted on 66 surveys from School 1 and 32 surveys from School 2.

The Morgan Jinks Self-Efficacy Survey (MJSES) was administered to the participating students at School 1, the sample from the predominately low-income school. Students were asked to respond to statements about their general self-efficacy beliefs regarding their current educational placement. Students responded to statements using the following 4-point Likert scale: 1) Really Disagree, 2) Kind of Disagree, 3) Kind of Agree, and 4) Really Agree. The MJSES included items such as the following statements: I am a good math student; I will quit

school as soon as I can; I usually understand my homework assignments; and I am smart. Surveys were administered on paper and scored by the researcher. Signed parental consent forms were kept in a sealed envelope and stored in a locked cabinet. The survey instrument produced scores from 30 to 120 with 30 reflecting very low self-efficacy beliefs and 120 reflecting very high self-efficacy beliefs. Some items required reverse scoring due to being stated negatively instead of positively. The average score on the MJSES for students from School 1 was 97.21 out of a possible score of 120. This revealed that most students in the sample had moderately high self-efficacy regarding their current school placement. Responses for selected items are listed in Table 4.1. An analysis of the mean for each individual item showed that the lowest mean ($M=2.56$) was recorded in response to a statement about usually earning higher grades than other classmates. This reflected that many students disagreed to some extent about achieving high grades. The highest mean ($M=3.88$) was recorded for the statement “It is important to go to high school.” Out of a possible mean of 4, this is a high score, showing that almost all students reported a strong belief in the importance of high school.

Table 4.1

School 1 Distribution of Responses on the MJSES

Item	Really Disagree	Kind of Disagree	Kind of Agree	Really Agree
I will graduate from high school.	0.00%	1.51%	13.63%	84.85%
I will quit school as soon as I can.	75.76%	15.15%	1.51%	7.58%
What I learn in school is not important.	78.79%	7.58%	7.58%	6.06%
I am smart.	3.03%	12.12%	25.76%	59.09%
My teacher thinks I am smart.	1.51%	7.58%	34.85%	56.05%

Participants from School 1 also took the College-Going Self-Efficacy Survey (CGSES). This survey asked students to respond to statements about their self-efficacy beliefs regarding their potential to succeed in college in the future. Similar to the MJSES, students responded to

statements on the CGSES by using the following 4-point Likert scale: 1) Really Disagree, 2) Kind of Disagree, 3) Kind of Agree, and 4) Really Agree. The CGSES included items such as the following statements: I can get accepted to college; I can find a way to pay for college; I could get A's and B's in college; and I could finish college and get a degree. Surveys were administered on paper and scored by the researcher. Signed parental consent forms were kept in a sealed envelope and stored in a locked cabinet. As with the MJSES, possible scores on the CGSES ranged from 30 to 120 with higher scores reflecting higher self-efficacy. The mean for School 1 on the CGSES was 101.3939 out of a possible 120, which reflected moderately high college-going self-efficacy for participants.

A Bivariate Pearson Correlation was conducted to assess the relationship between students' general beliefs about school with their beliefs about college by using students' survey scores on the MJSES and the CGSES. This correlational test was used to evaluate the following research question:

Research Question 2: How do low-income students' academic self-efficacy beliefs align with their college-going self-efficacy beliefs?

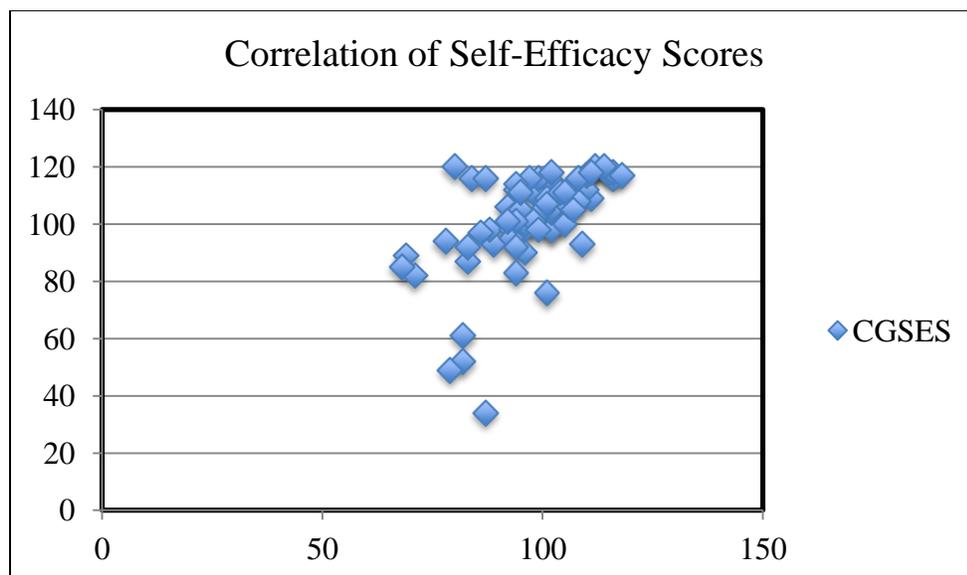
H₀₂: There is no relationship between students' academic self-efficacy and college-going self-efficacy beliefs for students in a school with a high percentage of economically disadvantaged students.

The data used in the analysis came solely from the School 1 sample (N=66). The test was conducted using students' total survey scores for the MJSES and the total survey scores for the CGSES using Microsoft Excel Analysis ToolPak. The correlational test revealed that there was a moderately positive correlation ($r=0.5735$) between students' scores on the MJSES ($M=97.2121$) and the CGSES ($M=101.3939$). A correlation of 0 would have represented no

relationship between the two sets of data, but this correlational test resulted in a correlation of 0.5735. Therefore, the null hypothesis was rejected. There was a relationship between students' self-efficacy as reflected by scores on the two instruments used. See the Correlation Scatterplot in Figure 4.1.

Figure 4.1

School 1 Correlation of Scores on the MJSES and CGSES



An individual item analysis revealed that some similar survey items had similar means for the two instruments. The statement "I am smart" on the MJSES had a mean of 3.32, while the statement "I could get A's and B's in college" on the CGSES had a mean of 3.29. This suggested that students who believed they were smart in their current grade believed they could also do well in college. However, other items had discrepancies in data. The statement "I will graduate from high school" on the MJSES had a mean of 3.83, which reflected high self-efficacy. However, a lower mean ($M=3.45$) was calculated for the items "I can go to college after high school", and "I could be smart enough to finish college" ($M=3.48$) on the CGSES. So

while students' self-efficacy was very high for graduating from high school, self-efficacy was lower for graduating from college.

To illustrate why students from higher income homes attend college at a higher rate, college-going self-efficacy was assessed at School 2 using the CGSES. The economically disadvantaged percentage for students enrolled at School 2 was much less than the percentage at School 1, so School 2 survey data was used for comparisons with the School 1 sample to evaluate differences in groups with different predominate household income levels. The mean score for School 2 (M=104.5313) was slightly higher than the mean score for School 1 (M=101.3939). As shown in Table 4.2, differences were found in the percentage of students who responded in different categories for various responses.

Table 4.2

School 1 and School 2 Distribution of Responses on the CGSES

Item	Really Disagree		Kind of Disagree	
	<u>School 1</u>	<u>School 2</u>	<u>School 1</u>	<u>School 2</u>
I would like being in college.	3.03%	0.00%	7.58%	0.00%
I can get accepted to college.	7.58%	6.25%	4.55%	3.13%
I could get A's and B's in college.	6.06%	3.13%	10.61%	6.25%
I could finish college and receive a degree.	1.52%	6.25%	10.61%	0.00%
I could pay for college even if my family cannot help me.	19.70%	12.50%	21.21%	25.00%
	Kind of Agree		Really Agree	
	<u>School 1</u>	<u>School 2</u>	<u>School 1</u>	<u>School 2</u>
I would like being in college.	27.27%	34.38%	62.12%	65.63%
I can get accepted to college.	28.79%	37.50%	59.09%	53.13%
I could get A's and B's in college.	37.88%	25.00%	45.45%	65.63%
I could finish college and receive a degree.	34.85%	12.50%	53.03%	81.25%
I could pay for college even if my family cannot help me.	33.33%	37.50%	25.76%	25.00%

A t-test for independent samples was performed to compare differences between self-efficacy scores on the CGSES for participants. In this statistical analysis, data from the School 1

sample was compared to data from School 2 sample. Because School 1 and School 2 were composed of students from predominately different household income levels, participants from the two schools were likely from different economic backgrounds. Specific levels of income were not requested as not to discourage participation. The independent variable was household income as described by the school-wide percentage of economically disadvantaged students, while the dependent variable was scores on the CGSES. The sample size for School 1 was 66 students while the sample size from School 2 was 32 students for a combined total of 98 participants. Before data was analyzed to test the research question, Levene's test of homogeneity of variance was conducted to test confirm that variances in data are equal. At the value of $p \geq .05$, equal variance is assumed between the two groups. The p-value for this data set was 0.57, which revealed that the two samples could be assessed as homogenous groups. A histogram was composed using survey data to assess assumption of normality. A visual inspection of the histogram revealed no significant outliers or gaps in data, so samples were compared as homogenous groups.

Once normality and homogeneity of samples were established, the researcher conducted a t-test for independent samples for homogenous groups with two-tails using Microsoft Excel Analysis ToolPak to evaluate the following research question:

Research Question 1: How do college-going self-efficacy beliefs differ for students in a school with a high percentage of economically disadvantaged students when compared to responses from students in a school with a low percentage of economically disadvantaged students?

H_{01} : There is no significant difference between college-going self-efficacy survey scores for students in school with a high percentage of economically disadvantaged students and a school with a low percentage of economically disadvantaged students.

For this analysis, $[df] = 96$ and $\alpha = .05$, the critical t-value was 1.984984. In order to reject the null hypothesis, the t-value would have to surpass the critical t-value. However, as listed in Table 4.3, the calculated t-value was 0.89133. Because the critical t-value was not high enough to reject the null, the researcher failed to reject the null hypothesis. There was no significant difference between the college-going self-efficacy scores for the two samples tested. The negative t value ($t = -0.89133$) indicated that the mean score on the self-efficacy survey was lower for School 1. While the mean for School 1 ($M = 101.3939$) was lower than the mean for School 2 ($M = 104.5313$), the difference was not statistically significant.

Table 4.3

Results of t-Test of Independent Samples

t-Test: Two-Sample Assuming Equal Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	101.3939394	104.53125
Variance	298.7039627	200.515121
Observations	66	32
Pooled Variance	266.9971492	
Hypothesized Mean Difference	0	
df	96	
t Stat	-0.89132918	
P(T<=t) one-tail	0.187490577	
t Critical one-tail	1.660881441	
P(T<=t) two-tail	0.374981154	
t Critical two-tail	1.984984263	

Interactions Between Hypotheses and Research Questions

The research hypothesis for Research Question 1 was that students in a school with a high percentage of economically disadvantaged students would score lower on a survey of college-going self-efficacy beliefs than students from a school with a low percentage of economically disadvantaged students. However, there was no significant difference between the two groups, so the researcher failed to reject the null hypothesis. The research hypothesis for Research Question 2 was that there would be a relationship between academic self-efficacy and college-going self-efficacy beliefs for students in a school with a high percentage of economically disadvantaged students. This hypothesis was confirmed and the null hypothesis was rejected because a moderately positive correlation was found between these two types of self-efficacy as measured by survey instruments.

Even though there was not a statistically significant difference between college self-efficacy beliefs for the samples, individual statements on the CGSES reflected differences in beliefs for several items (See Table 4.4). A large difference was observed when students were asked if they would like being in college. One hundred percent of students from School 2 responded that they “Kind of Agree” or “Really Agree” compared to about 89% of students from the economically disadvantaged group, School 1. The lowest mean for any item in the survey, which was observed on the same item for School 1 ($M=2.65$) and School 2 ($M=2.75$), was calculated for the statement “I could pay for college even if my family cannot help me”. A score of “2” on the Likert scale corresponds with “Kind of Disagree” and a score of “3” corresponds with “Kind of Agree”, so this item reflected a fair amount of uncertainty for both samples as well as lower self-efficacy that was not observed for most survey items. For School 2, the highest self-efficacy score ($M = 3.78$) for any item as reflected by CGSES was recorded for the item “I

could get my family to support my wish of finishing college”, reflecting high levels of perceived family support. For School 1, the highest self-efficacy ($M=3.59$) was recorded for the item “I can make my family proud with my choices after high school.” These results suggested that while students from School 1 were confident that they could make their family proud, they may not necessarily intend to do so by attending college. Therefore, while a significant difference was not found in overall means, differences in individual item were evident.

Table 4.4

School 1 and School 2 Comparisons for the CGSES

Item	Kind of Agree or Really Agree		Mean	Mean
	<u>School 1</u>	<u>School 2</u>	<u>School 1</u>	<u>School 2</u>
I would like being in college.	89.39%	100.00%	3.48	3.66
I can get accepted to college.	87.88%	90.63%	3.39	3.38
I could get A's and B's in college.	83.33%	90.63%	3.29	3.53
I could finish college and receive a degree.	87.88%	93.75%	3.39	3.69
I could pay for college even if my family cannot help me.	59.09%	62.50%	2.65	2.75

Summary

This study investigated the relationship between general self-efficacy and college-going self-efficacy beliefs for economically disadvantaged students and compared college-going self-efficacy beliefs for students from predominately different economic backgrounds. Data were collected from a total of 98 students in December 2016 using two self-efficacy surveys and analyzed with statistical tests to evaluate the research questions. Chapter Four has presented the results of the statistical analyses of survey data. The statistical means were calculated for samples from each group and were contrasted. Findings were compared according to predominate economic demographics for the two schools and a correlation was established between two types of self-efficacy for the economically disadvantaged sample.

CHAPTER FIVE

Conclusions, Implications, and Recommendations

The purpose of this research was to investigate what students from economically disadvantaged homes believe about their ability to succeed academically in an effort to understand why this demographic group has lower educational achievements as well as lower college graduation rates. The relationship between general academic self-efficacy and college-going self-efficacy was assessed to gain a better understanding of how these beliefs correlate, and college-going self-efficacy was compared for students from different economic backgrounds. Students in two schools, one predominately economically disadvantaged and another with a lower economically disadvantaged percentage, participated in the study by taking self-efficacy surveys that were scored according to a Likert scale. Statistical analyses including a t-test for independent samples and a Bivariate Pearson Correlation were conducted. This chapter summarizes the information gathered throughout the research process, discusses conclusions, explains implications, and makes recommendations for future studies.

The sample was drawn from School 1 and School 2, which had a school-wide economically disadvantaged percentage of 80% and 36% respectively. A combined total of 98 participants ranging from grade 5 to grade 8 from the two schools returned signed parental consent forms and completed surveys. The Morgan Jinks Self-Efficacy Survey (MJSES) assessed students' general academic beliefs while the College-Going Self-Efficacy Survey (CGSES) assessed students' college beliefs. School 1 took both surveys while School 2 took the CGSES for comparison purposes. Since predominate economic demographics were different,

analyses were conducted to reveal why students from lower economic backgrounds attend college at a lower rate than their counterparts with a higher socioeconomic status.

Conclusions

1. The Bivariate Pearson Correlation revealed a moderately positive correlation between the MJSES and the CGSES scores [$r(64) = 0.57356, p < .05$]. This showed that students' general self-efficacy beliefs in their current academic placement were correlated with their beliefs for their future success in college. Therefore, students who professed to be more confident in school in general had more confident beliefs in their ability to succeed in college.
2. While most students in School 1 had positive self-efficacy as reflected by the MJSES with a mean of 97.2121 out of a possible score of 120, some students still agreed that they wanted to quit school as soon as possible and responded similarly to other negative self-efficacy statements. Underlying reasons for such statements can hold key information that contributes to the underachievement of disadvantaged students.
3. The t-test for independent samples revealed that there was not a statistically significant difference between college self-efficacy as measured by the CGSES for the two student samples. Therefore, there is not a large difference in the way these students from predominately different household income levels viewed college and their ability to succeed in higher education.
4. School 1 had an overall mean on the CGSES of 101.3939 while School 2 had an overall mean of 104.5313; however, there was no statistically significant difference between the mean scores. Still, information can be used from data analyses that reveal differences for the two groups under investigation that can help educators better understand students from predominately different economic groups.

5. Statements on the MJSES and the CGSES revealed a slight disconnect between staying in school, graduating from high school, attending college, and graduating from college. This suggests that while students know that school is beneficial, they still may not believe in their ability to reach academic goals or may not desire to reach high goals even though they believe they are capable.

Implications

Data generated from the surveys in this study suggested that there is a correlation between general academic self-efficacy and college-going self-efficacy beliefs. For students from School 1, positive self-efficacy in their current school translated to positive beliefs for their potential to succeed in college in the future. Even though correlation does not imply causation, if there is a correlation between these two sets of self-efficacy beliefs, self-efficacy may hold potential in helping more students from low-income homes attend college. Nonintellectual factors such as attitude can impact student success in college (Larose et al., 1998). With positive self-efficacy, students are able to view obstacles as challenges and establish achievable goals for the future (Bashant, 2016). Helping students raise their self-efficacy encourages risk-taking, enhances perseverance, and increases the likelihood of overcoming disadvantages (Burney & Cross, 2006). By improving students' self-efficacy beliefs in middle school, teachers may be able positively influence students' self-efficacy beliefs about college and help them set higher academic goals. If students are convinced of their ability to succeed in college, they may be more likely to enroll in a higher education institution.

The general academic self-efficacy surveys revealed how study participants viewed education. An individual item analysis of survey statements further illuminated beliefs regarding specific areas that need to be addressed to help economically disadvantaged students overcome

barriers. For instance, the percentage of students who believed they were smart was higher than the percentage of students that stated their teachers believed the students were smart. This revealed a discrepancy in teacher and student beliefs that teachers need to acknowledge and attend to. Educators may assume students view themselves or their abilities in a certain way, but students need the opportunity to express true feelings to their teachers so that they can better understand their students' mindsets. Another area of concern was that even though some students believed they were smart, they still expressed a desire to quit school. If students from low-income homes have negative self-efficacy beliefs and are planning to quit school as soon as possible, not only will these students likely not graduate from high school, they will also not learn as much as they are capable of while still enrolled in school. Poverty is hard to overcome but resistance to education can be addressed (Gunzelmann, 2008). Self-efficacy can help people regulate their own actions and prepare multiple solution paths to overcome barriers (Bashant, 2016). Socioeconomic factors greatly affect dispositions, but teachers can positively influence students' dispositions toward education to positively affect learning and aspirations (Bloomer & Hodkinson, 2000). Teachers can use data from assessing self-efficacy to design interventions that can encourage more positive self-efficacy beliefs and positively influence learning and achievement.

The t-test for independent samples found that study participants did not have significantly different college-going self-efficacy beliefs as assessed by the CGSES even though they were from different economic backgrounds. Cahalan and Perna (2015) reported that in 2013 only 9% of economically disadvantaged students earned a Bachelors degree compared to 77% of non-disadvantaged counterparts. In the present study, it was hypothesized that such a large difference in college graduation rates would be explained by large differences in self-efficacy beliefs

regarding college on surveys; however, this was not seen. While the self-efficacy scores were lower for School 1, the school with a high percentage of economically disadvantaged students, the difference was not statistically significant, unlike the immense difference among college graduation rates. Self-efficacy alone cannot explain the disparities between students' academic beliefs and academic achievements. It would be beneficial to explore other factors such as motivation that also contribute to goal setting in education. If most of these students from School 1, many of which were from economically disadvantaged homes, professed that they wanted to attend college and that they were capable of graduating, one could expect that this would be a reality for them in the future. However, according to Haveman and Smeeding (2006), even though students may express desires to go to college, the stark reality is that a much lower percentage of students will likely attend, especially low-income students. It is possible that the students in the study will change their self-efficacy beliefs over time, becoming more negative as they finish middle school and progress through high school. Bandura (1977) stated that sometimes students' self-efficacy beliefs and actual outcomes are misaligned because students may know that something is beneficial without believing in their ability to reach that goal. Students' self-efficacy should be evaluated and used as a tool for instruction as students age so that educators can understand the population they are teaching and meet their needs.

Differences, although not significant, were found for study participants. School 2, which is composed of students from higher economic backgrounds, generally had higher self-efficacy. An analysis of individual item means revealed that the highest overall mean for any item on the CGSES ($M=3.78$) came from School 2 while the lowest overall mean for any item ($M=2.65$) came from School 1. Out of the thirty items on the survey, School 2 had higher self-efficacy scores on every item except six. When the means from individual items from the MJSES and

CGSES were compared and contrasted for School 1, inconsistencies were evident in these disadvantaged students' beliefs that have significance for educators. About 76% of students responded "Really Disagree" to the MJSES statement "I will quit school as soon as I can". However, a higher percentage of 85% responded that they "Really Agree" they will graduate from high school. This may imply that these students are not planning to drop out of high school but rather are planning to stop their educational career after high school. While 85% of the School 1 sample responded that they "Really Agree" they will graduate from high school on the MJSES, only 53% of these students responded that they "Really Agree" they will graduate from college on the CGSES. The percentage of participants that responded "Really Agree" to the likelihood of college graduation was much higher in School 2 at 81%. While household income was not exhibited as a statistically significant influential factor in this research study, it still appeared to play a role in individual statements such as this item. In the more advantaged sample from School 2, more students reported higher self-efficacy beliefs regarding college acceptance, paying for college, enjoying college, earning A's and B's in college, and completing a college degree. Students from wealthier homes tend to be more motivated academically and are better prepared for college than economically disadvantaged students (Haveman & Smeeding, 2006). Bergerson and Petersen (2009) stated that poor self-efficacy related to education could prohibit the educational progress of students with low socioeconomic status. Therefore, differences in beliefs regarding college are of great importance for teachers of disadvantaged students.

About 85% of students from the impoverished school responded that they "Really Agree" that they will graduate from high school on the MJSES. This mean for self-efficacy beliefs is consistent with actual graduation rates for the area. For the 2014-2015 school year, statewide

graduation rate was 87.8%, and the countywide percentage was very similar (Tennessee Department of Education, 2016). So while it is desirable for all of the participants to graduate from high school in the future, their self-efficacy beliefs may more accurately predict their graduation rate. The School 1 sample had a mean of 3.88 out of a possible score of 4 on the item “It is important to go to high school” but a slightly lower mean ($M=3.83$) for the item “I will graduate from high school.” Therefore, even though some of the students believed high school is important they still did not expect to graduate from high school. More precise information regarding self-efficacy beliefs related to income could be gathered by requesting students’ individual levels of household income; however, attrition of possible participants was an issue with this research study that would likely be more of a problem if specific income levels were required for participation.

Recommendations

Generalizability is limited because of convenience sampling and participant attrition, so further research is needed of low-income students in rural areas as well as urban areas to see if findings are valid for multiple groups of students. In order to better understand students, teachers should assess students’ self-efficacy beliefs in the classroom each semester or each year with pre-tests and post-tests just as they assess subject skills. Teachers should tally responses to individual items to find out which beliefs are most negative or most positive in the classroom. This may reveal the effectiveness of teaching methods and allow for the identification of negative beliefs. Students’ self-efficacy beliefs should have an impact on instructional decisions since they have the ability to positively or negatively influence education.

Since income was not shown to have a statistically significant impact on students’ self-efficacy beliefs regarding college, more questions have been raised regarding explanations for

lower academic achievements of impoverished students. It would be beneficial to conduct a longitudinal study in which students from low-income households are tracked throughout middle school, high school, and college to assess changes in self-efficacy. If students in this study had high self-efficacy about college in middle school, at what point, if any, do these self-efficacy beliefs change? In a 10-year case study, Bloomer and Hodkinson (2000) concluded that dispositions toward education change over time with the largest changes occurring during high school. In their study, factors outside of school such as finances had a significant impact on learning and goal achievement. Bloomer and Hodkinson reported that even when participants had high educational goals related to college to escape low social classes, few students succeeded. However, these researchers stated that some students did defy low expectations based on income and achieved very high goals. Future studies that collect longitudinal self-efficacy data could help educators better understand changes that may account for differences in academic outcomes of economically disadvantaged students.

Schools also need to better educate students about financial aid opportunities that can make college affordable. Students from both demographic backgrounds in this study expressed uncertainty regarding how to pay for college, so this is something educators need to address. Students need to be informed about academic scholarships, sports scholarships, grants, student loans, and other types of financial aid that will be available for them in the future. Even though these students were in middle school, educating them early about various ways to make college affordable could help students foresee college as a viable option, foster more positive college-going self-efficacy, and encourage more economically disadvantaged students to attend college.

Case studies hold great potential to understanding what leads to the educational success of students from low-income homes. Some students are resilient despite economic barriers and

are able to reach very high educational goals and overcome disadvantages (Richardson, 2008).

Bandura (2006) stated that people with resilient self-efficacy are more likely to take risks and be innovative. Case studies of students such as these may reveal positive self-efficacy, more motivation, more support from adults, or other factors that aided them in succeeding.

Uncovering this knowledge could hold the key to improving educational outcomes and increasing college attendance for impoverished students. Perhaps Tennessee high school and college students could be used for a sample since the new Tennessee Promise Scholarship offers two years of free tuition at community colleges for recent high school graduates as long as students complete eight hours of community service and maintain a 2.0 GPA. An analysis of this program would allow researchers to investigate how students' self-efficacy beliefs differ with free tuition, thus eliminating a major income-related hurdle to higher education.

Summary

The effects of poverty on education are far-reaching and have many interrelated factors that complicate the progress of students affected by its stronghold. Education is a promising means for social mobility for impoverished students. However, these students still attend college at a lower rate and fail to reach high academic goals, leading to a cycle of poverty that persists for many generations. Martin Luther King Jr. among others fought for equality where family background would have no effect on education (Rouse & Barrow, 2006). Decades later, household income, the effects of poverty on education, and the lack of social inequalities are still major issues in today's society. While self-efficacy beliefs have the ability to positively influence higher educational attainment, they are not powerful enough alone to encourage more impoverished students to attend college. While no single solution has currently been or will likely ever be identified that can help impoverished students achieve equal educational goals,

educators have a responsibility to strive to provide an equal education to all students. Multiple strategies should be employed together including increasing self-efficacy, raising motivation, improving schools in low-income areas, and providing adult support so that more students from impoverished areas can overcome stereotypes and break the poverty cycle.

References

- Addy, S., Engelhardt, W., & Skinner, C. (2013). Basic facts about low-income children. *National Center for Children in Poverty*. Retrieved from http://www.nccp.org/publications/pub_1074.html
- Alexander, K. L., Entwisle, D. R., & Olson, L. S. (2001). Schools, achievement, and inequality: A seasonal perspective. *Educational Evaluation and Policy Analysis*, 23(2), 171-191.
- Allred, C. C. (2013). *A study of eighth grade students' self-efficacy as it relates to achievement, gender, and socioeconomic status*. (Doctoral dissertation). Liberty University, Lynchburg, Virginia. Retrieved from <http://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=1717&context=doctoral>
- Allington, R. L., McGill-Franzen, A., Camilli, G., Williams, L., Graff, J., Zeig, J., Zmach, C., & Nowak, R. (2010). Addressing summer reading setback among economically disadvantaged elementary students. *Reading Psychology*, 31, 411-427.
- American Psychological Association. (2011). *Education and socioeconomic status*. Retrieved from <http://www.apa.org/pi/ses/resources/publications/education.aspx>
- Ary, D., Jacobs, L. C., Sorensen, C. K., & Walker, D. (2014). *Introduction to research in education* (9th ed.). Belmont, CA: Wadsworth Cengage Learning.
- Auguste, B. G., Hancock, B., & Laboissiere, M. (2009). *The economic impact of the achievement gap in America's schools*. McKinsey & Company. Retrieved from <http://www.mckinsey.com/industries/social-sector/our-insights/the-economic-cost-of-the-us-education-gap>
- Bagley, T., & Gallenberger, C. (1992). Assessing students' dispositions: Using journals to improve students' performance. *The Mathematics Teacher*, 85(8), 660-663.

- Bandura, A. (1976). Self-reinforcement: Theoretical and methodological considerations. *Behaviorism, 4*(2), 135–155.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development, 67*(3), 1206–1222.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.
- Bandura, A. (2000). Exercise of human agency through collective efficacy. *Current Directions in Psychological Science, 9*(3), 75–78.
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children’s aspirations and career trajectories. *Child Development, 72*(1), 187–206.
- Bandura, A. (2006). Toward a psychology of human agency. *Perspectives on Psychological Science, 1*(2), 164–180.
- Barab, S. A., & Plucker, J. A. (2002). Smart people or smart contexts? Cognition, ability, and talent development in an age of situated approaches to knowing and learning. *Educational Psychologist, 37*(3), 165-182.
- Barnett, W. S., & Belfield, C. R. (2006). Early childhood development and social mobility. *Future of Children, 16*(2), 73–98.
- Bashant, J. L. (2016). Instilling hope in students. *Journal for Leadership and Instruction, 15*(1), 17–20.
- Beller, E., & Hout, M. (2006). Intergenerational social mobility: The United States in comparative perspective. *Future of Children, 16*(2), 19–36.

- Bergerson, A. A., & Petersen, K. K. (2009). CARES: Mentoring through university outreach. *Journal of Higher Education Outreach and Engagement, 13*(1), 45–65.
- Bloomer, M., & Hodkinson, P. (2000). Learning careers: Continuity and change in young people's dispositions to learning. *British Educational Research Journal, 26*(5), 583–597.
- Brassell, A., Petry, S., & Brooks, D. M. (1980). Ability grouping, mathematics achievement, and pupil attitudes toward mathematics. *Journal for Research in Mathematics Education, 11*(1), 22–28.
- Burkam, D. T., & Lee, V. E. (2002). Inequality at the starting gate: Social background differences in achievement as children begin school. *Economic Policy Institute*. Retrieved from http://www.epi.org/publication/books_starting_gate/
- Burney, V. H., & Cross, T. L. (2006). Impoverished students with academic promise in rural settings: 10 lessons from Project Aspire. *Gifted Child Today, 29*(2), 14–21.
- Cahalan, M., & Perna, L. (2015). Indicators of higher education equity in the United States: 45 year trend report. The Pell Institute. Retrieved from http://www.pellinstitute.org/downloads/publications-Indicators_of_Higher_Education_Equity_in_the_US_45_Year_Trend_Report.pdf
- Callahan, W. J. (1971). Adolescent attitudes toward mathematics. *The Mathematics Teacher, 64*(8), 751–755.
- Cedeño, L. F., Martínez-Arias, R., & Bueno, J. A. (2016). Implications of socioeconomic status on academic competence: A perspective for teachers. *International Education Studies, 9*(4), 257–267.
- Claxton, G. (2007). Expanding young people's capacity to learn. *British Journal of Educational Studies, 55*(2), 115–134.

- Cobb, P., Gresalfi, M., & Hodge, L. L. (2009). An interpretive scheme for analyzing the identities that students develop in mathematics classrooms. *Journal for Research in Mathematics Education*, 40(1), 40–68.
- Coley, R. J., & Baker, B. (2013). Poverty and education: Finding the way forward. *The ETS Center for Research on Human Capital and Education*. Retrieved from https://www.ets.org/s/research/pdf/poverty_and_education_report.pdf
- Collison, J. (1992). Using performance assessment to determine mathematical dispositions. *The Arithmetic Teacher*, 39(6), 40–47.
- Corkett, J., Hatt, B., & Benevides, T. (2011). Student and teacher self-efficacy and the connection to reading and writing. *Canadian Journal of Education*, 34(1), 65–98.
- Destin, M., & Oyserman, D. (2009). From assets to school outcomes: How finances shape children's perceived possibilities and intentions. *Psychological Science*, 20(4), 414–418.
- Dubow, E. F., Boxer, P., & Huesmann, L. R. (2009). Long-term effects of parents' education on children's educational and occupational success: Mediation by family interactions, child aggression, and teenage aspirations. *Merrill-Palmer Quarterly*, 55(3), 224–249.
- Dweck, C. S. (2002). Beliefs that make smart people dumb. In R. J. Sternberg (Ed.), *Why smart people can be so stupid* (pp. 24-41). New Haven, Connecticut: Yale University Press.
- Elias, M. J., White, G., & Stepney, C. (2014). Surmounting the challenges of improving academic performance: Closing the achievement gap through social-emotional and character development. *Journal of Urban Learning, Teaching, and Research*, 10, 14–24.
- Gastwirth, J. L., Gel, Y. R., & Miao, W. (2009). The impact of Levene's test of equality of variances on statistical theory and practice. *Statistical Science*, 24(3), 343-360.

- George, R. (2000). Measuring change in students' attitudes toward science over time: An application of latent variable growth modeling. *Journal of Science Education and Technology*, 9(3), 213–225.
- Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology Metabolism*, 10(2), 486-489.
- Gibbons, M. M. (2005). *College-going beliefs of prospective first-generation college students: Perceived barriers, social supports, self-efficacy, and outcome expectations*. (Doctoral dissertation). The University of North Carolina, Greensboro, North Carolina. Retrieved from <http://libres.uncg.edu/ir/uncg/f/umi-uncg-1049.pdf>
- Gibbons, M. M., & Borders, D. (2010). A measure of college-going self-efficacy for middle school students. *Professional School Counseling*, 13, 234-243.
- Gladwell, M. (2008). *Outliers: The story of success*. New York: Little, Brown and Company.
- Gunzelmann, B. (2008). Hidden assumptions, attitudes, and procedures in failing schools. *Educational Horizons*, 86(2), 85–89.
- Hamel, J. (2014). *Career Camp: Elevating expectations for college-going and career self-efficacy in urban middle school students*. (Doctoral Dissertation.) Kansas State University, Manhattan, Kansas.
- Haveman, R., & Smeeding, T. (2006). The role of higher education in social mobility. *Future of Children*, 16(2), 125–150.
- Huang, H. (2015). Can students themselves narrow the socioeconomic-status-based achievement gap through their own persistence and learning time? *Education Policy Analysis Archives*, 23(108), 1-37.

- Jacobs, J. E., Lanza, S., Osgood, D. W., Eccles, J. S., & Wigfield, A. (2002). Changes in children's self-competence and values: Gender and domain differences across grades one through twelve. *Child Development, 73*(2), 509–527.
- Jensen, M. L. (2013). *Increasing college-going self-efficacy of rural fifth grade students*. (Doctoral Dissertation). Oregon State University, Corvallis, Oregon.
- Jinks, J. & Morgan, V. (1999). Children's perceived academic self-efficacy: An inventory scale. *The Clearing House, 72*(4), 224-230.
- Kirk, C. M., Lewis, R. K., Scott, A., Wren, D., Nilsen, C., & Colvin, D. Q. (2012). Exploring the educational aspirations–expectations gap in eighth grade students: implications for educational interventions and school reform, *Educational Studies, 1*-11.
- Kover, D. J., & Worrell, F. C. (2010). The influence of instrumentality beliefs on intrinsic motivation: A study of high-achieving adolescents. *Journal of Advanced Academics, 21*(3), 470–498.
- Larose, S., Robertson, D. U., Roy, R., & Legault, F. (1998). Nonintellectual learning factors as determinants for success in college. *Research in Higher Education, 39*(3), 275–297.
- Lent, R. W., Brown, S. D., Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of Counseling Psychology, 47*(1), 36-49.
- Lister, D., & Ansalone, G. (2006). Utilizing modality theory to achieve academic success. *Educational Research Quarterly, 30*(2), 20–30.
- MacMillan, D. L., Widaman, K. F., Balow, I. H., Hemsley, R. E., & Little, T. D. (1992). Differences in adolescent school attitudes as a function of academic level, ethnicity, and gender. *Learning Disability Quarterly, 15*(1), 39–50.

- Marsh, H. W., & Parker, J. W. (1984). Determinants of student self-concept: Is it better to be a relatively large fish in a small pond even if you don't learn to swim as well? *Journal of Personality and Social Psychology*, 47(1), 213-231.
- McGarty, C., Yzerbyt, V. Y., & Spears, R. (2002). *Stereotypes as Explanations: The Formation of Meaningful Beliefs about Social Groups*. Cambridge University Press.
<http://dx.doi.org/10.1017/cbo9780511489877.003>
- Morales, E. E. (2014). Learning from success: How original research on academic resilience informs what college faculty can do to increase the retention of low socioeconomic status students. *International Journal of Higher Education*, 3(3), 92–102.
- National Center for Education Statistics. (2016). *Percentage of high school dropouts among persons 16 through 24 years old (status dropout rate), by income level, and percentage distribution of status dropouts, by labor force status and educational attainment: 1970 through 2007*. Retrieved from
https://nces.ed.gov/programs/digest/d15/tables/dt15_219.75.asp
- National Education Association. (2015). Understanding the gaps: Who are we leaving behind and how far? *Backgrounder*. Retrieved from https://www.nea.org/assets/docs/18021-Closing_Achve_Gap_backgrndr_7-FINAL.pdf
- Organization for Economic Cooperation and Development. (2011). *Against the odds: disadvantaged students who succeed in school*. OECD Publishing.
<http://dx.doi.org/10.1787/9789264090873-en>
- Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research*, 66(4), 543–578.

- Palardy, G. J. (2008). Differential school effects among low, middle, and high social class composition schools: A multiple group, multilevel latent growth curve analysis. *School Effectiveness and School Improvement, 19*, 21-49.
- Reay, D., & Wiliam, D. (1999). "I'll be a nothing": Structure, agency and the construction of identity through assessment. *British Educational Research Journal, 25*(3), 343–354.
- Redd, Z., Karver, T. S., Murphey, D., Moore, K. A., & Knewstub, D. (2011). Two generations in poverty: Status and trends among parents and children in the United States, 2000-2010. *Child Trends* (Publication # 2011-25, 1-17).
- Reed, H. C., Kirschner, P. A., & Jolles, J. (2015). Self-beliefs mediate math performance between primary and lower secondary school: A large-scale longitudinal cohort study. *Frontline Learning Research, 3*(1), 36–54.
- Richardson, J. W. (2008). From risk to resilience: Promoting school–health partnerships for children. *International Journal of Educational Reform, 17*(1), 19-36.
- Rouse, C. E., & Barrow, L. (2006). U.S. elementary and secondary schools: Equalizing opportunity or replicating the status quo? *Future of Children, 16*(2), 99–123.
- Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal, 38*(2), 437–460.
- Sander, P., & Sanders, L. (2006). Understanding Academic Confidence. *Psychology Teaching Review, 12*(1), 29–42.
- Schulze, P. A., & Schulze, J. M. (2003). Believing is achieving: The implications of self-efficacy research for family and consumer sciences. *AAFCS Monograph: Research Applications in Family and Consumer Sciences, 105-113*.

- Seror, J., Chen, L., & Gunderson, L. (2005). Multiple perspectives on educationally resilient immigrant students. *TESL Canada Journal*, 22(2), 55–74.
- Tennessee Department of Education. (2016). State Report Card. Retrieved from <https://www.tn.gov/education/topic/report-card>
- U.S. Census Bureau. (2015). Income and poverty in the United States: 2014. Washington, DC: Government Printing Office.
- U. S. Department of Education. (2015a). *Eligibility manual for school meals*. Retrieved from http://www.fns.usda.gov/sites/default/files/cn/SP40_CACFP18_SFSP20-2015a.pdf
- U.S. Department of Education. (2015b). *Improving basic programs operated by local education agencies: Tile I Part A*. Retrieved from <http://www2.ed.gov/programs/titleiparta/index.html>
- Usher, E. L., & Pajares, F. (2008). Sources of self-efficacy in school: Critical review of the literature and future directions. *Review of Educational Research*, 78(4), 751–796.
- Van de Gaer, E., Pustjens, H., Damme, J. V., & Munter, A. D. (2006). Tracking and the effects of school-related attitudes on the language achievement of boys and girls. *British Journal of Sociology of Education*, 27(3), 293–309.
- Warrington, M., Younger, M., & Williams, J. (2000). Student attitudes, image and the gender gap. *British Educational Research Journal*, 26(3), 393–407.
- Whitin, P. E. (2007). The mathematics survey: A tool for assessing attitudes and dispositions. *Teaching Children Mathematics*, 13(8), 426–433.
- Wigfield, A., & Eccles, J. S. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology*, 25(1), 68-81.

Zimmerman, B. J., Bandura, A., & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American Educational Research Journal*, 29(3), 663–676.

Zimmerman, B. J. (1995). Self-efficacy and educational development. In A. Bandura (Ed.), *Self-efficacy in Changing Societies* (202-231). Cambridge University Press.

Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology*, 25(1), 82-91.

Appendices

Appendix A

College-Going Self-Efficacy Survey

COLLEGE-GOING SELF-EFFICACY SURVEY (Gibbons, 2005)	Really Disagree 1	Kind of Disagree 2	Kind of Agree 3	Really Agree 4
1. I can find a way to pay for college.				
2. I can get accepted to college.				
3. I can have family support for going to college.				
4. I can choose a good college.				
5. I can get a scholarship or grant for college.				
6. I can make an educational plan that will prepare me for college.				
7. I can make my family proud with my choices after high school.				
8. I can choose college courses that best fit my interests.				
9. I can pay for college even if my parents cannot help.				
10. I can get good grades in my high school math classes.				
11. I can get good grades in my high school science classes.				
12. I can choose the high school classes needed to get into a good college.				
13. I can know enough about computers to get into college.				
14. I can go to college after high school.				
15. I could pay for each year of college.				
16. I could get A's and B's in college.				
17. I could get my family to support my wish of finishing college.				
18. I could take care of my self in college.				
19. I could fit in at college.				
20. I could get good enough grades to get or keep a scholarship.				
21. I could finish college and receive a college degree.				
22. I could care for my family responsibilities while in college.				
23. I could set my own schedule while in college.				
24. I could make friends at college.				
25. I could get the education I need for my choice of career.				
26. I could get a job after I graduate from college.				
27. I would like being in college.				
28. I could be smart enough to finish college.				
29. I could pick the right things to study at college.				
30. I could do the classwork and homework assignments in college classes.				

Appendix B

Morgan-Jinks Self-Efficacy Survey

MORGAN-JINKS SELF-EFFICACY SURVEY (Jinks & Morgan, 1999)	Really Disagree 1	Kind of Disagree 2	Kind of Agree 3	Really Agree 4
1. I work hard in school.				
2. I could get the best grades in class if I tried enough.				
3. I would get better grades if my teacher liked me better.				
4. Most of my classmates like to do math because it is easy.				
5. I am a good science student.				
6. Most of my classmates work harder on their homework than I do.				
7. I will graduate from high school.				
8. I go to a good school.				
9. It does not matter if I do well in school.				
10. Sometimes I think an assignment is easy when the other kids in class think it is hard.				
11. I am a good social studies student.				
12. My classmates usually get better grades than I do.				
13. When I am old enough, I will go to college.				
14. I am one of the best students in my class.				
15. No one cares if I do well in school.				
16. My teacher thinks I am smart.				
17. It is important to go to high school.				
18. What I learn in school is not important.				
19. Adults who have good jobs were probably good students when they were kids.				
20. I am a good math student.				
21. I usually do not get good grades in math because it is too hard.				
22. I usually understand my homework assignments.				
23. I always get good grades when I try hard.				
24. Kids who get better grades than I do get more help from the teacher than I do.				
25. I am a good reading student.				
26. It is not hard for me to get good grades in school.				
27. I will quit school as soon as I can.				
28. I am smart.				
29. Teachers like kids even if they do not always make good grades.				
30. When the teacher asks a question, I usually know the answer even if the other kids don't.				

Appendix C
Parental Consent Form

Consent to Participate in a Research Study
Carson Newman University
Jefferson City, TN

Researcher Name: Kayla Rymer

Title of Study: Assessing Self-Efficacy to Improve the Education of Impoverished Students

Introduction

- I am a teacher in Grundy County and am working on my doctorate degree.
- I am asking students to participate in a research study about self-efficacy, which is a person's belief in his or her own ability to succeed.
- Students were chosen for possible participation based on enrollment in classes suggested by the school principal.

Purpose of the Study

- I am studying what beliefs students from all backgrounds have about their ability to succeed in college. I will use survey responses to find ways to encourage more students to enroll in college.

Description of the Study

- Students will take surveys about their beliefs about school in general and their beliefs about college. The surveys will take no more than 15 minutes.

Risks and Benefits of Participation

- No risks are expected for students.
- There are no benefits for students. However, survey results can help educators encourage more students to attend college.

Confidentiality

- The researcher will have no contact with students.
- All surveys are completely anonymous. No student names will be used.
- This signed consent form will be kept in a locked cabinet to protect privacy.

Right to Refuse/Withdraw

- Students are not required to take the surveys. Students' grades will not be affected in any way by participation.
- Students may stop taking the survey at any time.

I provide my consent for _____ to participate in this study.
(Student Name)

I **do not** provide consent for _____ to participate in this study.
(Student Name)

Parent/Guardian Signature _____

Appendix D

Letter to Teachers

Teacher Instructions:

Please hand out permission slips to students and encourage their participation in the study. I need as many students as possible to complete the surveys. Once you have received as many permission slips as possible, please administer the survey.

1. Please place students' signed permission slips in the envelope provided (labeled "School 1 Permission Slips") and keep this in a secure place for confidentiality reasons.
2. Administer the surveys to students that returned signed permission slips during a time convenient for you. The students' names should not be on the surveys because they are intended to be anonymous. Do not include the school name either.
3. I will return to collect surveys on *December 13, 2016*. Please have surveys completed by this date.
4. If students are unsure about what a question is asking, please rephrase the question for students so that they can accurately answer the question. Students are not required to complete the surveys and may stop at any time.
5. Please collect surveys from students and check to see that they did not accidentally skip any questions on the surveys.
6. Please place completed surveys in the envelope provided (labeled "School 1 Surveys") and keep this in a secure place for confidentiality reasons. I will keep this in a locked cabinet.

I am so grateful for your cooperation with my study. If I can be of any help to you now or in the future, please do not hesitate to contact me.

Respectfully,
Kayla Rymer