

## **Literature Review on the Issues of Poverty with Various Studies/Solutions to Counter These Critical Issues and Increase Student Achievement**

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### **Abstract**

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*The purpose of this article is to point out some of the issues of poverty which affect our schools not only in the state of Virginia but across the United States. This article mentions the various studies and solutions that have been written and published from different articles, journals, and dissertations to solve these critical issues and continue the fight against poverty so that the children can be successful and achieve their highest goals within their educational institution.*

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**Keywords:** Poverty, School-Based practices, Gender, The Daniel C. Fritz Perception Model

### **1.1 Introduction/Background**

There are many socioeconomic issues that affect learning and student achievement. According to the National Center of Education Statistics (NCES) in 2005, poverty has made it very challenging for students to become successful in school (Aste, 2009). Students who are consumed with societal problems are considered “at risk” (NCES, 2005; cited in Aste, 2009). “Homelessness is another big issue that affects students’ success. Students with their families had to practically live out of their suitcases, living on the street, staying with friends and trying to survive for their children and family” (Duffield et al., 2007 cited in Einspar, 2010).

Homelessness is a social issue that impacts many people (Einspar, 2010). Low socioeconomic status, hunger and unemployment have impacted many families including the children, along with many other impoverished characteristics as well (Fritz, 2018, 2019, 2020). To go more in detail: Hunger, poor finances, health-care, serious health problems that are not getting treatment, homelessness, teenage pregnancy, poor school attendance, violence in the home, behavior problems and school readiness have been critical issues that were barriers to students, keeping them from graduating and achievement in the classroom. Dropout and teen pregnancy rates have increased over the years, children not getting the proper healthcare because parents cannot afford it, children sleeping at other dwellings because parents cannot afford housing and often times end up being homeless (Banks, 2001; Duffield et al., 2007; Ferguson, Bovaird, & Mueller, 2007; Berliner, 2009; Blazer, 2009; Einspar, 2010; Fritz, 2018, 2019, 2020). Past research suggests that poverty could have been related to childhood injuries in the home. Low income families live in places that have fewer smoke detectors and fire extinguishers, more unsecured stairs and more unlocked cabinets and closets (Banks, 2001). Children in low income areas are not always being watched especially when it is time for homework (Banks, 2001).

Single parent families are working and usually have to leave their children unattended, trusting that they will be responsible to mind the siblings, do chores around the home and complete their schoolwork. Often times, this does not happen, children will sometimes get into bad situations, making wrong choices and decisions, thus affecting their student achievement (Banks, 2001). The approach to this article is to gather different studies to ensure the readers that research is continuing to find answers so that educators can win the fight against poverty. Educators must be even more determine to knock down these barriers so that children who are less fortunate can have opportunities and achieve success in the classroom.

### 1.1.1 Statement of the problem

The impact of poverty is all over the nation affecting the lives of children and their academic success. “This problem was linked to the issues of poverty and other outside factors that affected student achievement. Further, some teachers had preconceived notions that students of lower socioeconomic status would not be as successful as other children” (Fritz, 2018, pp. 2-3; 2019, p. 2). Some teachers gone through a lot of stress and pressure from administrators because their students did not do well on state standardized test (Fritz, 2018). Students cannot concentrate on their assignments, quizzes or tests because they are thinking about impoverish situations that is affecting their lives at home or in general. Children are resilient in some situations; however, need peace and harmony in their lives with less chaos and problems. It is very difficult to learn and focus on an empty stomach from being hungry. There had to be motivation on the part of the students, parents, and administration so that children can do well, learn and become functional citizen. The children have a right to a free and appropriate education (PL 94-142) free of any barriers in a safe learning environment. “Strong leadership could affect classroom instruction in a positive way, allowing passion on the teacher’s part to be an influence on the possible success of the student, even when there were issues in the home environment (Harri,2011). Other school-based factors (intervene, align, manage, and monitor the curriculum) targeted low-performing students in low-performing schools, particularly in math and reading” (Fritz 2018, pp 2-3, Fritz 2019, p. 2).

### 1.1.2 Purpose

The purpose of this article is to gather some different information and strategies on how to conquer the barriers of poverty and increase student achievement. This article will show different studies that were completed by different educators and statisticians relating to poverty and its effects on the nation’s children and their academic achievement.

### 1.1.2 Significance

There has been a lot of research done concerning poverty, homelessness, and the different barriers which cause students to not achieve their goal. More research has to be conducted to explore successful programs to meet the needs of students who are in poverty (Einspar, 2010).

School effectiveness is a multifaceted concept that involves eleven important factors such as (1) administrative functioning, (2) leadership behaviors, (3) morale, (4) level of trust, (5) culture and climate, (6) parental involvement, (7) community support, (8) teacher’s efficacy, (9) teachers’ commitment, (10) loyalty, and (11) satisfaction (Ostroff, Schmitt, 1993, Gehrke, 2010). At a time when some schools are failing to teach poor children, schools that have both high poverty and high performing levels provide hope for children to be able to function in a competitive society and all around the world (Carter, 2000, Gehrke, 2010). “The results of this study will contribute to the field of research in education by informing leaders and practitioners of successful strategies used with students who are facing economic hardship and poverty” (Einspar, 2010, p. 9).

This article shows the different approaches of studies conducted in attempts to overhaul the plights of poverty and achieve optimum academic achievement. Educators, statistician, and stake holders are continuously doing research using different statistical test such as ANOVA-Analysis of variance, Independent- t Test, Chi-Square, etc. to test for significance difference of educator’s perceptions, possibly test scores, etc. The Daniel C. Fritz perception model was to test the perception strengths of educators based on which characteristics of poverty had the most impact within that district.

“Teacher and administrator perceptions about poverty and their effect on student learning were analyzed so that educators could self-correct and thereby overcome educational barriers and reveal school-based factors that would increase self-efficacy, confidence, and motivation. This opened doors for the children to do well academically and on achievement tests” (Fritz, 2018, p.3; Fritz 2019, p. 5).

## 2.1 Literature Review

**The Definition of Poverty.** “Payne (2001) stated that there were two types of poverty: generational poverty and situational poverty. Generational poverty involved being in poverty for two generations or longer (Payne, 2001). Some parents grew up in poverty and were still in poverty when they had their own children. Generational poverty was very difficult to overcome because families from past generations had to struggle and work hard on jobs that required hard labor for low pay. Children grew up with single parents without the proper financial support.

In earlier generations, parents may have had to drop out of school to raise children or to work to support their families” (Fritz, 2018, p. 19).

“Many people did not necessarily grow up in poverty, but an incident or certain traumatic experience caused poverty within the family, such as a divorce. Situational poverty was caused by isolated incidents such as death, divorce, or long-term sickness. Some couples were financially stable, but when they separated, one person went through financial hardship. Situational poverty could affect the dynamics of the home emotionally and mentally. Sometimes children dropped out of school to help with the financial obligations within the home” (Boggess, 2008, cited in Fritz, 2018, p.19).

“Nord (1997) stated that in high poverty areas, there was no family support. Lack of income caused parents to work multiple jobs and to leave their children at home because they could not afford daycare (Boggess, 2008). The time away from home interfered with parents’ ability to provide educational stimulation, to improve their mental and cognitive ability to think critically, or solve problems “(Fritz, 2018, p.19).

### **2.1.2 Pertinent Related Literature on the Issues of Poverty and Out-of-School Factors**

“Blazer (2009) studied the effects of poverty on student achievement. In this study, students who lived in poverty had low performance on student achievement tests because they were affected by pollutants from the environment (such as poor water quality), especially with those who were living close to waste treatment plants, landfills, and other disposal areas. Lead and mold caused significant health problems. Children who lived in poverty were also affected by an untreated issue such as poor vision. Evan (2004) stated that poor vision was related to the low academic achievement (Fritz, 2018, p.21).

“Serious injuries occurred within the homes on unsafe stairs, open windows, lack of smoke detectors and a fire extinguisher, and unsecured cabinets. Injuries and illnesses caused a high volume of absenteeism from school. High absenteeism was associated with low of student achievements. Children could be unsupervised because some single parents must work to feed the household” (Fritz, 2018, p.21).

“Poverty caused all kinds of stress and affected the dynamics of family and the child’s student achievement. Jensen (2009) stated that stress was a psychological reaction to a situation or person that could negatively affect a person’s livelihood or current situation. Occasional stress was good for a person’s health because it stimulated the immune system and helped to develop resiliency. Chronic stress was the pressure that was constant over a period of time; acute stress resulted from severe stress caused by situations that caused trauma, abuse, and violence. Chronic and acute stress left serious emotional and psychological scars on a child and affected their everyday functions, including their academics and social interactions (Jensen, 2009). In some environments, many negative forces affected children and disturbed their focus on accomplishing high academic achievement (Jensen, 2009, cited in Fritz, 2018, p. 21-22).

“According to Jensen (2009), the biology of stress involved 30 to 50 trillion cells experiencing healthy and unhealthy growth. Studies have suggested that cells cannot grow and deteriorate at the same time; however, the body was in homeostatic balance in which our blood pressure, heart rate, blood sugar were in their ideal state. Stressors such as criticism, neglect, trauma, abuse, malnutrition, and exposure to toxins and drugs can disrupt the homeostatic balance, causing billions and trillions of cells to go into protection mode, which caused the brain to conserve resources and restricting blood flow to nonessential areas. This process caused children to go through an emotional rollercoaster impairing cognitive abilities” (Fritz, 2018, p. 22).

“Evans and English (2002) studied the effects of a stressor on low socioeconomic families; their research suggested that the body can adapt to short-term threats to homeostasis. Evans and English (2002) found that chronic and acute stressors were most prevalent with low and English found that chronic and acute stressors that were most prevalent with low socioeconomic families were overcrowded living situations, constant mobility, unsafe neighborhoods, substandard housing, domestic violence, separation and divorce, utility disconnection, and evictions. Pressures from these stressors impaired the students’ concentration and focus. These stressors were out-of-school factors which were other characteristics of poverty. Research suggested that the severity of these stressors caused students to do poorly in school. Even when adapting to the intrepid environment and being resilient still made it challenging for impoverished children to do well on achievement tests and with academics” (Barr & Parrett, 2007; Hayes, 2008, cited in Fritz, 2018, p. 22).

“Heier (2011) studied the relationship between standardized test scores of socioeconomically disadvantaged students in Title I and non-Title I schools in a North Texas school district. Title I schools had grants to help students who were disadvantaged; for example, schools that provided free lunch for eligible students. Heier (2011) examined The Texas Assessment of Knowledge and Skills (TAKS) Test which was guided by a constructivist theory and the examination of reading and math scores of 1639 fourth graders from the 2008 and 2009 school years” (Fritz, 2018, p. 23).

“Some educators believed that children who came from impoverished conditions could do well academically even under challenging situations. Heier (2011) analyzed the students at Title I campuses compared with non-Title I campuses. Heier performed a t-test for mathematics and reading, and the results were significantly different between the schools. However, comparing only the economically disadvantaged kids between Title I and non-Title I showed no significant differences between the mean scores in math or reading. The implications changed the perceptions of teachers and administrators in Title I schools and the academic challenges they faced. The possible perceptions before the study were that children who were of lower socioeconomic status were not going to do as well on the achievement test of reading and math, as well as the children, were of higher socioeconomic status” (Fritz, 2018, p. 23).

“Nutritional problems affected 13 million homes (approximately 10% of U.S. households) which had a direct effect on student achievement (Blazer, 2009). This affected academic progress of the children because it was difficult to function on an empty stomach. Food insecurities had been an issue within 13 million of these homes with children not knowing when they were having their next meal. High poverty school would feed their children enough calories during breakfast or lunch to give them enough energy to perform well with their academics (Barton & Coley, 2009; Berliner, 2009; Bruce, 2008; Rothstein, 2008, cited in Fritz, 2018, p.23).

“The Boren Project (2014) was a nonprofit organization that explored the issues of poverty in the United States and all over the world. It addressed five effects: (a) education, (b) child development, (c) crime, (d) low social mobility, and (e) extra social spending. With regard to education, only 14% of the variation in children’s performance could be attributed to school quality according to Donald Hirsch of the Roundtree Foundation (Boren Project, 2014). This meant that children’s background had a significant effect on their academic performance. Children who were of low-income status were less likely to do well in school. Child development was an issue because some children grew up in poverty learned poor health habits. Children who lived in constant poverty had poor cognitive development compared with other students of higher socioeconomic background. Children of low socioeconomic status did not always get the opportunity to attend social groups and activities, which affected their self-esteem. The crime was another issue with many children of low socioeconomic status. The Edinburg Study of Youth Transition and Crime found that children who lived in poverty often engaged in crime or violence by the age of 15” (Boren Project, 2014, cited in Fritz, 2018, p.23-24).

“Children who lived in households where the guardians or parents were unemployed were sometimes surrounded by crime and violence because some of these parents were engaged in crime to make ends meet for their families (Boren Project, 2014). Low social mobility limited children’s opportunity to experience positive stimuli outside their environment. There was less exposure to other cultures; some children were not able to go to museums or any educational events because they could not afford it (Boren Project, 2014). Extra social spending, occurred when the head of household was unable to reach his or her potential in society and unable to contribute to the economy. The government provided money that helped families of low income, which came from the taxpayers. Government assistance was prevalent in low socioeconomic communities” (Boren Project, 2014, cited in Fritz, 2018, p.24-25).

“The lack of educational activities and material was also considered an out-of-school factor that affected student achievement. Many parents could not afford the necessary textbooks or educational games that stimulated their children’s mind for critical thinking” (Blazer, 2009, cited in Fritz, 2018, p.24-25).

### **2.1.3 The McKinney-Vento Act**

“Homelessness was an issue in school districts all over the nation. Some children do not have residential stability because parents cannot afford to pay rent and often times were evicted from their homes. This affected the children because they did not have the proper shelter to live comfortably, eat, study or complete homework assignments” (Fritz, 2018, p.25).

“The McKinney-Vento Act was useful by communicating with Homeless State Coordinators to receive accurate data to find out adequate results about the homeless so that strategies were developed to help them to be successful in the classroom. It was very difficult to be successful in the classroom when there were issues of high mobility in one’s life” (Fritz, 2018, p.25).

“Personnel from The McKinney-Vento Act continued to try and understand the homeless and all of the problems that arose with them which was why researchers and educators had continuously collaborated to find out the best ways to help those students become successful on SOL test. However, success in the classroom in completing and passing assignments and other courses that received respectable grade point averages continued to be very challenging to students” (Einspar, 2010, cited in Fritz, 2018, p.25).

“Einspar (2010) also found out through research that many researchers did quantitative studies that addressed the needs and barriers that caused their lives to be intrepid while trying to receive an education. These studies were on homeless youths who resided in shelters (Baggerly, 2004; Bowman, Bundy & Peoples, 2000; Buckner, 1999; Buckner et al., 2001; Masten et al, 1993; Masten et al., 1997; McChesney, 1993; Nabors et al., 2004; Nunez, 2000; Nunez, 2001; Rafferty et al., 2004; Rubin, 1996; U.S. Conference of Mayors, 2006; Yon, 1993, cited in Fritz, 2018, p. 25).

“Einspar (2010) conducted a study on the components which facilitated academic success for homeless people. Several researchers suggested protective components which increased the resilience of those children who were homeless. Academic success was reachable and success on achievement would be a realistic goal to obtain” (Fritz, 2018, p. 26).

These protective components were developing meaningful relationships, a sense of belonging, a creating environment, positive community relations, and positive family connections (Bernard, 1993; Henderson & Milstein, 2003; Masten & Coatsworth, 1998; McMillan & Reed, 1994; Morrison, Brown, D’Incau, Larson and Furlong, 2006; Wang, Haertal, & Walberg, 1996; Werner & Smith, 2001, cited in Einspar, 2010, cited in Fritz, 2018, p. 26).

“Bernard (1993) stated, “those components had been responsible for the success in programs that promoted the development of these factors in students who faced the difficulties and challenges of doing well in school” (Einspar, 2010, p. 5). Students who overcame adversity when going through high impoverish situations were resilient and survived the most challenging time (Bernard, 1998; Brown, Caston, Bernard, 2001; Henderson & Milstein, 2003; Masten & Coatsworth, 1998; McMillan & Reed, 1993; McMillan & Reed, 1994; Morrison, Brown, D’Incau, O’Farrell & Furlong, 2006; Wang, Haertel & Walberg, 1996; Wang, Haertal & Walberg, 1998, cited in Fritz, 2018, p.26).

“Luther, Cicchetti & Becker (2000) suggested that resilience was a process by which a person was able to adapt to challenging situations, survive and conquer tasks successfully. Students constantly achieved this daily by going to school with health problems, hunger, and residential instability and still performed well in school (Einspar, 2010). The more educators attacked the issues and the effects of poverty on the children, the better chance children had of being more resilient and successful in the classroom. The components according to Einspar’s research, brought about this protective mechanism of components that led to the success of homeless impoverished children” (Fritz, 2018, p. 27).

“Components one and two, developing meaningful relationships and creating a “sense of belonging (Einspar, 2010)”, opened up some of the school-based factors, one being intervention (Barr & Parrett 2007 & Hayes, 2008). Henderson & Milstein (2001) stated children who established relationships with counselors, teachers, administrators, and peers had an increase in their confidence and self-esteem. The type of support and mentorship from the adults increased high expectations and contributed to academic success (Einspar, 2010). When students bonded with their teachers and administrators, their performance increased and they felt a sense of belonging to an elite or special group which increased their self-esteem” (Fritz, 2018, p.27).

“Einspar’s findings suggested that counselors contributed to socio-emotional support to deal with outside influences and established rapport with the student which increased academic achievement (McMillan & Reed, 1993). Social workers established rapport with students through counseling and used a strength base-but friendly and caring approach to the homeless child (DeCivita, 2006; Jozefowicz-Simbeni & Israel, 2006; Quint, 1994, cited in Fritz, 2018, p.27).

“School counselors and educators focused on the strength-approach to learning for the children had a positive impact on achievement scores (Jozefowicz-Simbeni & Israel, 2006). DeCivita (2006) stated, that focusing on student strengths, and constant encouragement had a positive impact on achievement scores” (Einspar, 2010, cited Fritz 2018).

“Bernard (1993) & Rutter (1987) suggested meaningful relationships which led to the academic success of students because of the strong mentorship and rapport. “It also increased internal locus control as well as self-efficacy (Einspar, 2010, p. 36).” McMillan & Reed (1994) & Rutter (1987) stated students with high internal locus of control and self-efficacy were very self-motivated and very capable. These students were motivated, goal oriented and usually academically successful” (Einspar, 2010, cited in Fritz, 2018, p. 28).

“The McKinney-Vento programs allowed volunteers, teachers and community leaders to develop programs that helped impoverished homeless children. Programs that were developed, team sports and other school organization helped students to have a sense of belonging. After-school programs (buddy programs), tutoring programs, and other outside community programs created a caring environment which kept students engaged, motivated and interested in being successful” (Fritz, 2018, p.28).

“Component number three, creating a caring environment, was a success because the community got involved including parents in helping the homeless and those children who were impoverished and academically disadvantaged. Schools in Los Angeles and Southern California had implemented Buddy Programs that reduced student mobility, increased attendance in the schools and academic success” (Rumberger, 2003, cited in Fritz, 2018, p. 28).

“The Buddy Programs had volunteers to assist in tutoring core subjects like math, science, English, reading, and writing. The programs served bilingual students as well (Einspar, 2010). These components had several combinations of school-based factors working on behalf of the students. These factors included adults setting high expectations, community and parental involvement, spending time with students who had challenges in those courses that had standardized test (math, reading, and writing), intervention, effective leadership, etc. (Marzano, 2003, Barr & Parrett, and Hayes, 2008, cited in Fritz, 2018, p. 28).

“These programs provided a place for students to do homework and receive textbooks, notebook, pens, pencils and other school supplies. Programs were allied to the school districts because they provided other resources ready and available to teachers and families to assist, help children who were homeless and at a disadvantage (Robertson, 1998; Swick, 1996). Services that were accessible for student created a safe and caring environment. A program that was created in one of the California school districts was, The *Empowerment Zone*, which was designed to help students with mental health issues who were living in shelters and low-income housing. Nabor et, al. (2004) examined students who were evaluated in this program to measure the effectiveness in terms of increasing teacher and student awareness of available resources” (Einspar, 2010, cited in Fritz, 2018, p.28).

“The research was to determine if (after data was collected); the results showed if students became more aware of health and mental health resources. Students used these resources which was helpful in the classroom. The combination of students using resources, the intervention of parents, community volunteers and educators from the school district, policies and guideline set by organizers of the program made the empowerment zone a huge success. Test scores increased, homeless youths received great attention, mentorship, and were successful academically” (Nabor et al., 2004, cited in Einspar, 2010, cited in Fritz, 2018, p. 28).

“Component four was developing positive family relationships. Parent involvement was part of the protection factor. It was important to have parent involvement implemented on any strategy or school improvement plan” (Herrell, 2010, cited in Fritz, 2018, p. 28-29).

“Masten & Coatsworth (1998) examined the effective strategies associated with resilience in implementing strategies to provide resources on how to improve parent-child relationships (Einspar, 2010). Developing great rapport with a parent was a crucial strategy for achieving success academically with homeless and impoverished students (Robertson, 1998). Parental involvement had been the beacon pathway of success for children in failing districts and district with children who suffered from poverty” (Fritz, 2018, p. 29).

“With the proper training, staff development, degrees, and certification offered to parents; parents got involved by becoming substitute teachers, teacher assistants, even highly qualified teachers and administrators (Harris, 2005). Parents became coaches in sports programs at the school; some parents were already involved with funds raisers and organization that raised funds called the booster club. The McKinney Vento-Programs allowed involvement of parents and volunteers to help the children who were homeless and increased student achievement” (Fritz, 2018, cited in Fritz, 2018, p. 29).

#### **2.1.4 Effects of Poverty on Student Achievement**

“Several researchers had studied poverty and its relationship to student achievement; poverty indicators had been consistently blamed for low levels of student achievement (Bourke, 1998; Fisher & Adler, 1999; Herbst, 2009; Schellenberg, 1998). Fisher and Adler (1999) noted that poverty had been a target topic for many years in the discussion of the improvement of student achievement. For example, within the impoverished environment may be a higher percentage of unemployment—families struggled to make ends meet to feed and take care of the family’s basic needs. In some rural and urban communities, high poverty yielded crimes such as theft, robbery, or larceny” (Fritz, 2018, pp. 30-32).

“Low-income fourth-grade students received lower 2005 National Assessment of Education Progress Test (NAEP) math scores than the middle-income students, regardless of the poverty concentration of the school (Berliner, 2009). Barley and Coley (2009) documented a gap in the NAEP test scores between students from different socioeconomic backgrounds. In 2007, the NAEP showed that low-income students (student with free and reduced lunch) scored 25 to 28 points lower than their higher-income schoolmates (those students that were not eligible for free or reduced lunch). Smith, Brook-Gunn, and Klebanov (1997) used data from the children of the National Longitudinal Survey of Youth and the Infant Health and Development program to compare families that were affected by impoverished conditions. The poorest children scored 6 to 13 points lower on the various IQ test, verbal ability, achievement, and other standardized tests. The authors noted that the test results meant the difference between placing the children in special education settings or traditional settings (Barley & Coley, 2009, cited in Fritz, 2018, pp. 31-32).

“Banks (2001) investigated End of Grade Scores (EOG) for grades 3 to 8 in the Wake County School System in North Carolina. The data compiled on the impact of school poverty helped support the policies of the Wake County Public School System to place 40% of the children of low socioeconomic status in a school. The higher poverty rate was associated with lower scores. Bank’s findings suggested that the variations of performances across the entire system affected many factors beyond school poverty that were affecting children’s performances and student achievement. Some of Bank’s finding suggested that the districts had created some school campuses in which few had a high concentration of poverty” (Fritz, 2018, p. 33).

“The analysis of EOG scores showed that a small concentration of poverty at a school was unlikely to have any effect on students’ performance; however, there had been some statistical significance in those test scores based on children’s situation within the home. Larger changes in the concentration of poverty produced changes in academic student growth and had a statistical and educational significance. Individuals that came from low-income families had a statistically high dropout rate, high-grade retention, high absenteeism, and many other factors” (Fritz, 2018, p. 32).

“Poverty had been related to childhood injuries in the home. Low-income families lived in places that had fewer smoke detectors and fire extinguishers, more unsecured stairs, and more unlocked cabinets and closets (Banks, 2001). Children in low-income areas were not always supervised, especially when it was time for homework (Banks, 2001). Single parent families had to leave children unattended, trusting that they would be responsible for minding siblings, did chores around the home, and completed schoolwork. Outside responsibilities caused some students to neglect school altogether, causing a drop in student achievement in many districts. Children got into bad situations, made wrong choices and bad decisions, affecting their student achievement” (Banks, 2001, cited in Fritz, 2018, p. 33).

“Smith, Brooks-Gunn & Klebanov (1997) did extensive studies on the impact of poverty on student achievement. Their finding showed that low family income had reduced IQ scores in some settings throughout the United States. Families with low income and living in highly impoverished conditions showed children as young as age 5 who’s IQ had been somewhat affected” (Duncan, Brooks-Gunn, & Klebanov, 1994, cited in Fritz, 2018, p.33).

“Bourke (1998) emphasized that students with free and reduced lunch struggled and had lower achievement scores than other students especially in reading (Herbst, 2009). “The early average reading performance in schools tended to decrease as the number of students applied and got accepted for free and reduced lunch” (Herbst, 2009, p. 11, cited in Fritz, 2018, p. 33).

“Bourke also mentioned in his study that poverty measured was closely related to the variance in the reading score than the ethnicity variable; when the school variable was implemented into the regression model, there was little or no effect on the student ethnicity variable” (Herbst, 2009, p. 11, cited in Fritz, 2018, p. 33).

“Duncan and Brookes-Gunn (2000) emphasized six pathways in which income influenced childhood development: a) stress from trying to maintain financial stability, b) access to resources; c) food and other common needs, such as utilities; d) lack of access to proper healthcare; e) lack of access to proper shelter; and f) inappropriate child rearing. Children needed cognitive stimulation and a clean positive home environment. Children needed exposure to a good community and taught good social skills so that they would be able to get along with peers and others within the community. Good child-parent relations and interactions were crucial, just as appropriate structure and proper respect within the household so that children were functional citizens within the community” (D’Aoust, 2008, cited in Fritz, 2018, p. 33).

“Drazen (1992) studied student achievement in relation to how low-income families living in low-income communities achieved student success despite impoverished situations. The research used three long-term studies of US high school students which measured achievement and socioeconomic standing were meant to be comparable among different cohorts of students: a) The High School Class of 1972 had a longitudinal study completed on approximately 19,000 high school students; b) the High School and Beyond Study (sophomore and senior classes of 1980 -approximately 58,000 students); and c) the National Education Longitudinal Survey of 1988 (approximately 25,000 students). Drazen (1992) uncovered what he referred to as “potent factors of student achievement.” The potent factors that resulted in positive outcomes for students’ reading levels in 1972 were parents’ level of education, time spent on homework, non-minority racial status, and parents’ income (Drazen, 1992). In 1988, the potent factors were parents’ education level, time spent on homework, non-minority racial status, parents’ income, and female sex (Drazen, 1992). It used to be implied that women studied poetry, English, and concentrated on the nonscientific fields. For mathematics achievement, the potent factors for success were parents’ level of education, non-minority racial status, parents’ income, time spent on homework, and male sex” (Fritz, 2018, p. 34).

“It used to be implied that more men would be interested in the field of math and science. In 1988, the results for achievement in mathematics were the same as 1972; the only thing that seemed different during the time of analysis was sex (Drazen, 1992). These were only topics that were implied and opinionated because women had made breakthroughs in science and in mathematics and men had been great writers. This was due to parent involvement with the collaboration of educators taking the time to affect children of both sexes”.

“Educators and administrators emphasized that achievement tests did not always recognize the abilities of students from impoverished backgrounds. Many students struggled because of impoverished situations and school districts were trying to set up programs to counter the barriers of poverty and helped the children that became more successful on achievement tests (Herrell, 2011). The Missouri School Improvement Program (2000) indicated that rural educators throughout the United States grappled with the challenges of school improvement focused solely on high-stakes testing results, especially for children in high impoverished districts in the state. Student achievement measured by such testing programs had far-reaching ramifications, resulting in extensive research that identified factors that contributed to student success. Because of these mandates, Missouri rural principals were faced with the threat of no accreditation if Missouri Assessment Program (MAP) scores did not meet the threshold (Horst & Martin, 2007). The characteristics of poverty had to be identified so that leaders could address these issues and develop school-based factors that would help increase student success” (Fritz, 2018, p.34).

“Citizens for Missouri Children (2005) reported that challenges to rural educators were increasing. Children from impoverished homes had unique educational needs. Many of these students had severe health problems due to growing up in poverty. According to Horst and Martin (2007), parents did not make enough income to feed the household; let alone, provide proper healthcare.



Some children lived in households with parents who were on welfare or other governmental assistance (Horst & Martin, 2007). Family income and finances were just a few of the characteristics of impoverished situations that affected children in school” (Horst & Martin, 2007, cited in Fritz 2018, p.34).

“Weber (2007) stated that education was a strategy for reducing poverty and producing more opportunities for citizens in the community. Education was an important variable for being self-sufficient, having high self-esteem, and improving motivation and self-efficacy. According to Weber, a person who was motivated and had high self-esteem would have an overall better sense of well-being, which led to a better-educated workforce with higher incomes” (Fritz, 2018, p.34).

“Levels of education and increases in attainment both explained spatial variation in poverty reduction. Weber concluded that education had a direct effect on poverty reduction and more education was a path for coming out of poverty because more educated people were less likely to be poor. (Khan, 2015, p. 132, Fritz, 2018, p.34)

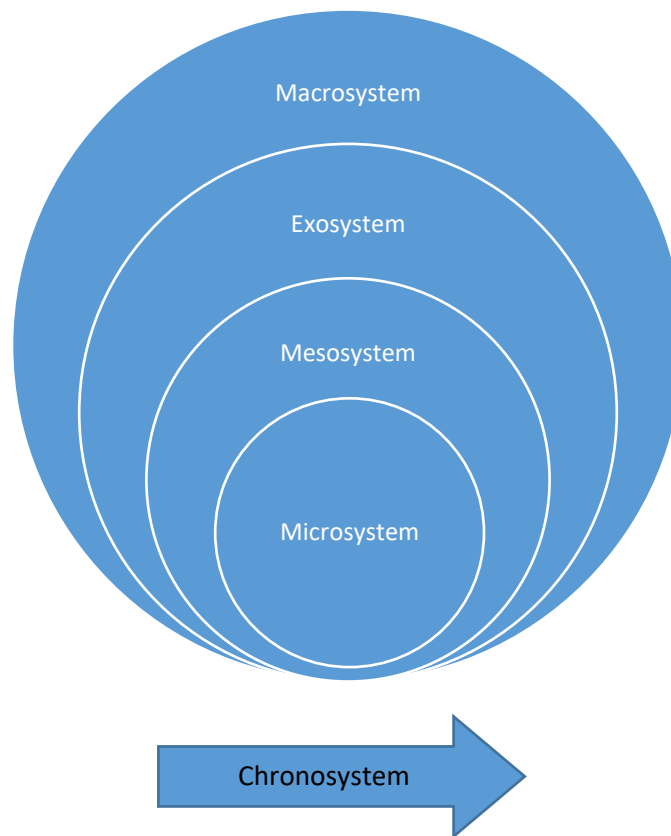
### **2.1.5 Pertinent Related Literature that Examines the Surrounding Environments and its Effect on Student Achievement According to the Bronfenbrenner’s Ecological Model**

“Bronfenbrenner (1977) developed the Ecological Model that described a child’s cognitive, social, emotional, and physical development. Bronfenbrenner contended that children who were developed in a complex system of relationships, were influenced by multiple levels of the surrounding environment” (Fritz, 2018, p. 36)

“This system determined the success or failure of a student in education. If the child was surrounded by good role models and other outside influences, the Bronfenbrenner’s Ecological system could be a great resource. Bronfenbrenner used the ecological system to observe and analyze poverty and its effects on student achievement through a nested system approach. The system also exposed the role of parents and their influence through the three environments of family/home environment, neighborhood, and school. The Ecological Model consisted of the mesosystem, microsystem, mesosystem, exosystem, and chronosystem” (Figure 2; Bronfenbrenner, 1977, cited in Fritz, 2018, p. 36).

“Bronfenbrenner’s (1979) ecological model suggested that childhood development occurred within the interactive system and was organized with many child and environmental influences, while many other environments and mechanisms existed”.

“The innermost area of the Bronfenbrenner model was the microsystem, which dealt with interpersonal relationships and direct interactions with the surroundings (family, school, peer groups, and workplace). The mesosystem dealt with the home, school, and the workplace environment (Bronfenbrenner, 1994). The microsystem was a subset of the mesosystem. This part of the system described the relationships among family members and the school environment. This system was important because a child’s self-esteem could be built up or broken down within this surrounding. Often family members played a role in the child’s academic success or failures”.



*Figure 2.*

**Bronfenbrenner's bioecological model** ( Bronfenbrenner, 1997, cited in Fritz, 2018, p. 37)

“The microsystem exposed the child to family members’ impoverished families that affected the child both physically and mentally”.

“On the positive side, the interpersonal relationships helped the child’s self-esteem and extrinsically motivated the child to do well academically. As far as the negative influences, the child could be exposed to outside negative forces for particular persons from peer groups, school, and even family members. It was possible that they were exposed to inappropriate things such as drugs, physical and sexual abuse, and violence. The child should be mentored and monitored”.

“The exosystem dealt with the parent's influence on the child and the child’s relationship with the peer group. Some peer groups teased or bullied impoverished children. This negatively affected self-esteem and motivation for academic student achievement. Conversely, peers encouraged each other to do well in school, thus giving that child confidence, which enhanced achievement test scores. Acceptance around friends and outside people within the community also enhanced children’s achievement test scores. Mentors stressed the importance of student achievement within their communities. The macrosystem consisted of the surrounding culture and lifestyle within the environment. Sometimes children were consumed by the culture of the environment. If this environment was negative (violence, low achievement, poverty), it had a negative effect on children. However, not everyone was a product of the environment they grew up in. Role models within the community can be a positive influence on children who lived in poverty”.

The Chronosystems consisted of change and development over a period of time. The child developed and matured within the environment. The chronosystem also represented the impoverished child improving and growing academically throughout each grade and striving for academic success (Bronfenbrenner, 1977, 1979, 1994, cited in Fritz, 2018, p. 37).

“The National Institute of Mental Health (2003) found that 21% of the children had some form of mental health issue. Children faced with many challenges, such as poverty, impoverished environment, economic instability, family dysfunction, and increased threats of violence were even more susceptible to mental health issues.

The Bronfenbrenner model supported parental involvement based on the nested system approach, which was an excellent example of a collaborative strategy to conquer the barriers of poverty and increase student achievement. Part of the educators' strategies was to involve parents and communities in interventions based on the nested system approach of Bronfenbrenner" (Fritz, 2018, p. 37).

#### 2.1.6 Pertinent Related Literature on Teacher Beliefs and Perceptions

"Students who were considered at risk, were minorities, or of socioeconomic status that could be programmed for failure because some teachers had low expectations for these students, thus causing beliefs or perceptions to be negative (Gault & Murphy, 1987; Jacoby, 2001). Teacher's perceptions motivated, influenced, encouraged and changed the lives of children within their early academic experiences. Researchers such as Lacy (2006), Hoy and Hoy (2006), Armour (1997), Allinder (1994), and Brophy (1982) had realized the importance of teacher perception as an important factor to reaching the optimum student academic achievement. What teachers thought and how they perceived students could build lives that made make "groundbreaking" discoveries in science, mathematics, and other disciplines (Deskins, 2010, cited in Fritz, 2018, p. 39).

"Educational belief involved the person's individual experience and awareness within his or her surrounding environment channeled through different modes of thoughts and convictions about a subject or situation (Deskins, 2010). Teacher beliefs were unpredictable and unexpected; teachers' identities were characterized by their attitudes, beliefs, emotions, and the effect of ethical and moral convictions throughout their career (Deskins, 2010). Social, cultural, and environmental experiences affected the way teachers thought and made decisions. These could, in turn, affect the people around them, including the students who were trying to become successful" (Deskins, 2010, cited in Fritz, 2018, p. 39).

"Teachers' beliefs revealed how they thought it was necessarily right or wrong. However, a teacher's belief or perception can limit a student's academic development. Deal and Peterson (1999) defined beliefs as an interpretation of the world and how it influenced everyone's thought processes. Beliefs were based on experienced practical and appropriate cognitive views on race, ethnicity, concern, truth, and reality; however, these subconsciously were held within the person's thought process" (Deal & Peterson, 1999, cited in Fritz, p.39). According to Raffini (1993), students sometimes internalized the teachers' beliefs, which caused a rise or fall in the student's motivation or self-esteem, thus affecting his or her student achievement. This internalization was also unpredictable, and teachers' expectations caused differing results as well" (Raffini, 1993, cited in Fritz, 2018, p.40)

"Clark (2004) suggested that teachers provided nurturing within the school environment. Culture as a relationship enhanced teacher accountability and student achievement (Clark, 2004). Teachers' beliefs, professional identities, and meaning constructions had an unassailable effect on teachers' relationship with schools and students" (Poole, 1996; Van den Berg, 2002, cited in Fritz, 2018, p. 40).

"Cotton (1989) reported how students responded to teacher prompts limited the students' academic development depending on the teacher's perceptions and expectations. If a child was of a particular socioeconomic level or possibly from a certain minority group, teachers mistakenly perceived students to be at certain academic potential. This affected the expectation of teachers towards the students" (cited in Fritz, 2018, p. 40).

"Cotton (1989) examined the Rosenthal/Jacobson Study (also known as the Pygmalion Study), which purposefully gave teachers a false notion about students from grades one through six potential learning abilities of a San Francisco elementary school. Teachers were briefed on some of the students who were randomly selected have been tested and were in the tract of rapid intellectual growth. At the end of the experiment, some of the students involved in the experiment from grades one and two tested superior to those students with similar abilities and without any intervention. The results of the researchers found that boosted expectations of the teachers towards those randomly selected students along with passion and enthusiasm caused those students to experience accelerated intellectual growth" (Cotton, 1989). "Further reports included 46 key documents, which showed evidence of success with expectations and student outcomes. "There was success with achievement and IQ scores and an increase of student morale and positive attitudes. Every analysis that was retrieved from these reports showed that high expectations of the students were one of the main ingredients of high performing schools along with strong leadership" (Cotton, 1989, cited in Fritz, 2018, p. 40).

“Kosslyn and Rosenberg (2005) found that when challenging students lacked motivation were shown care and concern and when teachers believed in those students, they became academically successful. This goes back to the Gallup TPI, which assessed the ability of educators to connect with the children from all walks of life” (Metzger & Wu, 2008). “Children needed a nurturing environment (Clark, 2004), children needed to have a healthy rapport with their teachers (Metzger & Wu, 2008), and teachers had to be passionate and motivated (Kosslyn & Rosenberg, 2005, cited in Fritz, 2018, p. 40) enough to reach their students”.

“Gibson and Dembo (1984) suggested that highly effective teachers used teaching strategies to reach students who may be at risk or struggling with reading, writing, or mathematics. These teachers believed that children did well with a support system that encouraged them and believed in them. Children wanted to do well, and they wanted to please their teachers. The more teachers believed in their students and tried to motivate them, the more the students tried to please the teacher and showed more effort” (Deskins, 2010, cited in Fritz, 2018, p. 40).

“Jenik (2005) observed teacher’s perceptions of “slow learners.” A mapping approach to this strategy was used to understand slow learners and to keep these students motivated and prepared for achievement tests. First, the purpose was to try to understand the perceptions of teachers who worked with slow learners and to attempt to encourage those teachers to create intervention plans that helped those students to become successful” (Jeniks, 2005). “The qualitative mapping procedures were used to analyze descriptive studies that were underdeveloped or had data that was too small for reliability and validity” (Deskins, 2010). “The data from the experiment encompassed 10 teachers’ beliefs and perceptions concerning slow learning. The results were separated into two categories and were sorted and ranked respectively”. Jenik’s (2005) conclusion was that teachers were treating the slow students differently from those who were average to above average. “The findings of Jenik were questionable because of the small data from one school district; however, the size of the data and the study were consistent with other researchers’ analyses relating to teacher expectations; the recommendation for this study was that teachers should use intervention strategies for the slower learners” (Fritz, 2018, p. 41).

“Anderson-Clark, Green, and Henley (2008) completed a study using 130 teachers at an elementary school in Texas. Teachers were given vignettes and were asked to judge the students’ behavior. The teachers were given an opportunity to rate the students through a survey that used a mixture of names that were African-American or white sounding called the Achievement Motivation Rating Scale (AMRS). The instrument used a 5-point Likert scale with 15 items”.

“The study revealed stereotypes influenced by name and ethnicity related to student achievement (Anderson-Clark et al., 2008). Anderson-Clark et al. (2008) also stated that names had a lot of influence because they linked to people’s accomplishments, heritage, legacy, religion, and culture. The study was significant; however, the race was not a factor as much as the name associated with the ethnic groups (Anderson-Clark et al., 2008). The study also suggested that teachers associate children’s behavior with ethnic groups according to the stereotypes of these group, heritage, culture, characteristics, and student achievement” (Anderson-Clark et al., 2008, cited in Fritz, 2018, p.42). “The findings were that teachers rated African-American sounding names lower than white-sounding names. This implies that teacher’s perceptions of students were being judged based on their ethnic first name”.

“Anderson-Clark et al. (2008) stated that students of high socioeconomic status were treated nicer and were rated higher than their IQ scores; they were perceived as mature, independent students. The students of lower socioeconomic status were judged poorly and rated lower than their IQ scores; they were assumed to be immature and somewhat irresponsible (Anderson-Clark et al., 2008, cited in Fritz, 2018, p. 42).

“Cawelti (1999) looked at schools that had substantial gains over a 3- to 5-year period. These schools focused on standards and consistently improving results; working on weaknesses and maintaining strength; encouraging teamwork and accountability among the faculty; supporting strong administrative leaders; encouraging teachers to be dedicated and committed to the vision of their school; and continuing to improve curriculum and instructions (Grass, 2004). The benchmarks school had implemented a school improvement plan which involved high expectations. Educators within these districts set the bar high for students and developed after-school programs in science and math. Some of the math and science modules that were under the development of some of the curriculum specialist included application problems, which challenged students to use critical thinking skills to find solutions. Strong leadership was another element in which leaders were able to place the correct strategies toward those weaknesses. The weaknesses were strengthened, scores were improved, and success continued to flourish” (Grass, 2004, cited in Fritz, 2018, p. 56).

“Lee and Loeb (2000) studied more than 23,000 sixth- and eighth-grade students in Chicago elementary schools. During the study, Lee and Loeb realized that smaller schools (enrollment of fewer than 400 students) had higher achievement score than larger schools. The data indicated a strong negative correlation between medium-sized schools with enrollments of 400–750 students and academic achievement (Lee & Loeb, 2000). Further, they found a small negative correlation between large schools with an enrollment of more than 750 students and academic achievement. Lee and Loeb maintained that school size had both direct effects on academic achievements, like those detailed here, as well as indirect effects on academic achievement. Some of the indirect effects Lee and Loeb (2000) identified included that teachers in small schools felt more connected and more responsible for student academic achievement; teachers were more likely to know students better than their larger school peers” (Fritz, 2018, pp. 56-57).

“Coladarci’ s (2006) worked with achievement data from 216 middle schools in Maine further bolstered the contention that smaller schools produced higher academic achievement than larger schools, particularly for students living in poverty. Specifically, through an intense examination of the student achievement data in Maine, Coladarci concluded that the advantage in academic achievement that smaller schools produce is a legitimate factor and not a statistical anomaly. Coladarci’s findings suggested that even though poverty was a challenging issue for the district, students adapted and overcame the intrepid problems of poverty, because of the smaller-sized classrooms and smaller schools. Smaller schools are more manageable” (Coladarci, 2006, cited in Fritz, 2018, pp. 56-57).

Lee and Leob (2000) suggested that smaller rural districts performed very well on achievement tests because of parent involvement and leadership. Some of the teachers and leaders of these schools lived in the same neighborhoods as the families with children attending these schools (Lee & Loeb, 2000). Parents were involved with their child’s education, leadership was fostered within the district, and smaller school districts were easier to manage (Lee & Loeb, 2000). School-based factors, such as high expectation, parent involvement, and strong leadership, were easier to implement in a small district (Lee & Loeb, 2000, cited in Fritz, 2018, pp. 56-57).

“Cathy Townsend (2010) studied the impact of attendance and discipline on student achievement. This work led to her developing the Positive Behavior Intervention and Support (PBIS) model. School advisors and administrators used strategies from her model to improve discipline, attendance, and student achievement. The PBIS model had been used to improve discipline problems and attendance problems throughout grades (3–12).”

“Townsend (2010) found the PBIS model to be a valuable tool for student intervention to track and micro-manage students’ activities and to encourage them to make the right decisions. The programs included tutoring, teacher, student and parent conferences, alternative behavior choices, character education, goal setting, in-class, support, classes on making better choices (Townsend, 2010). An advisor played a role in the child’s life every step of the way and had a profound impact on the success of student achievement in many cases (Townsend, 2010, cited in Fritz, 2018, p. 58).

“Vega and Travis (2011) investigated the effectiveness of reformed mathematics curricula, analyzing by ethnicity, socioeconomic status, and limited English proficiency. Many students, not just at-risk students or students in poverty, struggled with English (Buchanan & Helman, 1993). Vega and Travis studied teaching strategies that accommodated all learning styles and helped teachers explore other avenues of reaching students and helping them to understand concepts using these different teaching strategies that helped improve scores” (Fritz, 2018, pp. 60-62).

“According to Vega and Travis (2011) Traditional curricula represented the “old school” way of distributing information, which was didactic and lecture based. Teachers used the traditional way of teaching, still using lecture with visual aids such as an overhead projector that showed graphical presentations by drawing and writing on the chalkboard or whiteboards. Reform curricula used graphical, numerical learning exercises and worksheets and incorporated technology with handheld response systems that allowed students to answer teacher’s questions. Height adjustable classroom desks encouraged active classrooms for more innovative classroom instruction and participation in classroom activities. In reform curriculum, solutions to mathematics problems could be through advanced calculators that interacted with the teacher’s calculator and computer software” (Fritz, 2018, pp. 60-62).

“Vega and Travis (2011) reformed curricula added more visualize aids for English and other school subjects, as well.

Some schools completely did away with paper and used computer transmission emailing for assignments and projects as well as e-books. Reform curricula emphasized hands-on, cooperative learning and collaborated activities. Reform teaching used technology and blended instruction techniques with algebra, geometry, and discrete mathematics as well” (Fritz, 2018, pp. 60-62).

“Vega and Travis (2011) studied ninth and eleven graders with limited English proficiency who were economically disadvantaged. The study used both the traditional curricula and the reform curricula. In 2003–2004, the ninth-grade limited proficient student, the ninth-grade economically disadvantaged students, and the eleventh-grade African American students were in the reformed study group; they outscored the students who were in the traditional study group (Vega & Travis, 2011). When the study concluded, there was not enough evidence showing the students taught from the reform mathematics curriculum had a better understanding of mathematics measured by the state assessment instrument (Vega & Travis, 2011). The data suggested a possible advantage to the some of the population traditionally taught; however, proving this would require more statistical research (Vega & Travis, 2011). Vega and Travis (2011) suggested that students taught with the reform curricula who did not score any higher than students taught by the traditional curricula did improve in their attitudes toward math, showing more confidence and becoming successful according to different studies” (Vega & Travis, 2011, cited in Fritz, 2018, pp.60-62).

“Separating the data on students by ethnicity, socioeconomic status, and limited English proficiency assisted in evaluating whether reform curricula made a difference in reaching all students. In addition, the High Stakes Assessment (referred to as High Stakes Testing) was used as a measure of success because of the student’s higher-order of thinking and skill level and multistep nature of the questions (Vega & Travis, 2011). High-stakes assessments were used to make certain decisions about students, educators, and districts to ensure accountability and to make sure student was attending effective schools” (Fritz, 2018, pp. 60-62).

“With traditional and reform curriculums, teachers and administrators collaborated and discussed different teaching strategies that improved scores (Vega & Travis, 2011). The curriculums were also developed to make teaching more innovative and teachers and educators had to be placed in these positions to teach and had some rapport with students” (Metzger & Wu, 2008; Simmons, 1976, cited in Fritz, 2018, pp. 60-62).

“They understood the importance of each of the student’s learning styles and implemented these into their strategies for success. Teachers’ beliefs and perceptions allowed them to realize the importance of collaboration and leadership while targeting those students challenged in mathematics. Vega & Travis (2011) realized in their study that teachers and administrators managed and monitored the curricula and set high expectations for students. These school-based factors, when applied, countered the issues of poverty and increased student success” (Barr & Parrett, 2007; Hayes, 2008, cited in Fritz 2018, pp. 60-62).

### **2.1.7 Pertinent Literature on factors that target success**

“Follman (2011) studied teachers’ perceptions of poverty and its effects on elementary school students’ academic performance in rural South Dakota. He analyzed poverty associated with low achievement and discussed school-based practices about how to increase student achievement for students affected by poverty. Follman (2011) found that teachers had to be very creative in understanding how to reach students from different poverty levels so that students could reach acceptable passing standards. Follman made some interesting analogies during his research about the negative effects on learning and the causes of low academic achievement. One example was students suffering from health issues with no way to pay for medical or dental care. It was very difficult to learn when you are in pain from an ailment and cannot get relief” (Follman, 2011). Other factors were family circumstances such as single parent struggles, physical abuse, neglect, poor living conditions, lack of cognitive stimulation, lack of communication, poor housing conditions, access to daycare or child care services, living in poor unsafe neighborhood, and watching television for extended periods of time with no educational or cognitive stimulation” (Follman, 2011, cited in Fritz, 2018, p. 46). Follman (2011) reported findings that caused low achievement scores, such as unqualified teachers, low per-pupil funding, the high mobility of students, poor attendance because of homelessness, terrible school conditions and climate, low expectations, ineffective classroom practices, lack of parental involvement, low self-esteem, and lack of motivation and self-determination (Fritz, 2018, p. 46)

Lacy (2006) researched African American students of low socioeconomic status who were doing well in the classroom and found six themes related to their academic success: a) relationships that were appropriate and professional, b) honesty, c) trust, d) shared interest such as sports and other hobbies, e) open communication for those students who have teachers as mentors, and f) emotional salience. Lacy wanted to determine how effective the six themes were and how they impacted student success. Lacy's findings showed African American students that feel comfortable around elders, such as teachers, mentors, or counselors, tended to do well and performed to the best of their ability. They were performing well, not only to please themselves, but also to please their teachers or those people evaluating them. The students did not want to disappoint a teacher or person who had been mentoring them (Fritz, 2018, p.47).

“Marzano (2003) suggested 11 factors that influenced student achievement. These 11 factors were put into three categories: teacher-level factors, school-level factors, and student-level factors. The factors were listed as follows: Teacher-level factors:

- Effective curriculum
- Goals and feedback
- Parent and community involvement
- Safe and peaceful environment
- Collegiately and professionalism

School-level factors:

- Instructional strategies
- Classroom management
- Classroom curriculum design

Student-level factors:

- Good home atmosphere
- Learned intelligence and background knowledge
- Motivation

Shannon and Bylsma (2007) showed nine characteristics found mostly in high-poverty, high-performing schools:

- Effective school research
- Shared focus
- Collaboration
- Curriculum and team assessment/aligned with state standards
- High standards and expectations for all students
- Monitoring learning and teaching
- Professional development
- Supporting learning environment
- Parent involvement

These were the factors that built high performance into achievement scores. A supportive staff, supportive parents, administrators, and teachers who were passionate about their craft could help children overcome some of the issues of poverty that affect students trying to reach academic success” (Follman, 2011, p. 47).

“Barr and Parrett’s (2007) research had focused on high performing high poverty schools which showed the characteristics of great leadership, motivating teachers with setting high expectations. Their findings identified strategies and practices which were setting high expectations for poor and culturally diverse students; encouraging parent involvement; promoting leadership; targeting low performing students in low-performing schools, particularly in math and reading; and aligning, managing, and monitoring the curriculum. Barr and Parrett (2007) found that educators should always create cultural data and assessment literacy; build and sustain instructional capacity; and reorganize time, space, and transition. These findings produced student-based practices which helped students to maintain and achieve passing scores on an achievement test(Fritz, 2018, p. 48).

Barr and Parrett (2007) also found a significant decrease in achievement for poor children during the summer months because there was not enough nutrition, recreation, academic remediation, or enrichment for the children.

Summer specialty programs, camps, and academic remediation programs were later developed to help students maintain academic knowledge and stimulate growth (Follman, 2011). Federal funding, such as Title I and grants, was used to pay teachers and counselors for extra time during the summer months.

“The barriers of poverty removed children’s focus because there were extreme issues that need to be addressed so they could learn and become successful (Berliner, 2009). Walstrom and Louis (2008) realized that relationships between school leaders and teachers helped with comradery, teamwork, and collaboration. Trust between colleagues was a powerful tool for success because the faculty community could rely on each other to make tough decisions (Walstrom & Louis, 2008). School-based factors helped with the educator’s bonding because much time was spent on planning and cooperative collaboration, allowing teachers and leaders to get to know each other, and their abilities to accomplish tasks” (Fritz, 2018, p. 48).

“Murley, Keedy, and Welsh (2008) found that trust was a prerequisite for working with any educational team trying to motivate students to pass achievement tests and reach the height of their academic success. They analyzed three elementary schools for teacher–teacher and teacher-principal effect on instructional influences. They conducted interviews, completed observation, completed document mining, and analyzed data inductively”. They had two findings:

“First: principals and teachers exchanged influences back and forth with one another through a) informal prerequisite that created a zone of trust for other exchanges of influences, b) exchanges initiated by assertive teachers provided equilibrium between teachers and principals, and c) perceptions that all employees both staff and faculty were valuable instruments in the success of the schools. The second finding was three processes that were analyzed through school wide instruction capacity: a) principal initiative instruction efforts, b) teacher direct instructional initiatives, and c) principal and teacher access to instructional resources (Murley et al., 2008, p. 1, cited in Fritz, 2018, p.49)

“Teachers shared and collaborated ideas to help one another, for example, sharing lesson plans, past and present projects, or past and present instructions that helped their colleagues. Principals shared their thoughts and past and present projects with their subordinates and explained strategies on how they dealt with challenging situations when they were classroom teachers”. (Fritz, 2018, p. 50)

Fritz (2018, 2019) research suggested that school-based practices/factors can be effective and influential strategies for school districts in general. However, the researcher examined twelve school-based practices using descriptive and inferential statistics test inclusive of a survey, using a 4-point Likert scale to analyze perceptions of male and female educators. The male educators had six favorite strategies based on the five highest average scores (two of the school-based practices had the same score).

“The female educators had five favorite strategies based on their highest average scores respectively. The research also suggests when comparing the *means* of both genders revealed three school-based factors were common between both groups. There was some significant difference between the groups concerning some of the school-based factors; however, the significance of the *mean* was based on the overall responses of “strongly agree and agree.”

Fritz (2018, 2019) research also showed “these findings suggested both genders agreed that all twelve strategies to be influential (in general) in helping impoverished students in district X; however, the most influential school-based practices were those practices with the highest averages from each of the individual groups and also those practices common between both groups. The male educators perceived these strategies to be most influential according to the five highest means scores of the survey item. Those school-based practices that were most influential based on the averages according to the male educators are: setting a high expectation for students, parent involvement, consistent intervention, curriculum alignment, classroom management and effective leadership have the same average scores. For the female educators, the most influential school base practices are parent involvement, consistent intervention, collaboration with colleagues, classroom management, and effective leadership. The findings also suggest a common answer to these school base practices according to male and female educators” (Fritz, 2018, pp.206-207).



“The findings suggested that genders perceived and had strong beliefs based on the same school-based practices/factors. According to the results from the Likert scale, each school based practice had the highest score that was common amongst the male and female educator. The school-based practice/factors of Classroom management, consistent intervention, effective leadership and parent involvement were the four highest average scores that were in common between female and male educators, which suggest that both genders would commonly agree that all four strategies would influential in helping impoverished children improve performance” (Fritz, 2018, p. 207).

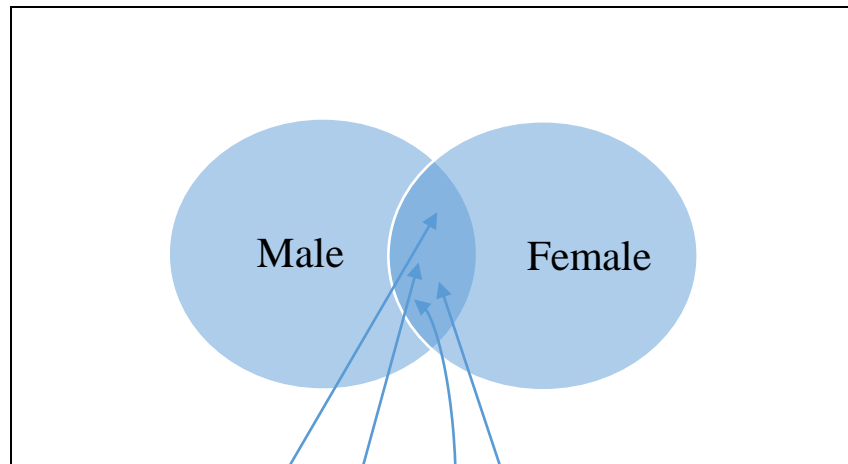


Figure 8.

(Fritz, 2018, p. 132, Fritz, 2019, p. 37)

Parent Involvement

Classroom Management

Consistent Intervention

Effective Leadership

Fritz (2018, 2019) research showed that “according to the Independent t-Test, there was no significant difference for the following school base practices based on the perceptions of male and female educators: Teacher had the accountability for student success, Parent Involvement, Setting high expectations, focusing on students who were performing low in Math, Reading, and Writing, Prompting students to be prepared for higher education or immediate job readiness, Curriculum alignment, Monitor and manage the curriculum, and Classroom management. After the analysis, the researcher has failed to reject the null hypothesis (meaning the researcher accepts the null hypothesis). For these specific school-based factors previously mentioned; there was no significant difference between male and female educators agreeing that school-based practices will be influential in helping impoverished children improve performance” (Fritz, 2018, pp. 208-209; Fritz, 2019).

“There was a significant difference for these practices: Collaboration with colleagues, Effective leadership, Consistent intervention and being mindful of time and transition. The effect size was calculated using Cohen’s d. Collaboration with colleagues had a medium strength effect size. The medium strength effect size suggests there was a significant spread of the mean scores. There was some educator who disagreed with this strategy; however, there was an abundant amount of those educators who agreed and strongly agreed which affected the average score causing statistical significance between both male and female educators. Even though there was statistical significance, the analysis showed based on the genders’ scores- collaboration with colleagues is an effective school-based practice and influential in helping the impoverished student improve performance” (Fritz, 2018, pp. 208-209).

“The consistent intervention had a large effect size, which suggests a significant spread in the *mean* scores. There were some educators who disagreed with this strategy; however, there was an abundant amount of those educators who agreed and strongly agreed which affected the average score causing statistical significance between both male and female educators. Even though there was statistical significance, the analysis showed based on the genders’ scores-consistent intervention with colleagues is an effective school-based practice and influential in helping the impoverished student improve performance” (Fritz, 2018, p. 210).

“Effective Leadership had a medium effect size, which suggests a large significant spread in the *mean* scores. There were some educators who disagreed and 1 strongly disagreed with this strategy; however, there was an abundant amount of those educators who agreed and strongly agreed which affected the average score causing statistical significance between both male and female educators. Even though there was statistical significance, the analysis showed based on the genders’ scores consistent intervention with colleagues is an effective school-based practice and influential in helping the impoverished student improve performance” (Fritz, 2018, p. 210).

“Being mindful of time and transition had a large effect size, which proposed a large significant spread in the *mean* scores. There were some educators who disagreed with this strategy; however, there was an abundant amount of those educators who agreed and strongly agreed which affected the average score causing statistical significance between both male and female educators. Even though there was statistical significance, the analysis showed based on the genders’ scores - consistent intervention with colleagues is an effective school-based practice and influential in helping the impoverished student improve performance” (Fritz, 2018, p. 210).

“Since there was a significant difference of the four school-based factors (collaboration with colleagues, effective leadership, consistent intervention and being mindful of time and transition) based on the responses of the males and female educators’ completing the survey which contained the 4 –point Likert scale; the researcher rejected the null hypothesis (this means the alternate hypothesis was considered). The researcher concluded, there was a significant difference between male and female agreeing that school-based practices will be influential in helping impoverished children improve performance” (Fritz, 2018, p. 210).

“The significant difference was due to the educator choosing mostly agree or strongly agreed on the Likert scale. The male and female educators perceive that these school base factors are all influential in helping impoverished children improve performance in general. However, both individual groups had their own high averages for certain strategies. The findings suggested four of the most common factors in the agreement between the male and female educators of District X, that were influential in helping impoverished students were classroom management, effective leadership, consistent intervention and parent involvement” (Fritz, 2018, p. 210).

“Fritz (2018) studied these issues of poverty that were examined: homelessness, hunger, unemployment, health issues such as asthma, other possible health issues besides asthma, mental health and possible disabilities affecting children’s or parents’ health, student mobility, poor attendance and low socioeconomic status.”

“These issues of poverty can affect the students’ academic progress keeping them learning and performing up to their maximum potential. The barriers of poverty have changed the dynamics of family, lower children’s self-esteem and caused many students to give and drop out of school.” The researcher examined nine issues of poverty using descriptive and inferential statistics test inclusive of a survey using a 4-point Likert scale to analyze perceptions educators based on their experience on which three issues are most prevalent within the district. The researcher examined if there were any strong feelings and beliefs of the educators based on their experience that suggested statistical significance if any of the nine issues of poverty.

According to the descriptive statistics, the analysis suggested that hunger, low socioeconomic status, and unemployment are the most prevalent issues of District X based on the responses of educators’ years of experience. The researcher analyzed the averages of these issues and found that the educators’ felt very strong these issues them being a barrier to the students within the district” (Fritz, 2018, pp. 211-212).

“Fritz (2018) Analysis of variance test was conducted to examine statistical significance for all nine issues of poverty. The issues of poverty that had no statistical significance were: homelessness, hunger, student mobility, asthma, poor attendance, mental health and possible disabilities affecting children’s or parents’ health, unemployment, and low socioeconomic status. Educators’ based on their years of experience felt as though these issues of poverty were challenging barrier for the students. Educators’ had a strong perception of these issues based on the *mean* scores of the 4-point Likert scale” (Fritz, 2018, p.213).

“Since this issue had no significant difference, the researcher failed to reject the null hypothesis (which means the null hypothesis is accepted). The researcher can conclude based on the statistical analysis of ANOVA, these issues of poverty: homelessness, hunger, student mobility, asthma, poor attendance, mental health and possible disabilities affecting children’s or parents’ health, unemployment, and low socioeconomic status suggested- there is no significant difference in the strong perceptions and belief of educators regarding the issues of poverty on student achievement based on years of experience” (Fritz, 2018, p.213).

“The issue of other possible health issues besides asthma had a statistical difference, Post Hoc multiple comparisons test was run to find out exactly where the significant difference was located between the groups. There was a significant difference between educators who had (0-5) years of experience with the educators who had (6 -12) years of experience concerning this issue. There was also a significant difference with the same group of educators with (0-5) years of experience compared to the educators with (12 -17) years of experience.”

“The average scores concerning this issue of the educators that had (0- 5) years of experience were significantly higher among those educators of (6-12) and (12-17) years of experience. The effect size was very small; it suggested a small portion of the variance from the perceived notion, that other health issues besides asthma effect children learning within the community are explained by educators’ (Likert scale) responses based on years of experience. Hence, this item has a very weak effect size” (Fritz, 2018, p.213).

“Since there was a significant difference, the researcher rejected the null hypothesis (which meant the alternative hypothesis was considered). For the impoverish issue of other possible health issues besides asthma, the researcher concluded that there was a significant difference with the strong perceptions/belief of educators regarding the issues of poverty on student achievement based on years of experience. The significant difference between the groups was impacted by the strong beliefs of educators based on their years of experience. For example, the significance lies between *means* of those educators mostly responding with “strongly agree and agree;” there were some who strong disagreed and disagreed, which affected the averages but did not have much bearing on the analysis. This suggests that most of the educators basically agreed these issues were burdens to the children within the district” (Fritz, 2018, p.213).

“Educators had strong feelings pertaining to all nine of the issues of poverty and agreed that this issue had some impact on the children within the district, but had the strongest feeling about hunger, low socioeconomic status, and unemployment which had the most impact on the children within the district. Hunger, low socioeconomic status, and unemployment are the biggest issues of District X based on the finding of the research; however, the other six issue of poverty were barriers to students as well but not as much as the three top issued mentioned. Hunger was the top issue over all that affected the children within District X” (Fritz, 2018, p.214).

### **2.1.8 The Daniel C. Fritz Perception Model**

The Daniel C. Fritz Perception Model is used to measure the perception strength of participants based on research of interest (Fritz, 2020). “The researcher performed a previous study conducting an analysis on all issues of poverty that were discovered within District X. Those issues/characteristics were homelessness, hunger, unemployment, health issues such as asthma, other possible health issues besides asthma, mental health and possible disabilities affecting children’s or parents’ health, student mobility, poor attendance and Low socioeconomic status can affect behavior in students. However, the research suggested three of the most challenging characteristic to the children of School District X” (Fritz, 2020, p.17).

“Fritz (2020) showed that low socioeconomic status; hunger and unemployment were the most challenging barriers to students’ academic success, which were based on the responses of the educators’ from the survey instrument. In this study, the researcher used the *Daniel C. Fritz Perception Model* according to the 4-point Likert scale showed the perception strength of each characteristic of poverty based on the responses of the educators according to their experience. Low socioeconomic status of the children’s parents being was one of the dominant barriers of poverty causing lack of academic success for children within the district” (Fritz, 2020, p.17).

Fritz (2020) showed “the perception strengths and beliefs of how the educators felt about low socioeconomic status as an issue within the district was based on the calculations from the *Daniel C. Fritz Perception Model*. The group of educators with (0-5) experience felt 79% strongly about low socioeconomic status being an issue within the district.

The educators with (6-11) years of experience felt 77% sure that low socioeconomic status was a problem, educators with (12-17) years of experience had beliefs of 80% and educators with (18-over) years of experience had 80% perception strength as well. Ironically, educators with the years of experience from (12 -17), (18 and over) had the same perception strength of 80%. These two groups from the data presented were 80% in agreement about this characteristic of poverty being an issue within the district. Based on the overall averages of the percentage strengths from all four groups of experiences, the researcher concluded that educators felt 79% strongly about low socioeconomic status of the children's parents being one of the biggest challenging issue within the district affecting student achievement" (Fritz, 2020, p.17).

"Hunger was one of the most challenging characteristics of poverty impeding academic success within the district. The perception strengths and beliefs of how the educators felt about hunger as an issue within the district was based on the calculations from the *Daniel C. Fritz Perception Model*. The group of educators with (0-5) experience felt 79% strongly about low socioeconomic status being an issue within the district. The educators with (6-11) years of experience felt 82% sure that low socioeconomic status was a problem, educators with (12-17) years of experience had beliefs of 81% and educators with (18-over) years of experience had only 75% perception strength. The group of educators with (6-11) and (12-17) had high beliefs and perceptions about hunger impeding children's chances of high achievement. Based on the overall averages of the percentage strengths from all four groups of experiences, the researcher concluded that educators felt 79% strongly about hunger being one of the biggest challenging issue within the district affecting student achievement" (Fritz, 2020, p.17).

"Unemployment was one of the most distressful characteristics of poverty preventing academic success for children within the district. The perception strengths and beliefs of how the educators felt about unemployment as an issue within the district was based on the calculations from the *Daniel C. Fritz Perception Model*. The group of educators with (0-5) experience felt 76% strongly about low socioeconomic status being an issue within the district. Educators with (6-11) years of experience felt 79% sure that low socioeconomic status was a problem, educators with (12-17) years of experience had beliefs of 77% and educators with (18-over) years of experience had only 81% perception strength. Based on the overall averages of the percentage strengths from all four groups of experience, the researcher concluded that educators felt 78% strongly about unemployment being one of the biggest challenging issue within the district affecting student achievement" (Fritz, 2020, p.17).

### **Recommendations**

"Poverty continues to exist and impact students trying to achieve academically. Poverty had impacted families and their children since the Great Depression up to World War II and beyond, up to today. The next study should be conducted in a larger district with before and after test scores in the subjects: math, reading, and English; the school-based factors should be implemented as strategies to ascertain if there was any growth and improvement due to the applications of the appropriate school-based factors".

The researcher recommends continuation of lunch programs to feed those children who are hunger and come to school on an empty stomach. It is difficult to learn on an empty stomach. The researcher recommends continuous interventions to build rapport and healthy Teacher-to-student relationships, parental involvement, classroom management and effective leadership as a viable initiative to overhaul school improvement and to counter poverty, a barrier to classroom improvement among impoverished school children (Barr & Parrett, 2007; Hayes 2008; Marzano, 2003, Shannon & Bylsma, 2007, cited in Fritz, 2018, p. 220).

### **Acknowledgements**

I want to give honor and thanks to the Father and my Lord and Savior, Jesus Christ who brought me through the most challenging times in my life. I want to give thanks to God for giving me the wisdom, strength, perseverance and my calling to make a difference and contribution to the world of education. I want to give thanks to my Great Aunt who was my "mom" by raising me and giving me life with the help of the Lord.

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