RESILIENCE AMONG MIDDLE SCHOOL STUDENTS

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Resilience is the ability to survive and persevere during difficult times. Resilient people also thrive after overcoming adversity. Adolescents have many developmental tasks to overcome in their quest to becoming adults. Difficulty with these tasks can lead to academic and personal failures. Adolescents with low resilience often struggle with low self-esteem. If students are identified early as having lower levels of resilience, professional school counselors have an opportunity to provide resilience-enhancing activities. Prior to middle school, students are assigned all of their classes. During middle school, students begin to select their elective courses which may be representative of their interests and current emotional status. By looking at students’ elective courses, I looked for patterns of resilience that may help professional school counselors proactively identify students in need of additional guidance in order to be academically successful.

This study utilized a convenience sample of middle school students enrolled in the 8th grade \( (N = 190) \) of a large suburban school district located in the southwest United States to measure levels of resilience and elective course enrollment. Gender of the participants was 107 females and 83 males. The students reported their ethnicity as 5.8% African American/Black, 11.1% Asian, 12.6% Hispanic, 1.1% Native American, 1.6% Pacific Islander, 59.5% Caucasian/White, and 8.4% multiracial. I measured resilience in this study using the Resilience Scale and comparisons based on elective course. Data analyses include descriptive statistics and ANOVAs. Based on a statistical significance criterion of \( p < .05 \), students enrolled in athletics scored significantly higher
in resilience than did non-athletics students enrolled in physical education/outdoor education ($p = .035$). Additionally, Caucasian females were significantly less resilient than Caucasian males ($p = .031$). Limitations of the study, implications of the results for practice, and recommendations for future research are presented.
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>CHAPTER 1 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>4</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>8</td>
</tr>
<tr>
<td>CHAPTER 2 LITERATURE REVIEW</td>
<td>10</td>
</tr>
<tr>
<td>Resilience</td>
<td>10</td>
</tr>
<tr>
<td>Definition</td>
<td>10</td>
</tr>
<tr>
<td>History</td>
<td>13</td>
</tr>
<tr>
<td>Measurement</td>
<td>20</td>
</tr>
<tr>
<td>Adolescents</td>
<td>23</td>
</tr>
<tr>
<td>Adolescent Development</td>
<td>23</td>
</tr>
<tr>
<td>Obstacles to Developmental Well-Being</td>
<td>25</td>
</tr>
<tr>
<td>Facilitative Environment</td>
<td>29</td>
</tr>
<tr>
<td>Supportive Services</td>
<td>29</td>
</tr>
<tr>
<td>Elective Courses</td>
<td>31</td>
</tr>
<tr>
<td>CHAPTER 3 METHODS AND PROCEDURES</td>
<td>33</td>
</tr>
<tr>
<td>Research Question</td>
<td>34</td>
</tr>
<tr>
<td>Research Null Hypothesis</td>
<td>34</td>
</tr>
<tr>
<td>Definitions of Terms</td>
<td>34</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>39</td>
</tr>
<tr>
<td>Procedures</td>
<td>41</td>
</tr>
</tbody>
</table>
1. Ethnicity Participation compared to District Population ...............................................39
2. One-way Analysis of Variance for Gender .................................................................48
3. Gender Mean Comparison .........................................................................................48
4. One-way Analysis of Variance for Ethnicity ............................................................49
5. Ethnicity Mean Comparison .....................................................................................50
6. Means by Gender within Ethnicities .......................................................................51
7. One-way Analysis of Variance for Gender within Caucasians .................................52
8. One-way Analysis of Variance for Athletics/Physical Education ..............................53
9. Athletics and Non-athletics Mean Comparison .........................................................54
CHAPTER 1

INTRODUCTION

Members of the American School Counselor Association (ASCA) wrote the ASCA National Model outlining a framework for school counseling programs. The model, based on over 50 years of research and practice, provides a consistent approach for counseling program use nationally. Following this model, professional school counselors (PSC) provide programs with a focus and direction, enhance student abilities, and utilize their professional competencies in an ethical manner. The enhancement of student competencies focuses on academic, career, and personal/social development (American School Counselors Association, [ASCA] 2013).

The foundation of the ASCA national model is the ASCA student standards (ASCA, 2004). The standards define specific skills within each of the academic, career, and personal/social areas. Personal and social skill development focuses on skills needed to progress successfully into adulthood. Students need to acquire self-knowledge, interpersonal skills, personal safety skills, and the ability to apply self-knowledge. Self-knowledge skills include developing positive attitudes towards self, identifying personal strengths, and understanding self-control. Interpersonal skills include recognizing and accepting differences among people, and use of both verbal and nonverbal communication. Personal safety skills include establishing appropriate personal boundaries, identifying resources for assistance within the community, and problem-solving/decision-making strategies for personal safety and health. Applying self-knowledge includes understanding role of peer pressure, and knowing how perseverance and persistence benefits them (ASCA, 2004). The skills identified within
the personal and social development section of ASCA’s student standards are similar to skills related to resilience. The PSC ability to recognize resilience in students might enhance the implementation of their school counseling programs.

Descriptions of resilient people indicate them as having the ability to handle change, difficult situations, chaos in life, or manage the stress of one’s environment while thriving in the face of adversity (Henderson, 2011; Hunter & Chandler, 1999; Masten, 2001; Masten & Obradovic, 2006; Newman, 2005; Richardson, 2002; Wagnild, 2011, Werner & Smith, 1982, 1992, 2001; Zautra, 2009). Resilience is innate but not always fully developed. People have the ability to enhance resilience with awareness and effort (Masten, 2001; Richardson, 2002). Resilience is not a static, easily identifiable trait but a mixture of various skills and attitudes, which fluctuate over time.

Werner and Smith (1977, 1982) noted, while studying a cohort of children from birth through adulthood, some children at-risk succeed despite the obstacles in their lives. At-risk children in the Werner & Smith study lived in poverty with few material goods, had lower educated parents, and/or medical concerns at birth or early childhood. Their childhood environment provided little to no emotional/educational stimulation. The majority of birth mothers did not graduate high school and the fathers of the at-risk children were unskilled or semi-skilled labors. The researchers looked at what made successful children, despite being considered at-risk, different from their peers, what made them able to experience life challenges in a more successful, resilient manner.

Protective factors are keys to success in resilient children. Researchers identified resilient children as having an internal locus of control, supportive relationships, realistic plans, healthy self-efficacy, communication and problem solving skills, and informal
support sources. Protective factors did not develop in a moment but built on each other over time, creating a sum greater than the parts. Resilience developed as children believed they were capable, believed what they did mattered, and believed that they mattered to someone (Masten, 2001; Masten & Obradovic, 2006).

Throughout the journey from childhood into adolescence and emerging into adulthood, some people are able to build upon experiences and improve their condition. People who experienced atrocities of war and violence, thought unbearable by others, show high levels of resilience while others from the same situation suffer greatly (Harvey, 2007; Harvey & Tummala-Narra, 2007; Vetter et al., 2010). Children thought to have little to no resilience, eventually found their protective factors during adulthood. Reflectively, adults reported the significance of receiving an education or career preparation in helping them break the poverty cycle. Their belief in themselves developed further when they met a supportive partner. The belief and support found in adulthood, that some of their peers experienced as children and adolescents, helped these adults find their own resilience (Garmezy, 1971; Henderson, 2007a; Maddi & Khosaba, 1994; Werner & Smith, 1977, 1982, 1992).

From an individual psychology perspective, the ability to be social embedded provides the individual with a sense of self and ability. From earliest experiences and family interactions, the individual develops how they see and react to the world, their social interest, their resilience (Mosak, 2005; Watts, 1999).

Recognizing the power of resilience in an individual’s ability to overcome obstacles raises the question of how it works with adolescents. Adolescence is a time of growth, individualizing, and struggle. Working with adolescents has always provided
unique challenges: helping someone who wants no help from adults, unpredictable hormonal and mood-related swings, and a need to be independent yet are still dependent. Added to these challenges are the increased usage of technology and social media influences on adolescents (Havighurst, 1972; Mistray, McCarthy, Yancy, Lu, & Patel, 2009).

Adolescents spend the majority of their time, outside of home, in a school setting attending classes and extracurricular activities. School personnel not only teach academics but also life skills needed to be an adult. Aiding adolescents in their transition to adulthood is one of the unwritten job duties of counselors, teachers, coaches, and other school staff. Professional school counselors work to ensure adolescents take the correct courses for graduation and future success, provide guidance lessons, and aid in crisis resolution (ASCA, 2013).

School counselors handle the crisis and confusion of students’ lives. Adolescents seldom leave their family and community problems at the school door. Counselors and school staff recognize the needs students have but often struggle to get all of their job requirements done while also providing the care and nurturing needed by students. Without skills to cope with stressful situations, belief they can cope, and support of caring adults and peers, adolescents can cycle into victim mentality and struggle for years (ASCA, 2013).

Statement of the Problem

The ongoing role of adolescence is to develop into a functioning adult within society. Whereas many adolescents appear to be successful during this transition, there are those who struggle with developmental tasks (Havighurst, 1972). Mental health
issues, in particular anxiety and mood disorders affected youth at early ages (Merikangas et al., 2010). Of adolescents with mental health issues identified in the US children in the 2001-2004 National Health and Nutrition Examination Survey, anxiety began on average at age 6, behavior issues at age 11, mood disorders by age 13, and substance use by age 15 (Merikangas et al., 2010). According to the Federal Interagency Forum on Child and Family Statistics (2011), 21% of youth 17 and under live in poverty. All of the previous are issues that may make school functioning difficult.

Longitudinal studies indicated there are adolescents who, despite living in poverty, with incapacitated parents, or with their own health risks, appear to survive in a healthier manner than peers facing similar issues do. The ability to respond to difficult situations and not only move on but also thrive is resilience (Werner & Smith, 1977, 1982). Identifying who among the “at-risk” will thrive and who will need help through the obstacles of development is not an easy task. Resilience is how individuals react to challenging situations. History of coping may be a beneficial identifier but school personnel need to address proactively the needs of their students.

Front-line service providers in schools are professional school counselors (PSC). PSCs work through many duties and need to provide services in as efficient a manner as possible. They need to identify which adolescents are able to successfully advance through development. These students, often considered more resilient than their peers, are able to face challenges in a successful manner. By identifying students with lower resilience, counselors may be able to provide students with opportunities to enhance their resilience (ASCA, 2013; Werner & Smith, 1977, 1982).
Unfortunately, public schools are facing serious funding situations. With current economic stressors, school districts are working with reduced budgets but expectations of continued and/or improved services for their students. This, in turn, requires PSCs to carry larger caseloads, manifesting the need to determine in a timely and efficient manner which students need more assistance.

In the State of Texas, the state legislature reduced school funding by $4 billion (Huffington, 2011) for the 2011-2012 fiscal school year. Budget cuts affected districts throughout the state, requiring reviews of funding of all programs. PSCs face meeting the needs of students with the same or reduced budgets. While staff numbers remain the same, or reduced in some cases, counselors are facing larger numbers of students with severe problems (ACA 2013, Merikangas et al., 2010).

By being able to identify possible student groups with tendencies of lower resilience, counselors may be able to provide services in a proactive manner. In addition, a counselor or other staff member can identify students, in groups generally showing higher resilience, presenting with greater difficulties and aid them in a timely manner.

Adolescents need skills that will allow them to build self-esteem and make healthy life choices. Students in the eighth grade have already made a major life transition, elementary school to middle school. Students use skills learned from that experience, both helpful and hindering, during future transitions. Without guidance, those who had a difficult transition will most likely repeat their mistakes (Havighurst, 1972). In addition to transition, adolescents have also experienced personal decision-making experiences by the eighth grade. During elementary years, school personnel
assigned all classes to students. Seventh grade gives adolescents a limited opportunity in choosing electives.

Based on personal observation, in the eighth grade, students begin to recognize what classes fit them better, those they enjoy. Course selection becomes more about individualized choice. Having class with a friend in seventh grade may have been fun, but not in the end if the student found the subject uninteresting. My experience in middle schools indicated not all adolescents are ready to make their own decisions regarding classes; some allow their parents to do it for them. Others have parents who will not allow them to make their own decisions and insist on doing it for them. For other students, a teacher or counselor may make the decision because the student was unsure or simply refused to submit the required paperwork. Decision-making is part of adolescent development; successful decision-making skills are part of resilience (Havighurst, 1972).

Successful decision-making skills are an asset as adolescents move into high school. More course decisions are required to fulfill college and career requirements. Adolescents face additional obstacles in high school. Frustration with school may lead to dropping-out, drug use, unsafe sexual encounters, and suicide ideation or attempts. If identification of adolescents in middle school with lower levels of resilience is possible, the process of building resilience and self-esteem through activities to enhance individual qualities can already be initiated.

Kazdin (1993) stated that by the time treatment is needed for mental and physical health problems, problems might be too difficult to treat. He reported,
The focus of treatment usually is on individuals with problems; such a focus
neglects systems (e.g., peer groups, families) and environments (e.g., schools)
that might be mobilized to avert problems. Prevention is advanced as a cost-
effective alternative to at once reach large numbers of youth, to alter
environments that promote dysfunction, and to intervene early to reduce
incidence of impairment. (Kazdin, 1993, p. 136)

Counselors and other school personnel need an effective and efficient manner to
identify students with lower levels of resilience who may need additional assistance.
Identifying groups of students by elective course enrollment, curriculum components for
those classes may contain a section on resilience. A proactive, student-involved
learning experience, including methods to enhance personal qualities, should facilitate
resiliency. With a broader approach to resilience enhancement, a counselor can then
focus on small groups of students who are struggling and have a significant need to
develop additional skills.

Purpose of the Study

The purpose of this study was to determine if an adolescent’s level of resilience
differs based on gender, ethnicity, or elective courses taken in the eighth grade. This
study utilized the Resilience Scale (RS). Researchers used the RS with a large range of
ages and it was identified as appropriate for use with adolescents (Ahern, Kiehl, Sole, &
Byers, 2006; Wagnild, 2011). Identification of a difference among adolescent
subpopulations and resilience levels could lead to instructional components added to
elective courses to enhance resilience. By purposefully addressing resilience
development, students could increase personal abilities for recovery, leaving fewer students at risk.
CHAPTER 2
LITERATURE REVIEW

The following literature review centers on adolescent resilience, adolescent development, and the role of a facilitative environment in enhancing resilience. The focus is on the definition, history, and measurement of resilience with an emphasis on the adolescent population. The adolescent development section reviews social and emotional development, and obstacles faced in achieving psychological well being. The final section addresses the role of a facilitative environment and how it may enhance adolescent resilience.

Resilience

People face adversity and overcome great odds while living their lives. Children grow up in unhealthy situations, yet become healthy adults. Some people face obstacles they cannot deal with, while others facing the same obstacles overcome and move on with their lives. The survivors, achievers, and believers all have resilience.

Definition

Resilience is recognized as the ability to handle change, recover from difficult situations, disruptions in life, and manage stress (American Psychological Association, [APA] 2011a, 2011b; Hunter & Chandler, 1999; Newman, 2005; Resilience, 1999; Richardson, 2002; Werner & Smith, 1982, 1992, 2001; Zautra, 2009). Within the social science perspective of resilience, the focus goes beyond the ability to recover. Researchers consider resilience as the ability to be stronger after facing change or adverse stressors, to experience success with life, to thrive in the face of adversity. People with resilience are able to bounce back despite overwhelming obstacles.
The ability to be resilient is not unique to certain individuals or cultures. It is considered an innate trait, an ordinary process that all people have, and may be more developed in some individuals (APA, 2011b; Masten, 2001; Richardson, 2002). Within the individual psychology perspective, having resilience is similar to social interest. The ability to handle or not handle situations and environments are within the abilities of the individual (Mosak, 2005; Watts, 1999).

Masten (2001) defined resilience from both an external and internal perspective. External supports include an environment which is supportive and caring, with expectations of success, value-added participation, close relationships, healthy boundaries, and appropriate life skills. Internal resilience qualities are sociability, volunteerism, humor, internal locus of control, perceptiveness, independence, optimism, flexibility, ongoing learning, self-motivation, competence, belief in self, belief in a higher power, perseverance, and creative expression (Henderson, 2007a). Adolescents with low levels of delinquency and appropriate academic success may be considered resilient from the external perspective of resilience. Those adolescents with positive mental health and lower levels of stress may be resilient based on an internal perspective. Alternatively, resilience may also be a combination of both the internal capabilities of a person and external factors in the environment (Masten, 2001; Masten & Obradovic, 2006).

Some researchers disagree with the use of the term “factors” in favor of developmental assets or characteristics. The majority of researchers agree resilience is
not a single tangible item but many components working together enhancing an individual’s ability to be resilient (Rak & Patterson, 1996; Richardson, 2002). Some protective factors are identified as internal locus of control, supportive relationships, realistic plans, healthy self-efficacy, communication and problem-solving skills, and informal support sources. Those with an internal locus of control are able to guide themselves through their beliefs rather than the words or actions of inappropriate peers or unsupportive guardians. They develop higher levels of belief in themselves and their capabilities; allowing self-efficacy growth. Adolescents with a variety of people in their life: coaches, youth leaders, helpful neighbors, caring bosses, and involved extended family, tend to believe more in themselves and what they are capable of accomplishing than their less-supported peers. By being able to communicate thoughts, feelings, and concerns in a productive, healthy manner, adolescents are able to build the relationships they need to face obstacles in their lives. Resilience grows, and adolescents develop dreams they can achieve (Garmezy, 1971; Henderson, 2007a; Maddi & Khosaba, 1994; Werner & Smith, 1977, 1982, 1992).

Another identified protective factor for adolescents was actively being responsible for other people or other significant tasks. External positive supports were also identified as important factors in handling stressful situations. Positive role models who believe in an adolescent and provide opportunities for growth build resiliency. Being responsible and having social support during difficult times enhance resilience. Taking care of others, being responsible for one’s actions, and becoming proactively involved in a variety of situations all lead to increased resiliency (Mercer, 2010; Rak & Patterson, 1996).
Within the definition of resilience is the need to identify the meaning of protective factors. Protective factors are skills or resources individuals have developed allowing them to adapt and recover. Most resilience research focuses on positive adaptive versus maladaptive choices or skills used (Masten & Obradovic, 2006). Researchers need to consider both when looking at resilience. Maladaptive resilience behaviors (e.g., running away, drug use) are generally protective fixes to unacceptable situations; they work for the short term but require additional assistance restructuring into adaptive resilience traits.

Adolescents have limited control of their home environment and often choose options, which some many consider extreme, to make themselves feel safer than their home environments. Running away may occur because of physical, sexual, or emotional abuse from parents or caregivers. The need to escape from parents’ mental health issues can be a reason for drug use. Oftentimes, an adolescent’s sexual identity may be extremely objectionable to their parents, leaving the teen feeling a need to escape - either physically or through drug use. Adolescents who were runaways or drug users reported they were resilient, meaning they were surviving their situations, despite the societal view of these activities as harmful (Hunter & Chandler, 1999; Rew, Taylor-Seehafer, Thomas, & Yockey, 2001; Richardson, 2002).

History

During the 1950s, a multi-discipline team began a longitudinal study of the risk factors faced by all children conceived and born in Kauai at that time (referred to as the Kauai Study). They followed the “what and when” of events during pregnancies and in children’s lives. The study reviewed pregnancy records, birth records, and the
associated medical and community service-provider records. Investigators conducted interviews with mothers. By age 2, health professionals evaluated the children for medical and intellectual abilities. Kauai Study researchers documented predictions regarding future school difficulties based on the findings and historical patterns. Fathers’ occupations and incomes, parents’ age, mothers’ physical size, and ethnicity were all tracked in order to identify any patterns (Werner, Bierman, & French, 1971).

Earlier research used a historical, reflective perspective, looking at the struggling adults and tracing back to the cause of their current maladaptation. While the study identified many risk factors: poverty, low parental education level, and health issues, an unexpected outcome arose. Despite many obstacles and risk factors, family patterns of instability, unusual childhood behaviors, and teenage mothers, a large number of the children did not develop the anticipated difficulties but were, in turn, successful either at early ages or by adulthood (Werner et al., 1971; Werner & Smith, 1977).

The Kauai Study researchers continued to follow the children of the original study over several decades. By the time the children were 18, researchers noted that difficulties from perinatal complications and other at-risk predictors did not occur in the majority of the children due to their personal growth, belief in the possibility of change, and high level of resilience. The researchers continued to look at how some children were able to move beyond, what research indicated were obstacles, to their success. Successful adolescents looked to their parents as role models, found support and understanding from friends and family, utilized coping skills, and shared family values related to education, career, and social requirements. Struggling adolescents self-
reported low self-confidence, poor interpersonal skills, and an inability to use their intellectual abilities to their benefit (Werner & Smith, 1977).

The struggling adolescents faced new difficulties during this time of transition from childhood. One of the largest obstacles was the youths’ belief that they did not control their own outcomes. They failed to plan realistically for their education and careers. They did not feel supported by peers or family. They did not consider professional help useful. Adolescents who were able to improve during this time indicated a belief in support from parents and peers, an increased belief in the effectiveness of their actions, and improved communication skills (Werner & Smith, 1977). Successful adolescents had learned how to handle poor living conditions, familial problems, and overall environmental stressors proactively with resilience, with success in school and involvement in their families and communities. Internal locus of control, along with communication skills, appeared to be strong indicators of successful adaption.

Researchers worked with a multi-cultural, Caucasian, Pacific Islander, and Asian sample, who often spoke two languages. Their familial cultural expectations were in conflict with school/societal expectations. Youth who were able to adapt to requirements/expectations of both their family and the greater community were able to recognize differences and respond according to setting. Youth who were unable to recognize differences were identified often as “at-risk” in school but functioning well at home. These students’ self-reports indicated a greater level of external locus of control and feelings of helplessness (Werner & Smith, 1977).
While Werner and Smith were working in Kauai, Garmezy (1971) conducted research on the mainland. His work looked at adult children of schizophrenic parents. As data was gathered, researchers noted a large number of subjects were showing healthy, positive traits in their ability to adapt. This was an unexpected finding. Garmezy referred to healthy but at-risk children as “invulnerable” due to their level of adaptability. He noted prevention work often focused on unsuccessful children in unhealthy environments, ignoring those who were successful despite the environment.

Anti-social children in the study displayed more difficulties in adulthood, while anxiety-prone children had better outcomes. During data collection, researchers noted retrospective case histories gathered from normal families were often unreliable. This raised concern as to how reliable recollections from mentally ill parents were in describing their child’s early years. This concept led the researchers to believe an extended longitudinal study, rather than a historical perspective of data gathering, was required to identify a more realistic picture of events. The researchers were unaware, at the time, of the information gathered in the Kauai study (Garmezy, 1971; Garmezy, 1982; Rutter, 1985).

Previous research focused on effects of poverty in keeping people maladaptive. With hindsight, Garmezy noted ability to overcome poverty was what built the United States; generations of immigrants worked their way out of poverty and slum environments without developing psychopathologies. They did not let their circumstances hold them back from their dreams or create a sense of hopelessness. He indicated a retrospective approach to research often seemed to forget success stories, focusing on maladaptation. He thought of “invincible” children as those who, over
generations, had made a success of themselves and their environments (Garmezy, 1971).

Over the next decade, Garmezy and his colleagues continued to review what allowed some children to succeed despite risks in their environment. They looked at children within the school setting, reviewing academic achievement, classroom behaviors, and peer skills as they related to their adaptability. They noted primary caregiver capabilities were significant in resilient attributes of healthy children. Researchers indicated more work was needed to analyze the variety of factors influencing a child’s ability to use their resilience including individual dispositions, biological impacts, environmental influences, and unusual events (both positive and negative) experienced by the individual (Garmezy, Masten, & Tellegren, 1984).

As Werner and Smith continued to follow their study cohort, other research identified the need to address environmental influences on children. Three areas of resilience development were identified: providing an environment with positive expectation, providing opportunities for individuals to participate, and providing care and support (Benard, 1993). School personnel were challenged to look at their personal level of resilience. In order to provide a healthier learning environment, researchers identified teachers, administrators, and staff as needing to recognize their own level of resilience and work to enhance it (Benard, 1993; Muller, Gorrow, & Fiala, 2011).

Benard (1993) identified schools as an important safe environment for children to escape, even if for just the school day, from the stress-filled environments of their homes and communities. Caring peers/friends, teachers, and other supportive adults in both the schools and community often helped children enhance their resilience. The
ability to have extracurricular activities, library availability, vocational opportunities, and creative art experiences were all identified as strengtheners in an individual’s resilience development and aided in making healthy choices. The ability to participate, even lead, in activities was identified as enhancing self-esteem (Benard, 1993; Brown, S., 1954; Werner & Smith, 1992).

Werner and Smith (1982, 1992, and 2001) continued to follow the adolescents of the Kauai study to adulthood. In their early 30’s, participants reported what had allowed them to be successful as adolescents; and for those who had been unsuccessful, what helped them to turn around their life situations. It should be noted there were those participants identified as “at-risk” at an early age who were still suffering from perinatal and environmental disturbances, living in poverty, struggling with employment, substance abuse problems, and multiple failed marriages.

Werner and Smith identified the children of Kauai with higher resilience as being more autonomous with positive social capabilities as toddlers. During childhood, the more resilient children had age-appropriate problem solving skills, reading and communication skills, and they had interests/skills reflective of both genders. Adolescent development showed increased levels of internal locus of control, positive self-regard, and realistic future goals for the more resilient participants. These adolescents also had a variety of informal support opportunities in their lives. In general, they were adaptable, closely connected to others, and part of their community (Werner & Smith, 1982, 1992, 2001).

Some of the adults in their 30s were just recovering from their childhood and adolescence. Having experienced mental health issues, teenage pregnancies, and
various types of delinquent behaviors during youth did not foretell of an unhealthy adulthood. They were working, having families, and participating in their communities in productive roles. These resilient adults identified having developed belief in their capabilities, having a spouse or partner who believed in them, and having faith or prayer in their lives. Faith was not tied to established religion but more to a core value. These adults reported several criteria as aiding in developing their self-belief and becoming more resilient: obtaining a high school degree or equivalency, attending community college, joining the military, and being active participants in their religious groups. These activities lead significantly toward a second chance at acquiring the resilience missed in their adolescence (Werner & Smith 1982, 2001).

Unfortunately, one in six of the adults, from the childhood at-risk group, were still struggling. Two key factors in common among this group were long term paternal alcoholism and a family history of mental health issues. Some children identified at low risk developed coping difficulties in adulthood. Mental health issues (Werner & Smith, 2001) also affected them.

More recently, the American Psychological Association (APA) published several brochures related to resilience subsequent to the September 11, 2001 attacks. These brochures reiterated the ordinary nature of resilience and the ability to enhance it further. Authors identified working from a resilience perspective was not about taking away emotional pain but allowing individuals to heal by finding their strengths. The Road to Resilience brochure identified the factors of resilience, methods to enhance resilience, ways to look at past resilience, and organizations that can help individuals further develop their resilience (APA, 2011b).
The APA’s initiative to enhance resilience came at a time when people wanted to be strong and individuals were eager to learn what might help them recover. Resilience enhancement identified a uniquely individual process; no two people will go through the same process. Resilience is a multidimensional series of traits, experiences, and environments. The author of the brochure emphasized for the individual to find activities and services that fit their unique needs (Newman, 2005).

The need to focus on strengths instead of weaknesses is a current path of research. Building upon strengths instead of focusing on risk factors is identified as a healthy approach to enhance child development (Benard, 1993). Organizations working within the larger public sector (e.g., corporations, school districts, government) have also begun to focus on building strengths, instead of trying to improve weak areas that may already be at their highest potential in an individual (Rath, 2007). Adults are learning to understand that the how of their survival of traumatic childhoods may be a personal strength. By learning their strengths, they recognize their resilience and are able to move beyond childhood obstacles. Building on strengths challenges an individual to go to higher levels with a sense of confidence that focusing on deficiencies does not provide (Wolin & Wolin, 1993).

Measurement

Early research often identified resilience as a by-product of research in other areas of human development. The researcher looked at protective factors and survivability in difficult situations with a retrospective viewpoint (Garmezy, Masten, & Tellegren, 1984; Werner & Smith, 1982, 1992, 2001). The next generation of researchers began studying the root of resilience and needed methods to measure it.
Rak and Patterson (1996) recognized the need for assessment tools and intervention strategies focused on protective factors in order to enhance resilience levels. Also needed was a method to identify who would most benefit from support services. With this in mind, they created an informal 25-item Resiliency Questionnaire designed for 6- to 12-year-olds and adolescents. The questions are open-ended, with the intent of the clinician being able to follow up and determine if services will be appropriate. The instrument was designed to be used during an initial assessment and is limited in large-scale administration (Rak & Patterson, 1996).

Recognizing the fluctuation and variety of skills and attitudes involved in resilience, measuring resilience levels is not a straightforward process. Other researchers also understood the need for assessment tools to aid in service provision. As with all measurement tools, some resilience scales are better than others, but no single one has been identified as the seminal instrument to use in evaluating resilience for adolescents (Ahern, Kiehl, Sole, and Byers, 2006).

Ahern, Kiehl, Sole, and Byers conducted a comparison of six instruments to measure adolescent resilience in 2006. The instruments were Baruth Protective Factors Inventory (BPFI), Connor-Davidson Resilience Scale (CD-RISC), Resilience Scale for Adults (RSA), Adolescent Resilience Scale (ARS), Brief-Resilient Coping Scale (BRCS), and Resilience Scale (RS). Some of the items addressed in their review were psychometric properties, study results, instrument advantages and disadvantages, possible uses for each instrument, and a final rating for use with adolescents.

Both the BPFI and BRCS did not have acceptable validity for use with adolescent resilience studies. Reliability and validity of the BPFI required more research. In
addition, the instrument findings were ungeneralizable for age or ethnicity. An advantage of the scale was the use of reversed score items. The BRCS was suggested as possibly being useful in identifying individuals who may benefit from assistance; it is limited due to being a four-item scale with minimal reliability (Ahern et al., 2006).

The CD-RISC, RSA, and ARS were all rated as “may be acceptable” for use with adolescents. Due to limited use, reliability and validity of the instrument when used with adolescents requires further research. The CD-RISC development was based on stress, coping, and adaption research. The scale of this instrument indicated the ability to enhance resilience with encouragement. The RSA was shown to have good construct, but a disadvantage was the limitation of findings generalizable to adult Norwegians. In turn, the ARS was only generalizable to Japanese adolescents. A strength of ARS was it supported the idea of adolescent resilience (Ahern et al., 2006).

Of the six instruments reviewed, the authors rated only the Resilience Scale a “3” indicating acceptable validity to study adolescent resilience due to both psychometric properties and previous use with a variety of ages including adolescents. Researchers used the RS with a variety of ages, ethnicities, and both genders. Multiple study results support the instrument as able to measure resilience. A limitation is the lack of reverse items (Ahern et al., 2006).

Other instruments have been developed but with limitations of use. Resilience Scale for Adolescents (READ) was developed based on the Resilience Scale for Adults (RSA). While the READ appeared to be a valid instrument for measurement of resilience in adolescents, it was limited to generalizability. The RSA has been tested only with Norwegian adults and cannot be generalized outside of the country, which
limits the both RSA and READ (Hjemdal, Friborg, Stiles, Martinussen, & Rosenvinge, 2006). Nan Henderson (2007b) developed the Resiliency Quiz, a self-administered six-item quiz to identify external factors, list of internal resiliency qualities, and suggestions for enhancing resilience. Researcher have not statistically proven it to be a valid measurement tool for research, though it is a useful practical assessment tool for individuals to gain a greater awareness of their own resiliencies.

Adolescents

Adolescence is a time of great change, a decade-long journey from childhood to adulthood. Bodies change, brains continue to develop, and expectations of improved social and emotional competency are considered part of the passage. How an individual succeeds on this journey may be related to their level of resilience. Belief in themselves and developing more of an internal locus of control than the external locus of control of their childhood are significant parts of the journey.

Adolescent Development

The period of life known as adolescence is one of continued growth. The adolescent not only experiences physical growth but also psychological growth. Piaget referred to the time of adolescence as the formal operational stage. Adolescents are developing the ability to think beyond the black and white of situations. They consider possibilities and think of realistic solutions when solving problems. Using personal reflection and logic, adolescents become more abstract-minded (Berk, 2004; Geldard & Geldard, 1999).

During this second decade of life, the adolescent forms their personal identity. They begin to separate more from their family and create new relationships with peers.
and other adults in their life. It is a unique balance between establishing individualization and creating relationships within their community (Geldard & Geldard, 1999; Kazdin, 1993).

As part of this individualization, society anticipates adolescents fulfill their expected roles in society. Havighurst (1972) identified several tasks that he considered necessary for adaptive adolescents to master in order to obtain achievement of identity. Developmental goals are a process, an evolution occurring over time. Achieving developmental goals is part of the journey to the next level of development in the lifespan with the individual being an active participant (Havighurst, 1972; Heckhausen, Wrosch, & Schulz, 2010).

Havighurst originally wrote regarding adolescent development tasks in 1948 for classes he taught at the University of Chicago. With many reprints and review of new research, he updated his work in 1972. Upon first reading, the 1972 work appeared dated with archaic phrases. Upon further review and looking at the basis of each task, Havighurst’s developmental tasks continue to be relevant, with the exception of earlier onset of puberty for females slightly influencing the time frame of achieving tasks (Havighurst, 1972; Seiffge-Krenke & Gelhar, 2008; Seiffge-Krenke, Kiuru, & Nurmi, 2010).

The developmental tasks identified by Havighurst (1972) are

- Establishment of new, mature peer relationships including both genders
- Acceptance of gender role
- Acceptance of physical body
- Development of emotional independence from parents/guardians
• Preparation for long term relationships/families
• Preparation for a career
• Establishing values and ethics as a behavioral guide
• Desiring and achieving socially responsible behaviors

Keep in mind that adolescents need to develop these skills within the expectations of their overall society. Lack of achievement of these goals, in either personal opinion or societal opinion, may lead to maladaptive behaviors (Andersson et al., 2010; Havighurst, 1972; Geldard & Geldard, 1999).

As adolescents successfully move through developmental tasks, often despite unhealthy environments and high exposure to risks, their success may be due to resilience. Some researchers consider meeting cultural age tasks a representation of resilience; others believe low levels of symptoms are signs of resilience. Adolescents’ ability to develop resilience is an attainable skill. Masten (2001) reported the development of resilience is quite ordinary, a part of adaptation resulting from experiencing adverse situations.

**Obstacles to Developmental Well-Being**

Mastering developmental tasks is the goal, but not always the reality of adolescents. While trying to achieve Havighurst’s developmental tasks some adolescents will face a variety of difficulties. Difficulties can occur because of changing schools, trying new activities (some of which may be more risky than the adolescent is used to experiencing), or preparing to move away from home (Kazdin, 1993).

Adolescents may experience body image issues related to early or late onset of puberty, leading to feelings of shame, inferiority or low self-esteem. Other adolescents
may relate to opposite-sex gender roles or sexual interest in same-sex peers, possibly creating feelings of confusion or guilt. Failure to bond with adaptive peers or family members may lead to new relationships with deviant peers (Andersson et al., 2010; Havighurst, 1972; Kazdin, 1993; Kinnumen, Laukkanen, Kiviniemi, & Kylma, 2010).

The nature and short-term likelihood of early romantic relationships may lead to anxiety or depression. Family enmeshment, or lack of structure, may lead to difficulty in developing individualization and a lack of role models for ethical and behavioral-appropriate decision-making skills. With the previous difficulties, adolescents may have academic shortcomings and uncertainty identifying personal interests. Any of the previous conditions, individually or in combination, may affect adolescent development leading to low self-esteem, depression, anxiety, or other mental health concerns (Havighurst, 1972; Kazdin, 1993).

A lack of obstacles does not mean an individual has well-being. Individuals also need to have both personal and interpersonal strengths that allow them to function at their peak. Obstacles adolescents face occur in everyday situations and how they handle them determines level of functioning. An adolescent’s home, community, and school environments all have potential to be a source of help or hindrance (Davis, Lueckers, & Lemery-Chaliart, 2009; Kazdin, 1993).

As adolescents struggle with developing into unique individuals, they reach out in many ways to help themselves but often endanger themselves instead. Coping mechanisms may be poor and peer influence questionable. Some adolescents use drug experimentation to gain popularity, but it can develop into abuse or addiction. Drug abuse is common among adolescents (Kazdin, 1993). Early sexual activity, in order to
gain affection from a partner, may be followed by feelings of rejection, pregnancy, or sexually transmitted diseases. Each experience can lead to reduced self-esteem and increased mental health issues (Kazdin, 1993; Rutter, 1985).

Researchers indicated extreme cases of hopelessness, low self-esteem, feelings of rejection, and drug addiction may result in suicide attempts. The risk of suicide completion increased with the onset of adolescence and continued throughout the lifespan. Suicide attempts rose with adolescence and declined beginning in early adulthood. Adolescents’ most common explanations for a suicide attempt were the break-up of a romantic relationship, parental conflict, and school failure (Hetrick, Parker, Robinson, Hall, & Vance, 2012; Kazdin, 1993; Malone et al., 2000). Adolescents with higher resilience were less likely to choose suicide as a solution to distress. They were able to seek out peers and other supports to work through issues (Malone et al., 2000; Roy, Sarchiapone, & Carli, 2007).

Teen mothers face many difficulties often related to lower education levels and unemployment. Many have faced physical and sexual abuse as adolescents. Resilience was identified in teen mothers who are successful in providing a healthy environment for themselves and their children. With a sense of determination, optimism, and perseverance, adolescent mothers face difficulties with the strength to overcome them and provide for their children (Black & Ford-Gilboe, 2004).

Adolescents also deal with the issue of homelessness. Some experience it with their families and are included statistically with the homeless population. This comes with economic concerns and hardships (Donnellan, Conger, McAdams, & Neppi, 2009). Other adolescents leave the family and are called runaways. Runaways give a variety of
reasons for leaving home, often-naming conflict with their parents over the choices they are making (e.g., friends, drugs, sexuality). Runaways report their action as self-protection. Other adolescents are told to leave their homes by a parent or guardian and are referred to as “throwaways”. They, too, face the problems of the runaway, but because their parents/guardians told them to leave, returning to the home environment is not a possibility (Hunter & Chandler, 1999; Kazdin, 1993; Rew et al., 2001).

Adolescents also face emotional, physical, and sexual abuse in their lives. Some are victims or observers of domestic violence. Others live in a world of constantly changing family constellations – divorce, death, stepparent, imprisonment of a parent, or grandparents parenting them. Changing economic conditions or low socioeconomic levels also influence adolescent development (Davis et al., 2009; Farbstein et al., 2010; Kazdin, 1993; Rutter, 1985).

Adolescent health (e.g., eating habits, activity levels, and smoking) was identified in relationship to depression and levels of support. With increasing rates of obesity, health concerns are another obstacle. Females reported higher levels of depression and inactivity. Researcher found depression related to smoking levels. Parental supervision and role model involvement positively influence and reduce adolescent risk-taking behaviors (Farbstein et al., 2010; Mistry et al., 2009; Robinson et al., 2011).

To describe obstacles faced by adolescents in achieving individuation and accomplishing developmental tasks is an ongoing process. Adolescents face challenges that some overcome while others succumb to the obstacle. Self-esteem diminishes, education and career development falls to the side, and adolescents face difficulty in
finding a way to healthy adulthood. Society has the challenge to help adolescents grow or to fix the adults they become (Kinnunen, Laukkanen, Kiviniemi, & Kylma, 2010).

Facilitative Environment

Home and school are where adolescents spend the majority of time. Whereas parental influence is considered the primary protective factor and foundation of resilience, it is not the only source of support for adolescents. Resilient adolescents have a variety of non-family mentors who provide additional support in difficult situations. Supportive and caring role models from the community (schools in particular) can provide the additional encouragement needed to develop healthy individuals. A facilitative environment has the ability to provide supportive relationships, informal support sources, and social support during difficult times (Garmezy, 1971; Hurd & Zimmerman, 2010; Maddi & Khoshaba, 1994; Rak & Patterson, 1996; Walker, 2010; Werner & Smith, 1977, 1982, 1992).

Supportive Services

The school setting provides an opportune time to provide positive experiences that develop personal strength, coping skills, and enhanced resilience. School counselors have generally operated from a health perspective with students, identifying strengths, focusing on them, and creating an environment in congruence with resilience enhancement (Rak & Patterson, 1996). Kazdin (1993) reported that school dropout rates and substance abuse rates reduced due to school-based interventions designed specifically for adolescents. The broad-based programs covering several at-risk areas appeared more successful due to the co-occurrence of obstacles faced by adolescents.
Schools also have the opportunity to bring together teachers, parents, and community members in order to provide a multi-faceted approach to addressing adolescent issues. There is the opportunity to address unique cultural concerns and community needs. Including adolescents and their peers in the process will allow them to develop problem-solving skills, social responsiveness, and enhanced self-efficacy (Brown, D., 2008; Masten, Best, & Garmezy, 1990; Roy et al., 2007).

Programs can provide in-the-moment support for adolescents as they face situations where their common sense and logic have not yet developed fully (Kazdin, 1993). Additionally, long-term, interactive opportunities reinforce and enhance what adolescents learn and provide a foundation for self-esteem (Rutter, 1985). Providing services in a familiar setting also aids in receptiveness of the information being offered (Walker, 2010).

A combination of large programs addressing issues related to the majority of adolescents, focused on pressure to join in risky behaviors (e.g., unprotected sex, experimenting with hard drugs, drinking while driving), and smaller targeted interventions appeared to provide the best opportunity for adolescents. The smaller, targeted programs focused on adolescents at high risk with no current signs of dysfunction, early signs of dysfunction, or those referred due to current dysfunction (APA, 2011a; Brown, J., 2001; Gonzales et al., 2012; Kazdin, 1993; Vetter et al., 2010).

Individual staff interactions with students can be turning points, building on the important positive resilience factor of non-familial support. School personnel established resilience-building environments by setting consistent, understandable boundaries, developing relationships that are both caring and supportive, and teaching life skills
while building high expectations, and having adolescents be active participants in meaningful experiences (Henderson, 2003). Librarians were a prime example. By providing a safe environment and remembering names and reading interests, they offered adolescents reassurance of their significance. Researchers recognize resilient children as readers. Librarians provided extra incentives, book clubs, special programs, contests, and prizes to encourage reading, visiting the library, and acknowledging achievements. Adult survivors of difficult childhoods have reported the library was the place they could escape to and feel safe (Jones, 2003; Wolin & Wolin, 1993).

**Elective Courses**

Elective courses provide students opportunity to explore interests and develop skills beyond their core coursework. In some school settings, these courses are called extracurricular activities. Research indicated participation intensity and duration were related to increased individual motivation. Simply looking at participation was not a complete picture. Students involved at younger ages were more likely to continue with an interest. Academic results and personal beliefs appeared higher with those involved. A cautionary note, identified in the research was high levels of experimental behaviors among students with high levels of participation, especially when adult supervision was limited. Research did not indicate if participation lead to risky behaviors or a sense of risk leads to participation in more difficult extracurricular activities (Ersing, 2009; Farb & Matjasko, 2012; Simpkins, Vest, & Becnal, 2010).

In addition to focused, risk-reduction programs, extracurricular activities have been shown to enhance adolescent development (Ersing, 2009). Fredricks and Eccles (2008) conducted a longitudinal study of 1,047 adolescents during 8th and 11th grades,
looking at participation in school clubs, school sports teams, and out-of-school recreational activities in correlation to adjustment. The sample was 67% African American and 33% European American, with 51% female and 49% male.

The researchers noted participation in 8th grade clubs/electives was positively related to academic adjustment, psychological adjustment, prosocial peers, and lower than anticipated devaluation of school in 11th grade. Psychological adjustment, identified as self-esteem, psychological resiliency, and lack of depression, was measured with Harter’s Global Self-Worth scale, a modified scale of Furstenberg’s resilience measure, and the Children’s Depressive Inventory. Participation in school sports was related to lower school value and higher risky behavior, possibly a result of peer pressure related to the activity. Adolescents who participated in athletics showed higher development of initiative but higher levels of stress. Involvement in school clubs appeared to be more closely related to identity development (Fredricks & Eccles, 2008; Gilligan, 2000).

Unfortunately, some within the child and adolescent mental health research community still consider difficulties adolescents face as a ‘disease.’ This approach looks at adolescent issues within the adolescent and not part of our greater society. Without addressing this misunderstanding, we will have difficulty providing needed assistance to bring our adolescents into healthy adulthood (Bradley & Carter, 2011).
A majority of resilience studies focus on early intervention and identification of protective factors (Garmezy, 1971; Maddi & Khosaba, 1994; Werner et al., 1971; Werner & Smith, 1977, 1982, 1992; Wolin & Wolin, 1993). Research into the relationship between resilience and adolescent decision-making is limited. Within school course selection, students are required to take core classes but allowed to select their electives. Studies show people with higher resilience levels tend to make more socially appropriate choices and resolve difficulties in a healthier manner. By identifying patterns of resilience within subgroups of eighth grade students, school administrators may have another method for identifying students who require additional resources to enhance resilience. Enhanced resilience may help them make choices leading to academic and social success.

This study compared students’ Resilience Scale scores based on: gender, ethnicity, enrollment in either athletics or physical education, and who selected the course (student, parent, teacher, counselor, or unknown). This researcher gathered and reviewed data for additional elective courses but overlapping enrollment diminished any results identified. Physical education and athletics are an either/or course selection, allowing comparison of resilience scores and are not considered overlapping. Topics addressed within the methods and procedures section were the research question, research assumptions, definition of terms, participant selection, instrument, procedures, data collection, and data analysis.
Research Question

1. Is there a difference in adolescent resilience among eighth grade students?

Research Null Hypothesis

1. There will be no difference in resilience scores between genders.
2. There will be no difference in resilience scores between ethnicities.
3. Students participating in athletics will not have significantly higher resilience scores than non-participants.
4. Students selecting their course will not have significantly higher resilience scores than other selectors.

Definitions of Terms

For the purposes of this study, the following terms are operationally defined:


Scores are divided into moderately high to high (145 and above), moderately low to moderate (116 – 144), and very low resilience (115 and below) resilience.

Elective course: any course that is not considered a required core course. Core courses are math, English/reading, science, and social studies.
Course selection: who chooses elective courses: student, parent, teacher, counselor, or student is unaware of who selected elective course.

Athletics: students enrolled in tennis (class conducted at local high school), cheerleading (for credit), external physical education (requires district approval and is for highly competitive national/international level training), and students enrolled in sports (school based teams and training). Students in athletics are not always on a team, some may be considered “off-season” the entire semester and participate in strength building workouts with students who were on an earlier/later season team.

Participant Selection

The University Internal Review Board granted approval for human subject research prior to the start of this study. The school district’s associate superintendent for learning and teaching approved the overall study (Appendix A) with campus approval delegated to the middle school principals. Of the 15 middle-school principals within the district, 6 principals agreed to have their campuses participate.

The school district was a 51,000+-student public school district located in a suburban area in the southwest United States. Student ethnicity for the entire district was African American/Black 8.8%, Asian 8.0%, Hispanic 18.9%, Native American 0.8%, Pacific Islander 0.8%, White/Caucasian 60.4%, and multi-racial 3.0%. Other demographic information reported regarding district students was 26.7% of the students were economically disadvantaged, 12.8% had limited English proficiency, 1.4% had
disciplinary placements, and 24.5% were identified “At-Risk” (Academic Excellence Indicator System, 2012).

The district “At-Risk”, used for AEIS data for middle school purposes was determined based on the following criteria (D. Tickner, personal communication, May 21, 2012):

- Is in Grade 7, or 8 and did not maintain an average equivalent to 70 on a scale of 100 in two or more subjects in the foundation curriculum during a semester in the preceding or current school year or is not maintaining such an average in two or more subjects in the foundation curriculum in the current semester
- Did not perform satisfactorily on an assessment instrument administered to the student under TEC Subchapter 8, Chapter 39, and who has not in the previous or current school year subsequently performed on that instrument or another appropriate instrument at a level equal to at least 110 percent of the level of satisfactory performance on that instrument
- Is pregnant or is a parent
- Has been placed in an alternative education program in accordance with TEC §37.006 during the preceding or current school year
- Has been expelled in accordance with TEC §37.007 during the preceding or current school year
- Is currently on parole, probation, deferred prosecution, or other conditional release
• Was previously reported through the Public Education Information Management System to have dropped out of school
• Is a student of limited English proficiency, as defined by TEC §29.052
• Is in the custody or care of the Department of Protective and Regulatory Services or has, during the current school year, been referred to the department by a school official, officer of the juvenile court, or law enforcement official
• Resided in the preceding school year or resides in the current school year in a residential placement facility in the district, including a detention facility, substance abuse treatment facility, emergency shelter, psychiatric hospital, halfway house, or foster group home
• Was not advanced from one grade level to the next for one or more school years
• Is homeless, as defined by 42 U.S.C. Section 11302, and its sub-sequent amendments

Each year, the campus counselors compile the list, code students as “at-risk” in the database, and campus administration is accountable for appropriate progress of these students.

For this study, I sent parental informed consent forms (Appendix B) and cover letter, emphasizing student participation was voluntary and not a district requirement, with the first progress report of the school year. Students eligible for participation had enrolled in the eighth grade prior to the end of the first progress report in the 2012/13 fall semester. Three of the participating campuses had a mobility rate of 8.5% or higher,
requiring a cut-off date for participation (AEIS, 2012). Students enrolled in the Academic Vocational Life Skills (AVLS) and Academic Life Skills (ALS) classes were not eligible to participate due to lower-than sixth-grade reading levels.

Only students with signed parental informed consent forms participated in the study. Of the 1,590 eighth grade students enrolled, as reported by the six campus principals, 203 students returned signed forms. One form did not have student name or identification number, reducing eligible students to 202, allowing 12.7% of eligible students to participate. Administration of the survey occurred on six separate days, one day per campus. On administration day, two students declined to participate, two students stopped participating early in the survey (one notified the administrator of the stop), and eight students were unavailable due to absence or another commitment. Final survey participation was 190 students, an 11.9% participation rate of eligible students.

Of the 190 participating students, 83 (43.7%) were male and 107 (56.3%) were female. The age range was 12.9 to 15.4 with a mean age of 13.8, consistent with appropriate eighth-grade age range. Ethnicity reported by the 190 participants included 5.8% African American/Black, 11.1% Asian, 12.6% Hispanic, 1.1% Native American, 1.6% Pacific Islander, 59.5% White/Caucasian, and 8.4% reported two or more races. No student was eliminated due to ethnicity. As shown in Table 1, comparison of reported ethnicity with AEIS data indicated a lower participation rate by African-American and Hispanic students then the district enrollment would indicate. Offset by a higher rate of students identifying as multi-racial. Ethnicity rates from the AEIS report
were combined for sixth, seventh, and eighth grades and based on the previous school year. Ethnicity labels/groupings were based on AEIS reporting.

Table 1

*Ethnicity Participation compared to District Population*

<table>
<thead>
<tr>
<th></th>
<th>Study</th>
<th>District</th>
<th>Mid Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American/Black</td>
<td>5.8</td>
<td>8.8</td>
<td>8.8</td>
</tr>
<tr>
<td>Asian</td>
<td>11.1</td>
<td>8.0</td>
<td>10.6</td>
</tr>
<tr>
<td>Hispanic</td>
<td>12.6</td>
<td>18.9</td>
<td>24.0</td>
</tr>
<tr>
<td>Native American</td>
<td>1.1</td>
<td>0.8</td>
<td>0.6</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>1.6</td>
<td>0.8</td>
<td>0.1</td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>59.5</td>
<td>60.4</td>
<td>53.2</td>
</tr>
<tr>
<td>Two or more races</td>
<td>8.4</td>
<td>3.0</td>
<td>2.7</td>
</tr>
</tbody>
</table>

*Instrumentation*

The Resilience Scale (Wagnild & Young, 1993) was used for the quantitative measure of this study. The Resilience Scale (RS) is a 25-item 7-point Likert scale, with 1 being *strongly disagree* and 7 *strongly agree*. The instrument was written at the sixth grade reading level and designed for self-administration. I entered the Resilience Scale into Qualtrics for ease of administration and reduction of data entry errors. Qualtrics is an online survey software licensed by the university for student use, without cost to the university student.

The items were entered in the same order as the hard-copy document with only one scale choice allowed per item. The Resilience Scale has internal consistency reliability with Cronbach’s alpha coefficients from 0.85 to 0.94 (Wagnild, 2011). Concurrent validity of the Resilience Scale was shown with valid measures of constructs.
of resilience and life satisfaction $r = .30$, morale $r = .28$, and health $r = -.26$. Divergent validity of the Resilience Scale was shown with valid measures of constructs of resilience and depression $r = -.37$ (Ahern et al., 2006). For this study, Cronbach’s alpha was 0.91. Review of the item-total statistics indicated all 25 items should remain. All items remained for the purpose of this study.

The Resilience Scale authors used the total score (from 25 to 175) to determine level of resilience, with higher scores indicating higher resilience. Per Wagnild (2011), the interpretation of the RS scores are as follows: 145 and above = moderately high to high resilience, 116 – 144 = moderately low to moderate resilience, 115 and below = very low resilience. Scoring of the RS was straightforward. All statements on the RS were positively written and did not require reversals or transformations.

Within those interpretations, Wagnild (2011) addressed the categories with findings of some mental health and life functioning difficulties reported by individuals who ranked themselves within the three category ranges. Previous study respondents with scores in the high range reported little to no depression or anxiety and had a balanced view of life and considered being reliable and resourceful. Moderate range scorers reported general satisfaction with life but a need to improve areas. They could see opportunity but often focused on the missed opportunities. The RS respondents in the very low range had higher reported feelings of depression and anxiety with a feeling of being overwhelmed (Wagnild, 2011).

A demographics questionnaire (Appendix C) followed the RS statements. Students identified current electives and who selected the course (student, parent/guardian, a teacher/counselor, or if they did not know who selected the class).
Students also recorded items such as birth date, gender, and campus attended. The first elective choice listed was “athletics, tennis, cheerleading (graded course only), external physical education, physical education, outdoor education (full year course), and not required to take physical education.” The next blocks related to fine arts, technology, high school credit/advanced placement, career, academic remediation, student aide, and study hall courses. Students saw courses from all six campuses in the study, not their campus only.

Procedures

Particular to this research, the school district’s Associate Superintendent for Learning and Teaching approved the survey with the condition it was administered during elective courses. Principal agreement determined campus participation. All 15 middle school principals were contacted via email. After discussion, six principals agreed to participate in the research. Conditions of research approval were one-time request of parental consent, limited campus staff involvement, survey completion prior to district-wide Gallup poll survey, and researcher administration of survey. The survey administration met all conditions.

Two copies of a parental informed consent form (Appendix B), and a cover letter explaining the study was not a district requirement for their child, were sent home with the three-week progress report during the fourth week of school. Forms were in English. For two campuses that provide all forms to parents in both English and Spanish, Spanish copies were also provided. The forms were not attached to the progress report. District-required forms are usually attached to progress or grade reports to increase the return rate. Signed parental consent forms were returned with signed progress reports.
Upon receipt, campus staff gathered the informed consents and filed them for researcher to pick up from the main office later.

One campus, a bi-lingual campus, chose not to send the parental consent form home with the progress reports. Campus personnel told students of the research project during history class. Students were encouraged to pick up a form and participate. Forms were not sent home with all eighth grade students at that campus, only those who requested a form in class.

Prior to a student using district technology, students submit a parent and student signed technology agreement to their campus. This applies to any use of district technology including classroom use. Campuses did not identify any students as ineligible for technology usage. All students were familiar with their campus computer lab and logging onto the computer with their campus identification information.

Administration of the survey was flexible based on campus-by-campus needs. One campus runs a six-period schedule with electives grouped into two periods per day. Several campuses utilize an eight-period schedule, with two days as block schedules. Block-schedule days alternate between even and odd class periods with an extended period utilized as a study hall. The majority of students took the survey during “block” time. The remainder of students was selected from study hall, student aide, or a non-high-school credit elective course. Campus principals approved survey administration times for each student prior to testing days. Students received hall passes at the start of class on the day of survey administration.

Survey administration occurred on campuses in established computer labs. This researcher supervised students during taking of the survey. At the larger participation
site, a district-employed colleague of the researcher assisted in administration supervision. Block time on that campus allowed over 40 students to participate at one time, requiring use of two computer labs. At each campus, brief instructions were read to the students: reminder of parental informed consent, how to log onto the survey site, review of student assent form (Appendix D), reminder to students to go with their first answer, reassurance there were no right or wrong answers, and what the student should do when finished.

When the student logged into the survey site, they saw a screen requesting their assent to participate in the survey (Appendix D). Students were required to enter their student identification number whether they agreed or declined to take the survey. There were no consequences for not taking the survey. I used student identification numbers to reconfirm parent consent prior to any use of data, after which identification numbers were removed.

The school district teaching model is in the direction of collaborative learning. Students were encouraged to help each other and ask questions as needed. During administration, students assisted each other logging onto the survey site, asked purpose of study, and asked the meaning of the following words: resilient, dwell, stride, and seldom wonder. Not all students asked for meanings but each campus had requests for these words. Students worked at a self-pace and returned to class upon completion. Students received a snack of non-nutritional value and a novelty design pencil for attending; participation was not a requirement to receive a thank-you item.
Data Collection

This study was a one-time survey, using a convenience sample of available eighth grade students enrolled in the district at the time of the study. The Resilience Scale and demographics questionnaire were administered using Qualtrics. Data collection occurred during the second six-week grading period of the school district’s calendar.

Identified students, who acknowledged assent, answered the 25-item RS plus demographics items during an elective course agreed to by campus administration. Students asked for clarification of terms they did not understand or help with the survey site if their data was not accepted. Each student finished in less than 30 minutes, including log on and direction time.

To ensure confidentiality of data collected, I accepted the randomly assigned Qualtrics identification number for each participant and removed student identification numbers. After survey completion, parental consent forms were maintained in a secured area accessible only to the researcher. Data was taken from Qualtrics and analyzed using IBM SPSS version 21.

Data Analysis

To analysis data, I used descriptive statistics and ANOVAs (Fink, 2006; Greasley, 2008, Pallant, 2005). In order to confirm the research assumptions and hypotheses, multiple ANOVA were conducted to review comparison of students based on gender, ethnicity, and various electives. In addition, ANOVAs for gender within ethnicity were conducted. Elective courses were reviewed and students in athletics were compared with students in physical education for difference in resilience means.
An analysis of person making athletics/physical education course selection (student, parent, teacher/counselor, or unknown) also occurred. Additional analyses of students in other electives were reviewed. However due to the crossover of electives, non-exclusivity, results were not valid. The crossover limited identifying an elective, other than physical education or athletics, with a resilience score. Elective course offering were inconsistent among campuses.
CHAPTER 4

RESULTS

The purpose of this study was to determine if a difference existed in adolescent resilience levels based upon subpopulations and elective courses taken during eighth grade. Results are based on gender, ethnicity, gender within ethnicity, and athletics/physical education courses. Results of the analysis of variance (ANOVA) between groups and descriptive analyses address each category.

Preliminary research, prior to this research, indicated all students in eighth grade are required to participate in a graded physical activity course. Students choose whether to be in athletics or not. Another requirement was all middle school students must have a fine art credit. This information indicated students would have one additional elective course on their schedule. Consultation occurred with counselors from two of the campuses participating in this study prior to knowledge that the campuses would be part of the study.

Due to the differing bell schedules from campus to campus (six to eight class periods, with or without study hall, “block” even/odd period days) students had one or two electives in addition to the physical education/athletics requirement. Six students had a third elective on their schedule caused by their external physical education exemption. Further clarification indicated students could receive their fine arts credit any time during middle school, not just in eighth grade. Students could take more than one fine arts course or none if they participated during an earlier grade.

Another component of the elective course discussion is the actual courses offered. Campuses with higher overall enrollment offer more elective courses. Based on
the student/teacher ratio those campuses are able to employ more highly qualified teachers in a larger variety of elective subjects. An example of this difference is one of the smaller campuses offers only one high school credit elective, Spanish, while one of the high enrollment campuses offers five high school credit elective courses. At some schools, students could be enrolled in more than one elective, confounding statistical analysis. Due to excessive crossover of elective courses taken, only athletics/physical education electives were analyzed. Students are required to enroll in an athletics course or physical education; there is no crossover in enrollment. Of note, band does not fulfill the state-required physical education credit for middle school students as it does for high school students.

Demographics

To establish a foundation of the resilience levels reviewed by electives, an overall resilience level was established. The majority of participants, regardless of gender, indicated a moderate resilience score, mean = 136.72. The results of the Kolmogorov-Smirnove statistic indicated the distribution of scores met the assumption of normality.

Review for outliers occurred and one case appeared to be an extreme point. Review of the case indicated the score was consistent with the student’s overall answers. In addition to the 25 items on the Resilience Scale, an additional statement is listed “I am resilient” but not included in the total. This item answer, for the outlier case, was consistent with scoring for the other 25 items. Based on the consistency, I did not remove this case from the study.
Gender

To test for gender differences, a one-way analysis of variance (ANOVA) was conducted. The Levene’s test for homogeneity of variances was .686, indicating the equal variances for the two groups may be assumed. The one-way ANOVA data (see Table 2) did not indicate a statistically significant difference between genders ($p = .103$).

Table 2
One-way Analysis of Variance for Gender

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>Mean Sq</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1069.53</td>
<td>1</td>
<td>1069.53</td>
<td>2.68</td>
<td>.103</td>
</tr>
<tr>
<td>Within Groups</td>
<td>75053.12</td>
<td>188</td>
<td>399.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>76122.65</td>
<td>189</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Review of RS scores and means by gender indicated 68% of students reported moderate resilience levels. As indicated in Table 3, female scores trended to the moderate and very low ranges, with males more evenly dispersed. These differences are not statistically significant.

Table 3
Gender Mean Comparison

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>&lt;= 115</th>
<th>Moderate</th>
<th>=&gt;145</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>107</td>
<td>134.63</td>
<td>20.19</td>
<td>24</td>
<td>76</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>83</td>
<td>139.41</td>
<td>19.71</td>
<td>15</td>
<td>53</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>190</td>
<td>136.72</td>
<td>20.07</td>
<td>39</td>
<td>129</td>
<td>22</td>
</tr>
</tbody>
</table>

48
Ethnicity

Review of the between-groups significance for ethnicity indicated there was not a significant statistical difference based on ethnicity (Table 4). Students reported their ethnicity based on groups identified in AEIS.

Table 4

One-way Analysis of Variance for Ethnicity

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>Mean Sq</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1727.77</td>
<td>6</td>
<td>287.96</td>
<td>0.71</td>
</tr>
<tr>
<td>Within Groups</td>
<td>74394.88</td>
<td>183</td>
<td>406.52</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>76122.65</td>
<td>189</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Review of RS scores and means by ethnicity indicated 68% of students reported moderate resilience levels. As indicated in Table 5, Asian student scores trended to the moderate and very low ranges. Caucasian students had 71% reporting moderate resilience scores. The differences in scoring ranges by ethnicity are not statistically significant.
Table 5

*Ethnicity Mean Comparison*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>&lt;= 115</th>
<th>Moderate</th>
<th>=&gt; 145</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American/Black</td>
<td>11</td>
<td>139.09</td>
<td>21.50</td>
<td>2</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Asian</td>
<td>21</td>
<td>131.90</td>
<td>20.26</td>
<td>8</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>24</td>
<td>132.96</td>
<td>20.37</td>
<td>6</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>113</td>
<td>138.70</td>
<td>19.66</td>
<td>19</td>
<td>80</td>
<td>14</td>
</tr>
<tr>
<td>Native American</td>
<td>2</td>
<td>137.50</td>
<td>00.71</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>3</td>
<td>126.00</td>
<td>06.56</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Two or more races</td>
<td>16</td>
<td>134.94</td>
<td>24.08</td>
<td>3</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>190</td>
<td>136.72</td>
<td>20.07</td>
<td>39</td>
<td>129</td>
<td>22</td>
</tr>
</tbody>
</table>

*Gender within Ethnicity*

Further review by gender within ethnic groups was conducted. Means by gender within ethnicity (Table 6) are all in the moderate range. Multi-racial students reported the same resilience mean regardless of gender. ANOVAs of African American, Asian, and Hispanic students did not show a significant difference in resilience means by gender. Only the Caucasian student ANOVA for gender differences had a statistical significant difference.
Table 6  
*MMeans by Gender within Ethnicities*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Male (n)</th>
<th>Female (n)</th>
<th>Total (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American/Black</td>
<td>137.00</td>
<td>142.75</td>
<td>139.09</td>
</tr>
<tr>
<td>Asian</td>
<td>137.93</td>
<td>119.86</td>
<td>131.90</td>
</tr>
<tr>
<td>Hispanic</td>
<td>130.75</td>
<td>135.17</td>
<td>132.95</td>
</tr>
<tr>
<td>Native American</td>
<td>00.00</td>
<td>137.50</td>
<td>137.50</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>120.00</td>
<td>129.00</td>
<td>126.00</td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>143.77</td>
<td>135.59</td>
<td>138.70</td>
</tr>
<tr>
<td>Two or more races</td>
<td>135.00</td>
<td>134.90</td>
<td>134.94</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>139.41</td>
<td>134.63</td>
<td>136.72</td>
</tr>
</tbody>
</table>

As indicated in Table 7, gender differences within Caucasian students indicated a significant statistical difference ($p = .031$). Eta squared is 0.04, indicating an effect size in the small to medium range. Caucasian females reported a resilience mean of 135.59; their male counterparts reported 143.77. Both sets of scores are in the moderate range. The low number of participants in the other ethnic groupings may have limited the results within those ethnic groups.
Table 7

One-way Analysis of Variance for Gender within Caucasians

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>Mean Sq</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1783.11</td>
<td>1</td>
<td>1783.11</td>
<td>4.77</td>
<td>.031</td>
</tr>
<tr>
<td>Within Groups</td>
<td>41494.66</td>
<td>111</td>
<td>373.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>43277.77</td>
<td>112</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Elective Course and Selection

Athletics versus Physical Education/Outdoor Education

Middle school students are required to participate in a physical activity course each of the three school years. During seventh and eighth grade, students have the option of choosing to participate in athletics or physical education. At one campus in the study, students could choose to participate in a full year course known as Outdoor Education. Students enrolled in Outdoor Education were not in athletics, confirmed by review of course schedules. For the purposes of this study, students enrolled in Outdoor Education were grouped with Physical Education students.

Students grouped in athletics were enrolled in courses labeled as tennis (class conducted at local high school), cheerleading (for credit), external physical education (requires district approval and is for highly competitive national/international level training), and sports (school based teams and training). Students in sports are not always on a team. Team participation requires tryouts and not all students will qualify. When a student is not on a team, participation in “off-season” workouts is required. Some students may never be on a team and are considered “off-season” the entire
semester. These students participate in strength building workouts with students who were on an earlier/later season team.

Through analysis of the data, the Levene’s test for homogeneity of variances was .876, indicating the assumption was not violated. Analysis of students enrolled in athletics as compared to those who were not indicated the between-groups significance was \( p = .035 \) (see Table 8), indicating there was a significant statistical difference at the \( p < .05 \) level in resilience scores for students enrolled in athletics and those in other physical education courses. Eta squared is 0.02, indicating a low effect size.

Table 8

One-way Analysis of Variance for Athletics/Physical Education

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>Df</th>
<th>Mean Sq</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1785.34</td>
<td>1</td>
<td>1785.34</td>
<td>4.52</td>
<td>.035</td>
</tr>
<tr>
<td>Within Groups</td>
<td>74337.31</td>
<td>188</td>
<td>395.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>43277.77</td>
<td>189</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Review of resilience ranges (Table 9) indicated 16% of students enrolled in athletics reported resilience in the high range with only 1% of physical education students so reporting. As with other comparisons, the majority of students reported resilience scores in the moderate range regardless of athletic/physical education course enrollment.
**Table 9**

*Athletics and Non-athletics Mean Comparison*

<table>
<thead>
<tr>
<th></th>
<th>Very low</th>
<th></th>
<th></th>
<th></th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td>&lt;= 115</td>
<td>Moderate</td>
</tr>
<tr>
<td>Athletics</td>
<td>115</td>
<td>139.19</td>
<td>19.40</td>
<td>24</td>
<td>73</td>
</tr>
<tr>
<td>Non-athletics</td>
<td>75</td>
<td>132.92</td>
<td>20.61</td>
<td>15</td>
<td>56</td>
</tr>
</tbody>
</table>

Further analyses of athletics versus non-athletics by ethnicity and by gender were conducted. Neither of these ANOVAs indicated a statistically significant difference within either of the subgroups. Earlier ANOVAs indicated a difference between Caucasian students by gender. With this in mind, additional ANOVAs by gender within each ethnicity compared athletics and non-athletics. Results of these ANOVAs indicated no statistically significance difference occurred for any ethnicity.

**Course Selector**

As part of the survey, students reported who selected each course: student, parent, teacher, counselor, or the student did not know who selected the course. For all courses, students indicated they selected the course a significant majority of cases. The limited number of other selections limited analysis. For athletics and physical education course selection, this same pattern applied with the majority of students (85.8%) indicating they had selected the course.
This study began as a series of conversations with colleagues in the public school setting. Both general education and special education counselors identified the need to reach out proactively to help students be successful. The current method of failure reviews and truancy tracking identify students in need but puts staff and students in a catch-up mode. Elective teachers identified their courses as one of the few options some students have to identify their real interests. These two concepts lead to the idea of looking for resilience trends within the elective courses. If identification of a pattern occurred, the thought was to take another step and administer an experimental resilience enhancement program in a course with higher numbers of students reflecting lower resilience scores.

Schools provide a safe environment for children, even if for just the school day, from the stress-filled environments of their homes and communities. Providing extracurricular activities, library availability, vocational opportunities, and creative art experiences are all identified as strengtheners in an individual's resilience development. Caring peers/friends, teachers, and other supportive adults in the school setting are available to help students enhance their resilience.

Opportunities to participate and lead activities are available in both classroom activities and extracurricular school activities. Previous studies related to adolescent participation in outside activities reported higher levels of self-esteem and coping (Ersing, 2009; Fredrich & Eccles, 2008). Research has also indicated the meaningful experience of group activities, along with potential leadership opportunities, significantly
influencing adolescents’ resilience levels (Henderson, 2003; Jones, 2003; Wolin & Wolin, 1993).

Based upon these studies and personal experience, I hypothesized that students with similar levels of resilience, as measured by the Resilience Scale, would enroll in similar elective courses. I also hypothesized students would not differ on resilience based on either gender or ethnicity. This discussion section addresses three parts: outcomes and implications, limitations, and recommendations of current study.

Outcomes and Implications

Resilience scores for three components were analyzed to determine if significant differences in resilience occurred. I looked at gender, ethnicity, and enrollment in athletics versus physical education. Due to crossover enrollment in multiple electives, only the athletics/physical education variance was reviewed. After initial review, gender results by ethnicity were explored, as well as, athletics/physical education enrollment by gender within each ethnicity.

Student resilience scores were in the moderate range for the majority of participants. At the gender and ethnicity level, there were not significant differences within the groups. However, results indicate students enrolled in athletics showed a statistical difference with higher resilience scores from peers enrolled in physical education and outdoor education.

Students participating in athletics may benefit from the protective factors developed from the experience. Key components of team activities are supportive relationships, communication, and problem solving skills. Students enrolled in athletics, but not on a team, still develop skills related to the safety and supportive peer
interaction required of strength building exercises. The concept of working together, either on a team or during off-season activities, provides a level of informal support sources and helps students realize they are capable, what they did mattered, and they mattered to someone beyond themselves. Another aspect needing consideration is the school environment, which acknowledges sport as a significant achievement. The recognition of peers and adults for simply belonging to the select group may enhance students' belief in themselves.

With few physical education students reporting high resilience scores, students may benefit from additional resilience training components within the physical education curriculum. Helping students identify their support network, addressing personal strengths, and providing opportunities to be leaders may enhance resilience levels. Identifying lower resilience may be as simple as looking at the non-participants, the last in line, or the student not making eye contact.

After initial review at both the gender and ethnicity level, I analyzed resilience scores by gender within each ethnicity. A statistically significant resilience score difference occurred among Caucasian students. Female Caucasian students reported lower resilience scores from their male counterparts. Among the other ethnic groups, no significant differences were noted. This may be due to the lower number of participants in ethnic groups other than Caucasian. Further review indicated no significant difference existed for Caucasian females based on their enrollment in athletics or physical education.

Possible resilience training components added to elective courses with high Caucasian female enrollment, or female enrollment in general, could enhance resilience
attributes. By utilizing components of individual psychology, identifying levels of social interest, addressing gender equality, and enhancing sense of environmental membership, female students may become more resilient. Research indicates adolescent females develop mental health issues at a greater rate than their male counterparts. Identifying and enhancing resilience factors could develop the skills needed to offset some mental health issues.

As the final analysis, I compared selectors of physical education or athletics courses. Students indicated they made the majority of their elective decisions. While consultation with parents, teachers, or counselors may have occurred, students took responsibility for their decision. In cases reported as decided by another, there was not a significant difference in resilience score means. Proactively tracking decision-making processes could enhance counselor identification of low resilience. Students who do not return enrollment forms may be indicating low resilience.

Limitations

The results of this study will add to the literature regarding adolescent resilience, and perhaps identify courses in which to enhance resilience through guidance lesson usage. However, several limitations of this study should be taken into account. The ethnicity of the study population skewed to a lower percentage of Hispanic students than is representative of the school district. This was a convenience sample and was not equally representative of the overall district ethnicity.

The Resilience Scale (RS) has possible bias limitations for this study. As with any self-report measures, student veracity is an assumption. Language of the instrument is reportedly written at a sixth-grade reading level, but students consistently
across campuses did not know the meaning of several words (e.g., strive, resilience). Reading comprehension may have factored in results. The instrument does not have reverse-scored items, which may lead to another bias within the study. Students may have recognized the socially acceptable answers and replied in that manner.

Another significant limitation of this study was the crossover of elective enrollment. A straightforward comparison of students by electives was not possible. Students enrolled in multiple electives. Study analysis was limited to athletics/physical education enrollment differences. Course enrollment in either athletics or physical education is a district requirement and a student cannot enroll in both courses.

Recommendations

Resilience is identified as a character trait in resolving life’s challenges. Adolescents face an ever-changing world and having enhanced resilience capabilities may serve them well. Based on the results of this study, the following are offered as recommendations for further study:

1. Conduct a study of students enrolled in athletics to investigate further their level of involvement (team versus off-season) and the role it may have in resilience enhancement;

2. Develop an instrument to measure adolescent resilience with identification of skills and/or personal development addressed in athletics versus physical education;

3. Utilize other measurement instruments (e.g., self-esteem scale, protective factors) to identify additional factors that may increase or decrease resilience;
4. Conduct a study with a structured sample and specific identification of non-overlapping elective courses to eliminate crossover bias in results. This would require extensive preparation as most schools, private and public, offer multiple elective choices;

5. Conduct a longitudinal study following students enrolled in elective courses that build upon the previous school-year work, tracking a student’s level at the beginning level through advanced courses (e.g., band/orchestra, theater arts, Spanish, choir);

6. Conduct a pre- and post-study of physical education students with a resilience education component added to course curriculum;

7. Utilize an individual psychology approach to developing resilience enhancement curriculum and conduct a pre- and post-study of female students;

8. Track course enrollment processes and identify students who do not return course-scheduling documents. Provide group counseling with an emphasis on resilience building to this group of students.

This study identified mixed results for a link between resilience and elective courses. However, the results of higher resilience scores for student athletic enrollment are consistent with literature and provide a foundation for additional research. Further recommendations for the integration of resilience and athletic enrollment are as follows.

As students select courses, professional school counselors have an opportunity to identify potential students in need of additional support. Students previously enrolled in athletics but not re-enrolling may need additional strengths finding assistance.
Addition of guidance lessons for resilience enhancement to the physical education curriculum may assist students in further developing their resilience skills. Counselors may educate staff for signs of lower resilience and provide in-service training on how to enhance resilience levels. In-service training benefits both students and staff.

Regardless of the limitations, this study has contributed to the literature in the fields of resilience, adolescent development, and collaborative learning experiences. The study has also added literature relating adolescent resilience to athletics/physical education course selection and gender specific resilience. It has potential to contribute to further understanding Resilience Scale use with adolescents in identifying and measuring their resilience.
APPENDIX A

SCHOOL DISTRICT PROPOSAL TO CONDUCT RESEARCH
Proposal to Conduct Research in Lewisville ISD

Researcher        Date

Sponsoring Institution
University of North Texas

Topic
Relationship between Middle School Elective Course Selection and Adolescent Resilience

Purpose
The purpose of this study is to determine if a relationship exists between 8th grade elective courses selected and a student's level of resilience. More resilient people are better able to overcome difficulties encountered in life. When students face difficulties in school, Professional School counselors are the front line of service providers. If a relationship between elective courses and resilience exists, counselors are in the position to identify students in a proactive manner who may benefit from opportunities to increase their resilience.

Results may indicate students selecting “X” elective tend to have lower levels of resilience. Within course “X”, a segment on resilience may be taught by the teacher or counselor in order to enhance resilience. Students with lower resilience may be identified proactively for inclusion in ongoing counselor led counseling/social skills groups.

Procedure(s) and Method of Administration
The survey will be administered during the fourth week of the school year during Elective classes. The Elective teacher will administer the survey in a campus computer lab. The Elective teacher will be given a list of students in the class who have parental consent to participate, a set of instructions to read to the students prior to beginning the survey, and contact information for the researcher if they should have questions. Any student without parental permission may be in the room doing another activity of the teacher's choice. The survey should take less than 30 minutes.

Administer a survey on-line, The Resilience Scale, and a basic demographic page using Survey Monkey software. The Resilience Scale is a 25 item, 7 point Likert scale written at a 6th grade reading level. The student will also provide basic demographic information (e.g., birth date, gender, ethnicity, outside of school community involvement, and current semester electives). Student identification number will be used to ensure parental consent has been received. The student name will be on a list of eligible students to participate for teacher use. Their name will not be on the
survey. At the beginning of the survey, a brief student informed consent statement will be presented. The student may opt out of the survey at that time without any repercussions. After verification of parental consent, student identification number will be removed before data compilation.

<table>
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<tr>
<th>Beginning Date</th>
<th>Ending Date</th>
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<tr>
<td>September 17, 2012</td>
<td>September 28, 2012</td>
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**Number/Types of Participants Needed, e.g., Teachers, 10th Grade Students, etc.**

8th Grade Students

**School(s)/Population(s) Requested**

All 8th grade middle school students, excluding AVLS, ALS, would be the desired population. LISD is very diverse across campuses but not always within a campus, I would like to have a true representation of the population LISD serves.

**Anticipated Product/Targeted Audience**

Anticipated Product = Dissertation and at least one related professional journal article. Audience = school counselors, counselor educators, campus administrators

**Assurance of Gaining Parental Permission. Attach Permission Form.**

Parental Informed Consent sent home with the beginning of the school year paperwork, requiring signature and return with other campus paperwork. Student identification number will be on consent form. This will be used to verify permission before administration of survey and to re-verify before surveys are included in data results. The form will be in English and Spanish.

**Anticipated Research Culmination Date**

December, 2012.

**Copies of Formative and Summative Findings/Results/Research will be provided to:**

- Superintendent
- Associate Superintendent for Learning and Teaching
- Participating Campus Leadership and Personnel

I agree I will not publish any work created as a result of this research without first sharing results with and obtaining expressed permission from the Lewisville ISD Assistant Superintendent of Curriculum, Instruction, & Assessment Services.

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Date</th>
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<tr>
<th>Sponsoring Institution Representative</th>
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<th>Associate Superintendent for Learning &amp; Teaching</th>
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APPENDIX B

PARENT INFORMED CONSENT FORM
University of North Texas Institutional Review Board
Parent Informed Consent Form

Before agreeing to your child’s participation in this research study, it is important that you read and understand the following explanation of the purpose, benefits and risks of the study and how it will be conducted.

Title of Study: Relationship between Middle School Elective Course Selection and Adolescent Resilience

Investigator: Mary Donaghey, University of North Texas (UNT) Department of Counseling & Higher Education. Supervising Investigator: Carolyn Kern, Ph.D.

Purpose of the Study: You are being asked to allow your child to participate in a research study which involves your child completing a survey on-line regarding resilience and how they think about themselves. They will also identify their birth date, gender, ethnicity, and outside of school community involvement (e.g. Boy/Girl Scouts, youth groups, sports groups Boys & Girls clubs, community volunteering) and the electives they are taking.

Study Procedures: Your child will be asked to complete a 25 item online survey during the school day that will take less than 30 minutes. At the start of the survey there will be a student consent section. If your child does not want to take the survey, they may decline to participate without any consequences. Participation is completely voluntary with parent consent.

Foreseeable Risks: No foreseeable risks are involved in the study.

Benefits to the Subjects or Others: This study is not expected to be of any direct benefit to your child, but we hope to learn more about resilience levels in comparison to course electives. Students in the future may benefit by learning more about. In the future, school staff’s increased knowledge about resilience related to elective coursework may benefit students’ ability to enhance individual resilience.

Compensation for Participants: None.

Procedures for Maintaining Confidentiality of Research Records: The confidentiality of your child’s individual information will be maintained in any publications or presentations regarding this study. Student identifying information will be removed after verification of parental consent to participate.

Questions about the Study: If you have any questions about the study, you may contact Mary Donaghey at donagheym@lisd.net or Carolyn Kern, Ph.D. at carolyn.kern@unt.edu.

Review for the Protection of Participants: This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.
Research Participants’ Rights: Your signature below indicates that you have read all of the above and that you confirm all of the following:

- You have read the possible benefits and the potential risks of the study.
- You understand that you do not have to allow your child to take part in this study, and your refusal to allow your child to participate or your decision to withdraw him/her from the study will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your child’s participation at any time.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as the parent/guardian of a research participant and you voluntarily consent to your child’s participation in this study.
- A second copy of this form is attached for your records.

__________________________
Printed Name of STUDENT

__________________________
Student ID #

__________________________
Printed Name of Parent or Guardian

__________________________
Signature of Parent or Guardian

__________________________
Date
DEMOGRAPHICS

The next series of statements are related to the elective classes you are currently enrolled in this semester. Take a moment to think about your electives.

Q1 Please select one of the following athletics/sports/physical education choices:
- Athletics (boys, girls, and off season)
- Athletics (tennis)
- Athletics (dance)
- Athletics (cheer as a graded class)
- Physical Education
- Outdoor Education (as PE replacement)
- External Physical Education (special district approval)
- Not required to take Physical Education

Q1a I am taking [Q1 selection] because
- I selected it (my parents, teacher, or counselor may have helped me decide but it was what I wanted).
- My parents/guardians selected it.
- School counselor or teacher selected it.
- I do not know who selected this class.

Q2 Fine Arts Elective - select all you are currently taking
- Art
- Band and/or orchestra
- Choir
- Theatre Arts

Q2a I am taking [Q2 selection] because
- I selected it (my parents, teacher, or counselor may have helped me decide but it was what I wanted).
- My parents/guardians selected it.
- School counselor or teacher selected it.
- I do not know who selected this class.

Q3 Academic Type Electives - select all you are currently taking
- AVID
- Math Lab
- MTA - Reading
- Social Skills
- Spanish
- Teen Leadership

Q3a I am taking [Q3 selection] because
- I selected it (my parents, teacher, or counselor may have helped me decide but it was what I wanted).
- My parents/guardians selected it.
- School counselor or teacher selected it.
- I do not know who selected this class.
Q4 Technology based electives - select all you are currently taking
- Design & Build Bridges, Cars, & Rockets
- Gaming
- Robotics
- Video Technology
- Web Design

Q4a I am taking [Q4 selection] because
- I selected it (my parents, teacher, or counselor may have helped me decide but it was what I wanted).
- My parents/guardians selected it.
- School counselor or teacher selected it.
- I do not know who selected this class.

Q5 Additional Electives - select all you are currently taking
- BIM
- Clothing and Textiles
- Communication App (Speech)
- Comp Elec Adv
- Exploring Careers (Skills for Living)
- Forensics
- Health Ed
- Jrn/News/Pub
- Lifetime Nutrition and Wellness
- Outdoor Education (this is not for PE replacement)
- Principles of Human Service
- Student Aide
- Study Hall
- Yearbook

Q5a I am taking [Q5 selection] because
- I selected it (my parents, teacher, or counselor may have helped me decide but it was what I wanted).
- My parents/guardians selected it.
- School counselor or teacher selected it.
- I do not know who selected this class.

Q6 I am taking an elective not listed in any of the above choices.
- Yes, please write in the box below
- No

Q6a I am taking [Q6 selection] because
- I selected it (my parents, teacher, or counselor may have helped me decide but it was what I wanted).
- My parents/guardians selected it.
- School counselor or teacher selected it.
- I do not know who selected this class.
Q7 I attend
- Creek Valley Middle School
- DeLay Middle School
- Downing Middle School
- Forestwood Middle School
- Huffines Middle School
- McKamy Middle School

Q8 Birth date (please enter mo/day/year)

Q9 Gender:
- Male
- Female

Q10 Ethnicity:
- African American/Black
- Asian
- Hispanic
- Native American
- Pacific Islander
- White/Caucasian
- Two or more races

Q10a Select the two or more ethnicity
- African American/Black
- Asian
- Hispanic
- Native American
- Pacific Islander
- White/Caucasian
- Ethnicity not listed ____________________

Q11 Do you bring lunch from home or buy it at school?
- Bring from home
- Buy it at school
- Both of the above
- I never eat lunch at school

Q11a My school lunch is
- full price
- reduced price
- free
- I do not know

Q12 My home zip code is
Q13 I currently participate in the following activities. Please select ALL that apply.

- Boy/Girl Scouts
- Boys & Girls Clubs
- Bridges
- Community Theater
- Cheer leading (not for PE credit)
- Church Youth Groups
- Job for pay that is done on a daily or weekly basis (not pay for chores or allowance)
- National Honor Society
- Recreational League Sports (not the same sport as approved external physical education)
- Select Team Sports (not the same sport as approved external physical education)
- School Clubs (please write in club(s) name) ____________________________
- Student Council
- Volunteer Activities in the Community
- Other organized activity not listed above (please type in a brief description)
  ____________________________
APPENDIX D

STUDENT ASSENT FORM
Student Assent Form

You are being asked to be part of a research project being done by the University of North Texas Department of Counseling and Higher Education.

This study involves looking at the elective classes you are taking this semester and your answers to 26 items.

You will be asked to rate the items on a 1 to 7 scale by marking the number you want. Your opinions and thoughts are important. There is no “right” or “wrong” answers. You will also answer some basic questions about yourself (e.g., birth date, ethnicity, electives). The survey will take about 30 minutes or less. You will be asked to enter your student identification number - this is needed to confirm your parents’ approval. This is a confidential survey and your ID number will be removed from your answers after parental consent is confirmed.

If you decide to be part of this study, please select the “Yes Participate” button. If you decide not to take part in this study, please select the “No thanks” button. If you decide not to participate that is okay and there are no consequences.

Thank you for your time today. I hope you decide to take part in my study.
M.Donaghey
UNT Counseling Student

Student ID: 

I want to be part of the study.

- Yes, Participate.
- No thanks.
REFERENCES


http://Whatissresiliency.htm


http://Whatissresiliency.htm


