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The Effect of an Educational Intervention on Adolescent Cognitive Autonomy, Identity, Hope, and Educational Aspirations

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THE EFFECT OF AN EDUCATIONAL INTERVENTION ON ADOLESCENT

COGNITIVE AUTONOMY, IDENTITY, HOPE,

AND EDUCATIONAL ASPIRATIONS

by

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ABSTRACT

The Effect of an Educational Intervention on Adolescent

Cognitive Autonomy, Identity, Hope,

and Educational Aspirations

by

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Utah State University, 2008

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This thesis summarizes a study conducted to explore the effect of an educational intervention on cognitive autonomy, identity, hope, and educational aspirations. The primary goal of this study was to investigate (1) the impact of awareness and readiness educational intervention on low-income adolescents' cognitive autonomy, identity, hope, and educational intentions, and (2) how the low-income adolescents receiving the awareness readiness educational intervention compared to adolescents who did not receive the intervention. The Cognitive Autonomy and Self-Evaluation (CASE) inventory, the Modified Extended Version of the Object Measure of Ego Identity Status (EOMEIS), The Children's Hope Scale, and a self-report of educational aspirations were used to measure the four variables in this study. Subjects included 38 adolescents, ages 13 to 17, from lower socioeconomic status (SES), located in the two different school

districts who participate in the GEAR UP intervention, and a comparison sample
included 47 adolescents, ages 14 to 17, from various classes at a local high school.
Findings reveal that changes from time 1 to time 2 (four months) for adolescents
participating in the educational intervention were not significant in three of the four
areas. The educational aspirations results were statistically significant. The adolescents in
the educational intervention group and from the comparison sample found to be similar
on all measures, thus establishing a form or social validation. Results may be contingent
on the type of sample obtained and testing procedures. The results of this study indicate
there may need to be further research in this area.

(133 pages)

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CHAPTER I

INTRODUCTION

Importance of Higher Education

The difference in earnings between high school and college graduates is the most convincing evidence of the economic value of a college education. Median earnings of fulltime, year-round employees ages 25 and older in 2005 showed that a high school graduate earned $24,900 and a college graduate with a bachelor's degree earned $39,000, a difference of over $14,000 (Baum & Ma, 2007). Income is not the only compensation that has been related to levels of education. College graduates are more likely than high school graduates to enjoy employer provided health care and pension benefits (Baum & Ma). College students also enjoy immediate benefits while they are in college, such as the joy of learning and increased social opportunities. Higher education also affords many more opportunities to form social networks and friendships. A college education includes opportunities to develop one's own skills, potential, life values (Kim, 2002), a more fulfilling work atmosphere, better health, longer life, and a higher probability of employment (Perna, 2003). Short-term benefits of higher education include involvement in extracurricular activities and participation in social and cultural events (Kim).

It is evident that the benefits of higher education are far-reaching. These benefits are not limited to individuals but extend to the public realm as well (Baba, 2003). Society also enjoys a financial return on the investment in higher education. Widespread productivity increases and higher earning among educated workers generates higher tax payments on all levels (local, state, and federal). When there is consistent productive

employment, dependence on public programs decreases and all workers, despite their education level, earn more when there are more college graduates in the work force (Baum & Ma, 2007). Reduced poverty increases living standards and this improves the well-being of the population. Individuals with higher levels of education are more likely to exhibit healthier lifestyles, engage in volunteer work, donate blood, and vote (Baum & Ma). College graduates are also more likely to open their minds to different views (increasing tolerance for others), and their children have higher levels of education and more advanced cognitive skills (Baum & Ma). The children of college graduates engage in more cultural, athletic, extracurricular, and religious activities. In short, postsecondary education advances the quality of civil society (Baum & Ma).

<div align="center">Differences in Educational Attainment</div>

College is the assumed next step for many middle- and upper-income adolescents when they graduate from high school, but the transition among students coming from poor and working class homes, is much more complicated (Bloom, 2007). Economic advantage has a well-documented connection with educational attainment. Early economic disadvantage is a strong predictor of high school drop out, fewer years of completed schooling, and lower likelihood of college enrollment. Parents who are economically strained are more pessimistic about the chances of their adolescents' future success, including their educational prospects. Researchers have shown that parents' financial stress can impede their children's intellectual development (Crosnoe, Mistry, & Elder, 2002). Children from low-income families are less likely than children from affluent families to graduate from high school and attend an institution of higher

education. This creates many problems since education increases the likelihood of adult

success (as measured by financial security). Lack of social movement limits the life

course of disadvantaged youth. It also reaches further into society; this lack of movement

reduces the pool of skilled workers and undermines the social service system (Crosnoe et

al.).

Research has indicated that children from low-income families are very different

from children from middle and high income families. Davis-Kean (2005) indicated that

parents from moderate to high-income backgrounds have expectations closer to their

children's actual attainment than parents from low-income backgrounds. Family income

is an important predictor of the physical environment for a child and learning experiences

that happen in the home (Davis-Kean). Children's academic achievement was found to

be mediated by the family environment. Parent's behavior and beliefs were found to be

indirectly linked to SES and child outcomes (Davis-Kean). Guo and Harris (2000) found

that specific components in the home environment are affected by lack of income and

influence children's intellectual development. They also found that cognitive stimulation

in the home is the most important influence mediating the effect of poverty on such child

development.

Possible reasons for this difference are given by Alexander, Entwisle, and

Bedinger (1994). One possible reason may be that parents from low-income backgrounds

do not understand factors which govern achievement, such as encouraging their children

to strive at school and teaching them how to achieve their goals (Alexander et al.).

Another possible reason is that parents from low-income backgrounds place unrealistic

goals on their children (Alexander et al.). Also, the rules of the classroom are foreign to

low-income parents as opposed to middle-class parents who know to involve themselves

in curriculum planning and decisions at their child's school (Alexander et al.). Parents

from low-income families are not used to interacting with the school bureaucracy and

they rarely understand the flow of information from school to the home (Alexander et

al.). These economic factors influence how successfully parents can translate their

beliefs, goals, and values into effective parenting practices (Eccles, 1993). It is harder to

do a good job parenting under stressful economic circumstances (Eccles). They not only

have more external stressors but they have limited resources as opposed to the middle-

class family living in stable, resource-rich neighborhoods (Eccles).

Reasons Lower SES Individuals Tend to Avoid Higher Education

There are several reasons for adolescents from lower socioeconomic backgrounds to

avoid higher education. Each area of development in this research study (i.e., autonomy,

identity, hope, and educational aspirations) is examined and reasons for adolescents from

lower SES avoiding higher education are given.

Autonomy

Erikson (1968) claimed that the over-all contribution to forming one's identity is the

courage to be an independent individual, to choose for one's self, and guide one's own

future. When low-income adolescents decide to attend college often they battle subtle

and not so subtle messages about who belongs in the world of higher education and who

does not. Often they confront these issues on their own. Frequently they make the

journey alone, unaided by their family and their community (Bloom, 2007).

To fight this challenge alone, low-income students must be very independent. If an adolescent who just graduated from high school is not very independent or autonomous, that student will most likely avoid the difficult path of higher education because of the little support and help they will receive along the way.

Identity

There is a connection between identity and education, particularly among adolescents from different socioeconomic statuses. Parent, community, and student attitudes toward education demonstrate the influence of identity; higher education is usually viewed as a middle- upper class institution (Bloom, 2007). If students from a lower socioeconomic background believe that higher education is not part of who they are and attend regardless, this may eventually lead to identity confusion, poor academic performance, and a decision to end their plan to continue to attend an institution of higher education if they make it there in the first place.

According to Cote and Levine (1988), Erikson conceived two types of moratoria (identity exploration phase): psychosocial and institutional. Erikson explained that institutional moratoria are structured socialization settings provided for individuals during their psychosocial moratorium period (in adolescence). During the moratorium period, society allows individuals the opportunity to set aside their responsibilities and behave in many noncontiguous ways and be indecisive about the commitments they will make. This opportunity gives individuals freedom to experiment with different roles, allowing their previous identity to be synthesized again to create a more age-appropriate identity. Marcia (1980) urged researchers to think about the design of cultural institutions (the place identity was formed), specifically general places like in high school and

college. From these identity experts, Erikson and Marcia, we see that institutional moratorium may be a very important phase for adolescents and that high school and college can potentially be instrumental to identity formation in our society.

For middle- and upper-class adolescents, going to college is a process of self-exploration; part of their search for their identity. However for low-income students it may be quite the opposite; if they go to college, their lifestyle is often that of day-to-day survival (Bloom, 2007). This may lead to an opportunity loss for low-income students to develop their identity. Often working fulltime right out of high school, low-income students miss opportunities to explore their identity, opportunities that would likely be found while in college.

Hope

When adolescents set goals, explore related opportunities, and make commitments, they direct their own growth in their social setting (Nurmi, Poole, & Seginer, 1995). Hope provides the grounds for setting goals, planning, exploring options, and making commitments; this guides one's developmental course (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001).

Hope is consistently related to academic achievement (Snyder, Lopez, Shorey, Rand, & Feldman (2003). Snyder et al. found that adolescents with higher levels of hope reported greater scholastic and social capability, and more creativity. They also found that adolescents with higher hope reported significantly greater academic satisfaction, better scores on achievement tests, and higher grade point averages (Snyder et al.). It is evident that there is a connection between hope and education. However, Barnum, Snyder, Rapoff, Mani, and Thompson (1998) found that support is needed to bolster

children's sense of motivation and specifically familial support is needed. Parents need to take time to serve as models for their children and coach them about how to reach goals effectively. Barnum et al. found that children gain hope by learning that they are not alone in their struggles.

Unfortunately many parents of low-income adolescents do not have a lot of time to spend with their children. Crockett (2003) reported that 80% of poor children live in working households and 65% live in households where both parents work. So the relationship that parents need to form with their children to support them and bolster their motivation may not have a chance to thrive while living in a home where both parents are busy working. In a study of impact of parents' work on adolescents from low-income families, Romich (2003) found that adolescents in two-parent families who reported having a distant relationship with their mothers reported more delinquent behavior when their mothers worked fulltime or overtime. Some parents who work full time may lack time to spend with their children and the chance to help them build hope and some may even end up fighting behavioral issues as well.

Educational Aspirations

Bandura, Barbaranelli, Caprara, and Pastorelli (1996) have claimed that one's educational aspirations and supposed academic efficacy affect his or her actual academic achievement. They also claim that a high sense of efficacy for academic mastery and self-regulated learning in adolescents foster scholastic accomplishment both directly and indirectly by raising educational aspirations (Bandura et al.).

Research findings indicate that family socioeconomic status (SES) contributes heavily to ambitious aspirations and the maintenance of high aspirations throughout high

school (Kao & Tienda, 1998). Adolescents from a higher social class are more likely to aspire to high educational and occupational goals than adolescents from the lower social class (Sewell & Shah, 1968). Kerpelman and Mosher (2004) have claimed that youth from low socioeconomic status (SES) background are more likely to experience academic problems and complete fewer years of school. Coleman and Coleman (2003) found that adolescents from lower socioeconomic backgrounds are half as likely to go to a university as are adolescents from medium and higher socioeconomic backgrounds. Adolescents from low SES backgrounds may view the cost of attending a university as a barrier; they have less confidence that their parents want them to attend a university, that their academic results would be adequate enough to attend, or that the subjects there would be of interest to them. According to Coleman and Coleman, the most reliable predictor of people's educational aspirations is their parents' educational levels.

The factors that work to guide and motivate come from the core belief that one has the ability to produce effects by his or her actions (self-efficacy). Belief in this ability to produce effects by actions, therefore, is a pivotal factor in career options and development. The higher someone's perceived ability to fulfill scholastic requirements and occupational tasks, the wider the career choices they sincerely consider pursuing (Bandura et al., 2001).

It is clear that these four areas of human development (cognitive autonomy, identity, future orientation, and educational aspirations) affect adolescents and their decision to continue their education beyond high school. Researchers have considered these areas of human development and SES individually, but there is little research and understanding about all four areas combined and how these areas collectively affect the

decision of low-income adolescents to pursue higher education.

Description of GEAR UP Program

GEAR UP is a program that prepares students to enter and succeed in post secondary education. The GEAR UP program provides many services to students, including tutoring, mentoring, academic and career preparation, and educational field trips and workshops, as well as tools to build other skills for success.

Specific to the four areas of development targeted in this study: (a) the GEAR UP program provides opportunities for low-income adolescents to enjoy cognitive autonomy by allowing them the opportunity to help choose educational field trips and workshops; supporting adolescent autonomy as they make their choices to apply for certain scholarships and post secondary institutions; (b) GEAR UP gives low-income adolescents an opportunity to explore post secondary educational options, choices of types of degrees at the post secondary institutions, and possible career decisions (aiding in identity development); (c) GEAR UP fosters future orientation for low-income adolescents by providing tutoring and mentoring services offered by the GEAR UP staff as well as support and encouragement to work hard in school. This helps the GEAR UP students build hope in their own ability to produce academic achievements and the educational results they desire to accomplish; and (d) the GEAR UP program hires tutors/mentors from low-income backgrounds, this helps the GEAR UP participants see that success is possible for the tutors/mentors (from similar backgrounds who act as role models), the GEAR UP participants watch these role models work hard and graduate from college. Thus encouraging them to do the same and as they observe their role

models (GEAR UP tutor/mentors) they notice that it is possible for them as well. The

GEAR UP participants are also influenced by guest speakers and presenters (similar in

background), the presenter's examples help to open the adolescence eyes to possibilities

thus influencing their educational aspirations.

Purpose

This study was motivated by a potential relationship between an educational

intervention and cognitive autonomy, identity, hope, and educational aspirations. This

educational intervention (the GEAR UP program) helps students become aware of

postsecondary education opportunities and prepares students for these opportunities (an

awareness readiness educational intervention). The purpose of this study was to advance

the base of knowledge related to awareness and readiness educational intervention and

these areas of adolescent development.

Cognitive Autonomy was measured using the Cognitive Autonomy and Self-

Evaluation (CASE) inventory. Adolescent identity was measured using the Modified

Extended Version of the Object Measure of Ego Identity Status (EOMEIS). Hope was

measured using The Children's Hope Scale. Educational aspirations were measured by a

question included in the self-report. These measures were administered before and after a

period of participation in the educational intervention. Therefore the relationship of

awareness readiness educational intervention and cognitive autonomy, adolescent

identity, future orientation, and educational aspirations was investigated.

Research Questions

As mentioned, very little research has been conducted to link awareness and readiness educational intervention for low-income adolescents' cognitive autonomy, identity, future orientation, and educational aspirations. The purpose of this study was to better understand the effect of an awareness readiness educational intervention on adolescent cognitive autonomy, identity, hope, and educational aspirations. Adolescents who change as a result of the intervention may demonstrate development in the four areas: cognitive autonomy, adolescent identity, future orientation, and educational aspirations.

The following research questions address these issues:

1. What is the impact of awareness and readiness educational intervention on low-income adolescents' cognitive autonomy, identity, hope, and educational intentions?

2. Do the scores (from the measures identified on the self-report) of the low-income adolescents receiving the awareness readiness educational intervention compare favorably to adolescents who do not receive the intervention?

Information from this study may be valuable in identifying successful educational intervention strategies for low-income adolescents. Findings may provide useful information for professionals working in the education system or in other fields working with low-income adolescents. For example, awareness readiness intervention techniques may assist in helping low-income adolescents prepare for higher education.

CHAPTER II

REVIEW OF LITERATURE

This literature review is presented in the four areas of human development relative to this research (cognitive autonomy, adolescent identity, future orientation, and

educational aspirations). In each section of this review, the human development area will

be described and explained, past or possible interventions will be reviewed, and a

description of how the area relates with the awareness readiness intervention (the GEAR

UP program) is given.

Each of the four human development areas is an important part of healthy

development and progression. This development affects adolescent attitudes about

education, thus the relevance for the inclusion of these topics in this study and this

literature review.

<div align="center">Cognitive Autonomy</div>

Erikson (1968) wrote that "the stage of autonomy, of course, deserves particular

attention" (p. 114). The entire upbringing of the youth in America has made the

development of self-reliant personalities dependent on a certain degree of choice,

continued hope for individual chance, and a firm dedication to the freedom of self-

realization (Erikson). In short development of autonomy (self-reliance, choice, individual

chance, and freedom) is an important part of adolescence.

Description of Cognitive Autonomy

Autonomy is usually explained as the ability to control one's own behavior.

Autonomy can also be described as a developmental task: even as a prerequisite to

adulthood (Noom, Dekovic, & Meeus, 2001). In general, autonomy can be defined as a

state of independence and self-government. Autonomy is often referred to and defined in

three ways: behavioral, emotional, and cognitive. Cognitive autonomy is a sense of independence, a conviction that one has control over their life, and personal feelings of being able to make decisions without seeking justification from others (Spear & Kulbok, 2004).

Noom, Dekovic, and Meeus (1999) found age-related trends in the development of autonomy. There was an age-related increase in feeling capable to make personal decisions, age-related self-confidence, and functional autonomy (older adolescents make more of an effort to regulate their own daily activities than younger adolescents). In short, much support was found indicating an age-related increase in functional and attitudinal (or cognitive) autonomy (Noom et al.). This demonstrates that autonomy is an important issue for adolescent development.

There are three theoretical approaches that reign in research on adolescent autonomy: the cognitive, the psychodynamic, and the eclectic approach. In the majority of studies there is a cognitive aspect, referring to the cognitive process of evaluating desires and possibilities, defining personal goals, and developing personal values (Noom et al., 2001). All of these approaches refer to the perception that adolescents have about what to do with their lives and as a whole this concept is labeled by Noom et al. as attitudinal autonomy. Noom et al. also stated that the most significant conclusion from their work was that there is a distinction between cognitive, behavioral, and emotional elements of autonomy.

Beckert (2007) has explained that most attempts to quantify the development of independence in adolescence have primarily focused on behavioral and emotional constructs. The conceptualization of independent thought has received much less

attention in the literature. Limitations of methods have also contributed to the lack of understanding of cognitive independence apparent in adolescents. Only recently have researchers started to study the importance of assessing adolescents' impressions of their own independent thought (Beckert).

Understanding the development of adolescent independent thought is important because cognitive autonomy and self-evaluation skills in adolescents can facilitate important decisions regarding adulthood (Jacobs & Klaczynski, 2002). One of the most important tasks for all adolescents is learning autonomous skills that will help them manage their own lives and make positive, healthy choices. When adolescents feel autonomous they are more motivated and more likely to engage in the world around them (Stefanou, Perencevich, DiCintio, & Turner, 2004).

The development of autonomy does not happen at one point in time and can generally occur throughout human development (Steinberg, 2001). Autonomy continues to develop in adulthood whenever someone is challenged to act with a new level of self-reliance. Autonomy during the preteen and teen years holds increased meaning because it signifies that an adolescent is a unique, capable, independent person who depends less on parents and other adults (Steinberg).

Autonomy is hard to understand because it has an active and changing process with many levels of interaction and growth. It involves independent choice and thinking. As a person struggles with autonomy they often have feelings of conflict and doubt, especially in adolescence. Adolescence is a time when the child is breaking away from the parent and striving for his or her own separate identity and independence. It is often said that autonomy is a desirable condition that plays an important role in maturation and

the ability to act for one's self (Spear & Kubok, 2004).

Possible Autonomy Interventions

Studies show that supportive relationships aid autonomy. Adolescent autonomy with affective support and connection provides the best possible environment for developing social skills, identity, and psychological well-being (Noom et al., 1999). Possible interventions to build autonomy could involve parent relationships and interventions within school systems. There are very few interventions that have been done with autonomy, and even fewer intervention studies done on cognitive autonomy. However, there have been studies done to demonstrate effective ways to support autonomy in the area of parent relationships and in the school atmosphere. For example, when there are close interactions between adolescents and parents, parents help their adolescent children explore from a secure base of a positive relationship. Adaptive adolescents show behavior that forms a partnership between parents and adolescents and helps the adolescent move toward establishing autonomy (Allen, Hauser, Thomas, & Tomas, 1994).

Parental relationship interventions. A key developmental task of adolescence is to establish independence (or autonomy) from parents, but this independence should develop within a supportive family environment (Crosnoe & Elder, 2004). According to Allen et al. (1994), it is critically important for adolescents to maintain positive relationships with parents while achieving autonomy. Adolescents who reported having close relationships with their parents reported better adjustment to separation, more assertiveness, greater competence in dating, greater resistance to peer pressure, greater self-esteem, and less loneliness when leaving home for college (Allen et al.).

A supportive and challenging family environment is the best way to help adolescents have experiences that will help them grow. This type of environment provides plenty of freedom to control and choose activities for themselves (Hektner, 2001).

Parental support of autonomy has been associated with natural motivation and academic performance in early adolescence. Parents who praised children for their efforts and abilities and parents who encouraged their children to solve problems on their own were more likely to have children who enjoyed having more complex responsibilities (Hektner, 2001). Parenting can assist or hinder adolescent development and parental autonomy and acceptance have a positive effect on numerous aspects of adolescents' psychosocial development (Seginer, Vermulst, & Shoyer, 2004).

School system interventions. School may possibly be the most constant source of challenging experiences and likely the main location for developing skills. Schools that promote autonomy seem to be able to improve the quality of experiences for adolescents (Hektner, 2001).

Teachers may promote constructive development for youth by sustaining atmospheres that are abundant with support between people, autonomy, and opportunities that pursue challenges connected to future goals. As adolescents get older, the social part of school becomes more significant. This social environment is essential in order to experience growth (Hektner, 2001). Teachers offer support by instruction and they do so on a personal level. This support aids the development of autonomy. Support in the classroom for cognitive autonomy may promote a lasting mental investment in deep thinking (Stefanou et al., 2004).

Stefanou and colleagues (2004) account for much of the research on autonomy in the school atmosphere. They found that autonomy supports more diligence on responsibilities and increases self-control for learning. Autonomy is one of the three necessary prerequisites for best possible learning. To best support autonomy, it is believed one should provide choices and remove outside controls, like pressures or rewards (Stefanou et al.). Teachers who support autonomy listen more to their students and allow them to handle and control materials and ideas more often. These teachers are more likely to ask students about their desires, respond to their questions, and they are less likely to give directions or solutions. They have a more student-centered environment, encourage students to take initiative, nurture competence, and do not use controlling communication (Stefanou et al.).

Support of autonomy in the classroom was found to increase adolescent motivation and achievement. Stefanou et al. (2004) also found that autonomy was significantly related to on-task behavior and positive attitudes for learning. Teachers that foster autonomy demonstrated the ability to help increase the supposed competence and motivation of their students. Adolescents that saw themselves as autonomous and competent were more persistent, involved, curious, and they reported that they enjoyed school work more than students who exhibited low competence and low autonomy (Stefanou et al.).

Support of Autonomy in the GEAR UP Program

Parental support. Parents demonstrate their support for the autonomy of their children by allowing them to be a part of the GEAR UP program. The majority of the GEAR UP program is held after school. This means the adolescents are mostly on their

own during this time after school. Though they are under the supervision of the GEAR

UP staff during the GEAR UP scheduled time, the adolescents are responsible to get to

the program and home. This demonstrates trust from parents and is a form of

independence.

School system. GEAR UP supervisors and tutor/ mentors are very similar to

teachers and they do their best to promote positive development for the adolescents in the

program. They work to create an atmosphere of support and opportunities to pursue

challenges connected to future goals (Stefanou et al., 2004). Most of the opportunities to

pursue challenges and goals are within the school setting (i.e., getting better grades,

improve ACT scores, using better study habits, and planning and scheduling more

efficiently). One of the biggest part of the GEAR UP supervisors' and tutor/mentors' job

is to challenge the adolescents' goals, to teach them how to reach their goals, and support

and encourage them to continue even when it gets tough.

Adolescent Identity

"The over-all contribution to an eventual identity formation is the very courage to

be an independent individual (be autonomous), who can choose and guide his own life"

(Erikson, 1968, p. 114). The residue of the stage of autonomy seems to be "I am what I

can will freely" (Erikson, p. 114).

Description of Adolescent Identity

Erikson (1963) viewed the fifth stage in human development as identity versus

role confusion. He believed this happened in adolescence when puberty starts and

adolescents are experiencing a "physiological revolution" inside themselves (p. 261).

During this time they are primarily concerned with their appearance in the eyes of their

peers, compared to the feelings they have about themselves. Erikson claimed that role

confusion is the danger of this stage. The thing that disturbs youth the most is the

inability to settle on an occupational identity. Youth feel a deep need to redefine their

identity in this industrialized world (Erikson, 1950).

In adolescence, identity problems may be resolved successfully. This happens by

finding a balance between confusion and commitment about beliefs, values, goals, and

roles in society. If these concerns are not resolved the adolescent will stay in a stage of

confusion called "identity diffusion" (Makros & McCabe, 2001, p. 624). People in this

stage do not integrate well and they tend to have a hard time with commitment (Makros

& McCabe). According to Josselson (1994), identity is the process of declaring

membership in the social world, standing for something, and being known for whom one

is. Once it occurs, this identity forms the foundation for adulthood.

Marcia (1966) pointed out two important parts of Erikson's idea of identity

formation: first an exploration of beliefs, values, and goals and second a commitment to

an exact set of beliefs, values, and goals. Marcia observed differences in the presence or

absence of exploration or commitment in the areas of occupation, lifestyle, religion, and

political ideas. Discrepancies in exploration and commitment result in four different

identity resolutions. Marcia named these four outcomes "Identity Statuses." The four

statuses are: (a) Identity Achieved: People who have explored and who are dedicated to a

set of beliefs, values, and goals; (b) Identity Moratorium: People who have not yet fully

committed to a set of beliefs, values, and goals, but are exploring other ones; (c) Identity

Foreclosed: Individuals who are very committed, but have not considered other ideas;

and (d) Identity Diffused: People who are not exploring and have few commitments (Marcia).

The principal task of adolescence is the establishment of an ego identity (Erikson, 1963). Relationships aid identity development. People are who they are because they have unique relationships with others; and thus identity is a psychosocial characteristic (Marcia, 1983). Marcia stated that it is impossible to achieve a sense of identity without support for meaningful exploration. Based on identity research, Marcia (1983) felt confident saying that: "no attachment, no meaningful exploration and experimentation; no meaningful exploration and experimentation, no subsequent commitment; no commitment, no identity" (p. 221). Marcia (1989) has claimed that the most useful place to start (when desiring to promote identity development) is not with identity statuses but with the process that underlies them; exploration and commitment. In order to make commitments, people must feel that they will have support even if they let go of some alternatives. Support can come from the family, social situations, or peers; ideally it will come from all three areas (Marcia).

Possible Identity Interventions

Researchers have learned a great deal about the process of identity formation (Archer, 1989). Knowledge about identity must be applied carefully and in respect to the individual's readiness, in order for them to be guided toward personally expressive choices as they confront crossroads in their lives (Archer).

Marcia (1983) stated that there are three variables during early adolescence which are prerequisites for successful identity formation in late adolescence. These variables are confidence in parental support; a sense of industry; and a self-reflective approach to

one's future. Literature is replete with possible identity development interventions on parental support and sense of industry.

Parental support interventions. Research has demonstrated healthy identity development emerging from a combination of children being emotionally attached to their parents and parents working to encourage their children's independence (Campbell, Adams, & Dobson, 1984). Marcia (1966) stated that family interaction was a significant factor for identity formation in adolescents. Particularly warm interactions, acceptance, and understanding are associated with identity development. For years there has been much recognition in writings from the west given to the family atmosphere, practices of raising children, child attachment to parent(s), and style of parenting in their influence on identity development. O'Conner (1995) found that parental emotional support was conducive to identity achievement for males and foreclosure for females. In another study with female adolescents, Adams (1985) discovered that supportive parent and child relationships helped females move toward identity achievement. Warmth and autonomy were found to enhance identity development and confidence for adolescents (Kamptner, 1988).

These research findings support the expectation that styles of parenting, including acceptance and involvement, facilitate adolescents' identity development. Also, a careful balance of parents connecting with their children and letting them still be an individual is very important for identity exploration and identity resolution (Cakir & Aydin, 2005). Jones (1994) declared that prevention (and intervention) efforts would most likely benefit if they were to include a parent component (for parents) that focused on helping their children with tasks that form foundations of healthy psychosocial development.

The result of Cakir and Aydin's (2005) study supports the ideas from many other studies in this area. Attitudes of parents influence their children's identity status. In general, research has demonstrated that those who are identity achievers or in moratorium see their parents as encouraging independence, hardly controlling or regulating their behavior. Findings from the study declared that parents who used a lot of control did not always produce identity achievement for their children. In fact, children who grow up with controlling parents generally grow in the foreclosed course (Cakir & Aydin). Adolescents are better able to make commitments if they know that failures will be brought back to a safe context, where they can venture forth again (Marcia, 1989).

Sense of industry/school interventions. Erikson's term industry refers to feelings of competence in mastering the technological tools of society, industry is a task for school-age children. However, if a sense of industry has not been developed by the adolescent years, it is difficult for adolescents to make occupational commitments that are required as part of their identity formation (Marcia, 1983). According to Josselson (1994), Dreyer (1994), and Raskin (1994), intervention in school (educational environments or social organizations), may be an effective way to foster identity formation. According to Josselson, to understand identity, we must focus on individual dynamics and society. She further explains that in order to intervene in the process of identity formation, changes may be made in either the social or the individual environment, where identity formation happens. Dreyer gives many specific ideas about how educational environments and curricula can be structured to promote identity achievement for adolescents. Raskin supports the idea that identity formation happens in social situations: Family, peers, culture and society, school, and work. He focuses on

identity and career counseling, and specifically on vocational identity and vocational

interventions.

Marcia (1989) thought that one of the most useful and feasible environments to

introduce identity intervention would be educational programs in junior high and high

schools. Schools provide the single most significant setting where psychosocial

development takes place. School plays an important role in how adolescents see

themselves, their behavior, and their achievements. The way adolescents view

themselves in the school context is a part of adolescent identity development

(Lannegrand-Willems & Bosma, 2006). Development will occur in the school setting,

planned or not, in a setting that is facilitative or obstructive. Marcia believed that teachers

who were informed about psychosocial development helped the setting in the school

become more facilitative for identity development. Informing teachers seems to be the

most productive and feasible strategy for intervention in adolescent identity development

(Marcia).

According to Jones (1994) "schools have been tasked as the social and political

institution that is (a) closest to the problem, (b) socially responsible, and (c) politically

controllable" (pp. 184-185). Jones explained that regardless of their willingness

educators are being forced to act as substitute parents to children who come from

families who are unable or unwilling to fulfill their developmental needs. Instrumental

tasks that were previously taught in the family are now commonly found in the classroom

(Jones).

Lannegrand-Willems and Bosma (2006) found that school situations play an

important role in adolescent identity development. It is at school that adolescents make

vocational choices. These decisions by adolescents lead to commitments represented the first signs of achieved identity status. Choices that adolescents make at school (such as "who do adolescents want to be in the school context? What is their position with regard to the school; are they 'inside' or 'outside' the school system?" p. 86) can confirm their identity (Lannegrand-Willems & Bosma). Lannegrand-Willems and Bosma found that school atmosphere has a direct role in identity development and this role became more important through the school year and had effects on the academic achievement.

Raskin (1994) stated that the goal of intervention in an individual's educational and occupational development is to open doors. Marcia (1969) wrote that "it is the inability to settle on an occupational identity which most disturbs young people" (p. 132). Raskin wrote that the key is to encourage exposure to a more varied world without demeaning the activities they already love. One of Raskin's ideas for an intervention is to provide exploration of occupations secondary to the area of interest that already exists; a natural extension of exploration. Raskin declared that alternatives for occupations are important to identity achievement and should be given attention by all adolescents. Raskin's research findings suggest self-exploration that is information-oriented is important to the process of identity formation. Raskin also found that occupational choices made by individuals can only happen when a range of probable and equally attractive choices exist.

Peer interventions. It is clear through research and theory that friendship is a very powerful part of development in adolescence. Adolescent friends are similar in identity, including attitudes, behaviors, and intentions related to identity (Akers, Jones, & Coyl, 1998). Most agents of change (i.e., mentors) in adolescent's lives are adults and it is rare

for any adult to be familiar with the latest conventions, music groups, or language of early adolescents. If peers are present during an intervention they make the situation more real. The adult agents of change can still provide safety and structure, facilitation and direction (Marcia, 1989). Adolescents are likely to become like their peers and take on attitudes of the majority of students at their school (Lannegrand-Willems & Bosma, 2006).

Support of Identity in the
GEAR UP Program

Parental support. The GEAR UP Program speaks to each of these afore mentioned issues as interventions for identity development. First, the parent component of the GEAR UP program; parents are informed about GEAR UP events and their adolescent children via letters, phone calls, and emails. Parents are also included in workshops, occasionally in field trips, and activities during the school year and summer. There are many opportunities in the GEAR UP program for parents to offer emotional support for their adolescent. This is conducive to identity achievement for males and foreclosure for females (O'Conner, 1995). Also parental supportive has been found to help adolescents move toward identity achievement (Adams, 1985).

Sense of industry/school. Secondly, the mission of the GEAR UP Program is to prepare adolescents for post-secondary education, to help students become more self-reliant and to help students realize their sense of industry. These happen by tutoring, mentoring, and helping students realize what is required to be successful beyond high school. The GEAR UP Program also supports a sense of industry by helping the students explore educational and occupational options. Each month the students travel to post-

secondary schools or places of employment as well as listen to guest speakers a variety of careers and occupations.

Support from peers. Third, peers are also an important part of the GEAR UP Program. Students must qualify be a part of the GEAR UP Program. One of the most important qualifications for the students is that they are planning to proceed on to post-secondary education. Because the students in the program intend on continuing their education they have great influence on each other. The students look to each other and take on similar attitudes about themselves, their abilities, and even their identity.

<div align="center">Hope</div>

Skill and intellect are not the only determinants of success in the classroom (Snyder, Feldman, Shorey, & Rand, 2002a). Not all talented adolescents achieve a level of success that is consistent with their academic potential, this may lower their educational expectations, and they may choose not to go to college or, if they do go, they may drop out before graduating (Snyder et al.). Therefore, it is important to understand what factors keep students on track to reach their educational goals (Snyder et al.). Much research has targeted factors that advance or hinder academic achievement. The hope theory has been found to be a useful motivational model for use in this educational research (Snyder et al.).

Scholarly writings before Snyder's time defined hope as a one-dimensional construct that involved an overall perception that one's goals could be met (Curry, Snyder, Cook, Ruby, & Rehm, 1997). Valle, Huebner, and Suldo (2004) indicated that Snyder and his colleagues expanded this one-dimensional model and created a

multidimensional hope theory which incorporates three components: goals, pathways, and agency. Research over the past three decades has explored the construct of hope, however, Snyder and his colleagues contribute to the majority of findings in the literature (Gilman, Dooley, & Florell, 2006).

Description of Hope

During the late 1950s and 1960s, theories of hope "involved a person's perceptions that a goal could be obtained" (Valle et al., 2004, p. 320). Hope was also described as one's feelings or thoughts that good things will happen to them (Valle et al.). Hope is conceptualized by Snyder and colleagues as a goal-directed cognitive process and defined as a cognitive set based on a sense of successful agency (goal-directed determination) and pathways (plans to meet goals) that are reciprocally derived (Snyder et al., 2002a).

Snyder and colleagues (2002a) offer definitions for their three components of hope (goals, pathway thinking, and agency thinking). Goals are targets of mental action and progression and anticipated ends; they are anchors for purposeful behavior. Pathways are an individual's capacity to create cognitive routs to their desired goals (Snyder et al.). Agency cognitions are thoughts which an individual has regarding their ability to begin and continue movement toward their goal(s) (Snyder et al.). Hope is defined as "the process of thinking about one's goals, along with the motivation to move toward those goals (agency), and the ways to achieve those goals (pathways)" (Snyder et al., 2002b, p. 820). In this sense, hope is not an emotion but instead, it is a "dynamic cognitive motivational system" (Snyder et al., 2002b, p. 820).

Hope has been repeatedly linked to many positive adolescent outcomes. Hope

correlates positively with self-esteem, perceptions of control, problem-solving

capabilities, positive affectivity, optimism, and positive outcome expectancies (Snyder et

al., 2002a). Hope helps students approach problems while they focus on success; this

increases the likelihood that they will attain their goals (Snyder et al.). People with higher

levels of hope have more positive thoughts and more confidence (Valle et al., 2004).

Valle et al. also found that people who reported having high levels of hope also reported

having more energy and tended to feel challenged by their goals (Valle et al.). High-hope

persons were also found to display health benefits, primarily from their willingness to

commit to good health practices, they are more likely to participate in physical exercise

(Valle et al.).

Hope has also been linked specifically to academic achievement (Valle et al.,

2004). Chang (1998) found that college students who reported having high levels of hope

also had high academic life satisfaction scores. In a sample of 140 college students (48

men and 92 women), ages ranging from 17 to 37 years. Chang found that students with

high levels of hope had a mean score of 23.96 on academic life satisfaction versus the

mean score of 20.52 for students with low hope. The difference calculated a t (1.209) =

4.32, which then resulted in a $p < .0002$. Snyder et al. (2002b) studied 213 newly

admitted college freshmen ages ranging from 18 to 21. Seventy were high hope

participants, 71 were found to have medium hope levels, and 72 were found to have low

hope. The participants hope levels, GPAs, graduation status, and American College

Testing (ACT) scores were obtained. At the end of the first trimester, the high hope

students had a mean GPA of 2.77, the medium hope students had a mean GPA of 2.71,

and the low hope students had a mean GPA of 2.40. At the end of the second semester

the GPA mean for the high hope students was 2.80, medium GPA mean was 2.54, and

the GPA mean for the low hope group was 2.37. Both semesters the scores of the high

hope students versus the low hope students were statistically significant at the .05 alpha

level (Snyder et al.). They also found cumulative GPA and hope scale scores to be

significantly positively correlated $r(211) = .21$, $p < .01$; and a partial correlation between

GPA and Hope Scale scores after removing the shared ACT variance $r(191) = .13$, $p =$

.04 (Snyder et al). After six years 53.80% of the high hope students had graduated

compared to 40.27% of the low hope students. Higher hope students had higher

cumulative grade point averages and a greater probability of graduating from college, as

well as a lower probability of being dismissed for poor academic standing (Snyder et al.).

Possible and Past Hope Interventions

These findings demonstrate that higher levels of hope may promote optimal

psychological and academic performance among adolescent students (Gillman et al.,

2006). "Hope appears to play a role in successful cognitive-behavioral interventions"

(Snyder et al., 2000, p. 759). The areas of past and possible intervention for hope

development are similar to the areas of possible intervention for autonomy and identity

development (a) parental influence, (b) within the school setting, and (c) peer

relationships.

Parental influence. Parents influence their adolescents' hope through the support

they give them. Adolescents are motivated through parental and familial support. Parents

must spend time with their children, talking to them, modeling for them, and coaching

them about how to reach goals (Barnum et al., 1998). Hodgkins' (2001) dissertation

study included 41 males and 57 females, predominantly Caucasian adolescents, ages 13-

19 or 10th to 12th grade. One of the measures they completed was the Children's Hope Scale (CHS). Hodgkins' summary of her finding included significant correlations between parental acceptance and hope. She also found that parental acceptance was a better predictor of global personal hopefulness than social desirability (Hodgkins). Children build hope "through trust in predictability of cause-and-effect interactions with parents and caregivers" (Snyder et al., 2003, p. 131).

Neblett and Cortina (2006) found parental support to be a moderating and direct influence on adolescents' hope for the future. Greater support from parents was related to more positive hope for the future among adolescents. Encouragement from parents to plan for the future predicted detailed and frequent thoughts by adolescents about their future, which in turn lead to higher levels of optimism. Parental support and feedback may encourage adolescents to attain the skills to plan, set goals, and evaluate their progress, thus nurturing optimism and hope (Neblett & Cortina).

Both father- and mother-child relationships have significant effects on child adjustment. McCabe and Barnett (2000) hypothesized that children with greater amounts of contact with both parents would have more hope for their future, due to their increased opportunities to develop stable attachments with both important adult figures. Kinship support was strongly connected to children's belief that they could have control over future outcomes in their lives.

School setting. Although hope is by nature a dispositional trait, it is believed that levels of hope can change. This happens over time through sustained interventions, such as counseling and education (Valle, Huebner, & Suldo, 2006). "School psychologists greatly contribute in helping students, teachers, and schools in general to become more

hopeful" (Snyder et al., 2003, p. 122). Lower and average levels of hope can be increased and changed into levels of hopeful thinking that make a positive difference (Snyder et al.). Snyder et al. propose that school psychologists use and improve techniques for increasing hope in all children. Students with the least amount of hope usually benefit most from hope interventions (Snyder et al.).

School psychologists and teachers can help adolescents set goals (Snyder et al., 2003). Adolescents need encouragement to set goals for different areas of their lives, interpersonal employment, and educational goals (Snyder et al.). When school professionals help adolescents with goals, they help adolescents think of options. If a goal gets blocked for some reason, they have other goals to pursue (Snyder et al.). School psychologists and other school professionals can raise hope in their school buildings and school districts by facilitating hope which happens naturally through individual and group achievements (Snyder et al.).

Children develop hope by learning to trust through order and predictability and consistent interactions with their teachers (just like with the parents or caregivers) (Snyder et al., 2003). Teachers create hope by being fair, firm, and consistent with their students. Hope grows in an atmosphere where adolescents are responsible for their actions and where students are held to reasonably high standards. When order and responsibility are established in the classroom the teacher can then plant the seed of trust with his or her students (Snyder et al.). Trust then opens the doors for growth-inducing goals that will stretch the students (Snyder et al.).

Teacher support is one of the most important influences for students. Goodenow (1993) found a strong association between support and motivation for adolescents.

Teacher support was found to be a positive predictor of both class and school related interest and social responsibility in pursuing goals. Interest in school is powerful as a motivation; it helps to form regulations in behavior that are driven by goals (Wentzel, 1998).

A positive experience in school can contribute to the development of hope and self-confidence in students. In order to increase motivation in the classroom, it is crucial that teachers stay enthusiastic about what they teach; enthusiasm is contagious (Snyder et al., 2003). Hopeful teaching is a give and take process between the teachers and the students. An important part of the "teacher's role is to encourage students in pursuit of classroom goals" (Snyder et al., p. 824). Teachers do this by modeling and directly reinforce the students' efforts. Teachers and students have shared roles in keeping hope alive (Snyder et al., 2002b, p. 824).

Peer relationships. Wentzel (1998) found that support from peers (or other students) was a positive forecast of prosocial (or healthy social) pursuit of goals. Adolescents play a critical role in their classmates' social adjustment to school. Interaction between peers is a necessary part of development to learn perspective and empathy (Wentzel).

Support of Hope in the GEAR UP Program

Parental influence. Parents (as mentioned earlier) are an important part of the GEAR UP program. The invitation to be a part of the GEAR UP program is first sent to parents of potential GEAR UP participants in the school registration packets or in a letter (addressed to the parents). Parents are usually the motivation or even (in some cases) the reason for adolescents sign up for the GEAR UP program. After an adolescent has signed

up for the program, the parents are then informed regularly about what is happening in

the GEAR UP program. Parents demonstrate their hope for their adolescent when they

sign them up for the program. They have hope that their adolescent will become better

prepared for education beyond high school. Parents are also included in certain

workshops, educational activities, program social events, and award nights for the

adolescents. Parents are able to demonstrate their hope for their children as they attend

these activities. Even if they do not attend the program functions they demonstrate their

hope for their adolescent as they simply encourage and support their adolescents'

continued participation in the program.

     School setting. The tutor/mentors in GEAR UP program are similar to teachers,

only they act in small group settings or one-on-one. Because of this similarity GEAR UP

tutors can help build a sense of belonging and personal support which facilitates

academic motivation and achievement (Goodenow, 1993).

     The tutor/mentors in the GEAR UP program also demonstrate hope for the

students in the program daily as they teach, encourage, support, and believe in them.

They are asked to share information with the adolescents in the program about how to be

successful students and people in general. These messages are full of hope and ideas for

the adolescents about how they can accomplish their goals.

     The GEAR UP liaisons, supervisors, and tutor/mentors build hope in diverse

ways. While working with the adolescents they talk about the adolescents' future in many

positive ways. At the beginning of each school year the adolescents are asked to fill out a

form called a "Life Plan." On that form they are to write their plans for that year,

including past accomplishments (to give them a sense of achievement), and goals for the

school year. These life plans help the adolescents in the GEAR UP program look toward the future and make plans accordingly. The life plans also help the GEAR UP staff know the goals of the GEAR UP students and they can then help and encourage them to do what they need to do now, so they will be in the best position to reach their future goals.

GEAR UP supervisors and tutors/mentors are college students from similar backgrounds as the adolescents in the program. The tutors and mentors are motivated and excited about reaching their own goals. They become a model of hope for the GEAR UP students. They build hope for the adolescents just by their example and influence the students in many positive ways.

Peer relationships. GEAR UP members come from similar low-income backgrounds. When adolescents join the GEAR UP program they either bond closer together due to the fact that they are working towards improving their future together or they make new friends with other peers who are in the program and spending time together with a common goal to build a positive future for themselves. The GEAR UP participants are there to support and encourage each other. These positive peer relationships help them build their future orientation and other developmental skills.

Educational Aspiration

Improving school conditions is an important way to increase educational aspirations among adolescents: however, Kerpelman and Mosher's (2004) research indicates that identifying ways to strengthen adolescents' hopes for the future may also increase their incentive to stay in school. A positive future orientation (or hope for the future) will naturally bring about higher educational aspirations.

Description of Educational Aspirations

Educational aspiration means the level of education one hopes to attain. Herting and Blackhurst (2000) indicate that aspirations appear to form at very early ages, even as early as second or third grade. Many variables add up to form one's educational aspirations. Some of the most commonly mentioned variables for high educational aspirations are; family involvement and background in education, academic self-concept, and influences from academically oriented peers (Garg, Melanson, & Levin, 2007). Family background, personal characteristics, and proximal learning conditions combine and have a large effect on adolescents' educational aspirations and their eventual educational achievement (Marjoribanks, 2003). According to Mau and Bikos (2000) the two strongest predictors for educational and occupational aspirations are (1) school programs (or academic tracks), and (2) the type of school one belongs to (e.g., private, charter, or public school). Both of which are highly effected by socioeconomic status. Mau and Bikos also indicated that internal locus of control (or self-control) was a significant predictor for educational and occupational aspirations.

Unless someone thinks that they can achieve a desired result by their actions, they have little reason to be motivated to act (Bandura, 1977). Adolescent's attitudes about their ability to regulate their own learning activities and master complicated subject matter, affects their academic incentive, attention, and educational success. The more an adolescent believes in their ability to attain their goals, the more professional choices they will regard as possible. The greater interest they show toward professional choices, the better they will prepare themselves educationally for different occupational ambitions as well as a greater determination and achievement in their academic coursework

(Bandura et al., 1996).

The factors that work to guide and motivate come from the core belief that one has the ability to produce effects by their actions (self-efficacy). Belief in this ability to produce effects by actions, therefore, is a pivotal factor in career options and development. The higher someone's perceived ability to fulfill scholastic requirements and occupational tasks, the wider the career choices they sincerely consider pursuing (Bandura et al., 2001).

Possible Educational Aspirations Interventions

High school youth and particularly minority youth, face increasingly severe difficulties while pursuing their educational and career aspirations (Kenny, Blustein, Chaves, Grossman, & Gallagher, 2003). If the goal is to increase the probability that adolescents in this day realistically identify their educational and occupational aspirations and complete the associated educational programs then there must be a comprehensive exam of the adolescents' school, family, and psychological background.

Interventions can be developed to address these school, family, and psychological issues (Mau & Bikos, 2000). Mau and Bikos strongly suggest that adolescents be locked into a particular academic program and that school staff members and counselors help them explore their educational and vocational options and assist them in matching their goals with academic programs available to them. If adolescents have high educational aspirations but are lacking academically, they must have help in developing strategies for achieving their goals (Mau & Bikos). Helping students explore academic and vocational options will help them develop realistic goals for their future. If there are extra barriers for students who have high educational aspirations, those adolescents may consider

education programs outside of the regular school program (e.g., Upward Bound or other

Federal Government programs; Mau & Bikos).

Parental influence interventions. Parental encouragement is a powerful way to

intervene between SES background, intelligence of the child, and their educational

aspirations (Sewell & Shah, 1968). Support and positive expectations from parents are

important keys for influencing college aspirations (Wahl & Blackhurst, 2000). Hossler

and Maple (1993) found that expectations from parents were part of a small group of

variables making up the difference between those adolescents who went to college and

those who did not. Crosnoe and Elder (2004) claim that it is academically problematic for

adolescents to lack a close parental relationship with their parents.

When parents demonstrate high positive educational aspirations for their children

and they believe in their children and act on that belief, they are able to help their

children achieve academically and raise their children's academic and occupational

sights (Bandura et al., 1996). Adolescent intellectual development may also be affected

by parents' high educational aspirations for them and their belief that they can contribute

to their children's education (Bandura et al.). This happens when parents show teachers

the importance they place on education and support their children within the school

system. Parent's positive participation in the educational process can increase teachers'

educational commitment to their children. Children whose parents show high academic

expectations to the school system are usually placed in more difficult academic courses

(academic tracks) and achieve greater academic progress (Bandura et al.).

Bandura and colleagues (1996) do not agree that promoting academic

achievement is restricted to parents of high socioeconomic status (SES). Their opinion is

backed up by the many children from low-income homes who go on to college and have professional careers. Bandura colleagues believe that parents of these families might not be able to provide the essential resources and educational skills. However, because they highly value education they play a key role in preparing the way for their children's educational development while young. These children learn to value academics because of their parents and those values are further developed by others around them (Bandura et al.).

Parents' belief in their ability to advance their children's ability to learn or be taught also raises educational aspirations for their children. Parents aspirations are positively linked to all three forms of their children's self-efficacy (or belief that their actions enable them to achieve desired results), academic, social, and self-control (Bandura et al., 2001). Kenny et al. (2003) found that students who perceived higher levels of support from family and others within their surroundings maintained more positive attitudes about the value of education and their fit in the school environment. They also reported that they were more likely to do homework, go to class, and pay attention while there. They also viewed work as an important aspect in their lives, aspired to leadership in their fields, and expected that their career plans would lead to success and satisfaction in their future careers. When adolescents felt supported they were more engaged in both their educational and vocational aspirations (Kenny et al.).

Parents may also influence their children by not only having high aspirations for their children, but by also having high educational aspirations and accomplishments themselves. Taylor and Krahn (2005) found that high parental education and aspirations explained a visible effect on university aspirations for their children. Educational values

that were promoted within families appeared to have left a mark on the youth of those families (Taylor & Krahn). Garg et al. (2007) found in their research that family involvement and background factors predicted educational aspirations through academic self-concept. This is to say that family background and involvement heavily influence academic self-concept and that academic self-concept significantly influences and even in Garg et al.'s research family background could predict one's educational aspirations.

Peer interventions. Peers and parents play an important role in shaping adolescents' educational aspirations and attitudes toward schooling (Buchmann & Dalton, 2002). Parents, peers, and teachers mediate the effects of educational and occupational attainment. Buchmann and Dalton stated that the consensus among researchers over time has been that peers and parents appear to mold ambitions more directly and with a bigger impact than any other source). Findings from Garg et al. (2007) demonstrated that academically oriented peers were extremely beneficial in raising educational aspirations for adolescents from single-parent families.

Interpersonal adolescent relationships (like those of adolescents and their parents, peers, and teachers) have potential to influence educational motivation. Significant relations have been found of positive aspects of motivation and students opinions of care and support from parents, teachers and peers. Wentzel (1998) found that highly motivated students are simply those who are well-adjusted and enjoy supportive with parents, peers, and teachers (Wentzel).

School system interventions. Throughout the educational literature parents and peers have surfaced as the strongest shapers of educational aspirations for students, but teachers are very influential as well (Buchmann & Dalton, 2002). Conceivably, the most

significant implication of past research literature for high school career guidance

programs is that school counselors and other school employees must persistently support

students pursuing a wide variety of postsecondary options. Among minority students with

high academic aspirations there tends to be a dearth of realistic information about

college. There also seems to be a mismatch of educational aspirations and academic

preparation (Wahl & Blackhurst, 2000).

   Wahl and Blackhurst (2000) explain that helping students prepare to make wise

informed career choices is a developmental process that spans the kindergarten through

high school graduation time frame. Counselors and other school staff must have up to

date information and knowledge about the developmental needs of the students at their

school, cultural values, career and job market trends, and postsecondary educational options.

Role models as an intervention. Role models are peers or adults with whom adolescents relate well with and who set the norms for behavior and achievement to which the adolescents aspire to. Adolescents normally face uncertainty about possible benefits of additional education. Role models during times of uncertainty serve as a way to minimize their uncertainty (Nixon & Robinson, 1999). Nixon and Robinson continue to explain that the extent of the effectiveness of a role model depends on how closely an adolescent can identify with them and how easily the adolescent can envision themselves achieving what their role model has been able to achieve (Nixon & Robinson). The more often those adolescents interact with possible role models the more likely he or she is to select one who will raise their confidence and lessen their uncertainty about the benefits of further education.

Support of Educational Aspirations
in the GEAR UP Program

Parental support. Parents of GEAR UP adolescents are encouraged to support students to have high educational aspirations. Many parents sign their adolescent children up for the GEAR UP program because they have high educational aspirations for their child. GEAR UP is a program to help adolescents prepare for future education. In order to sign up and become a member of the GEAR UP program there are requirements. One such major requirement is that anyone who signs up for GEAR UP must be focused on post high school education. That is the whole focus or the program including the programs specifically for the parents of the adolescents in the program.

Peer support. Peers are also a major part of the GEAR UP Program. All adolescents in the school system that fit the program requirements can be part of the GEAR UP Program. Because of that, many friends who have similar backgrounds and interests will sign up for the program together. The most noticeable success is when friends sign up together and work towards their goals together or when individuals sign up and then peers become friends. They can lean on the support of each other as they continue on in the program.

School system support. The supervisors and tutor/mentors in the GEAR UP Program are trained in order to disseminate correct and realistic information about higher education to the adolescents. The liaisons (who are fulltime staff members at the school sites) are also trained and give extra care and attention to the adolescents in the program. The GEAR UP staff at each school site work together to learn about their developmental needs of each adolescent, their cultural values, career and job market trends, and postsecondary educational options for the students and then share that information with the adolescents in the program.

Role models as a support. GEAR UP Program supervisors and tutor/mentors are college students from a similar background as the adolescents in the program. For that reason they act as role models for the adolescents' (in the GEAR UP Program). They can relate to the adolescents who come from lower socioeconomic backgrounds and the adolescents can relate to them. The adolescents can look to them and know that if their GEAR UP supervisor and tutor/mentors could work towards achieving the educational and occupational goals so can they. The adolescents in the program can have one on one time with their role models and find out about how they are accomplishing their goals

and because of this the GEAR UP staff members who serve as role models for the

adolescents in the program, can raise their confidence and lessen their uncertainty about

the benefits of further education.

These views help enhance understanding of the importance of cognitive

autonomy, adolescent identity, future orientation, and educational aspirations to

adolescents. These views also show that past interventions are not enough to help low-

income students improve in these four areas of development. From the literature it is

evident that the adolescents who receive the educational intervention will be affected in

these four areas development.

Literature Review Summary

The usefulness of advanced education as a path to self-sustaining employment has

been established by decades of educational and economic research (London, 2006). Few

low-income students choose to attend colleges and universities (King, 1996). Once low-

income students are enrolled in college they face many challenges and are less likely to

attain a degree (Corrigan, 2003).

Sanoff and Powell (2003) found that many of students, especially those coming

from low-income backgrounds, are unprepared academically for higher education. Many

of these students come from backgrounds where higher education aspirations are not

normal or they lack the information they need to gain access to higher education (Sanoff

& Powell).

The purpose of this study was to investigate the effect of an awareness readiness

educational intervention (the GEAR UP program; a program which prepares low-income

adolescents for postsecondary education and assists them in gaining the information they will need to gain access to higher education) on adolescent cognitive autonomy, identity, hope, and educational aspirations. The goal was to advance the base of knowledge related to this awareness and readiness educational intervention and these areas of adolescent development.

CHAPTER III

METHOD

Subjects

Sample 1

The first sample was made up of 38 adolescents, ages 13 to 17, from lower

socioeconomic status (SES), located in the two different school districts who participate

in the GEAR UP program and whose parents signed a consent form to allow them to be a

part of this study.

All adolescents who are a part of the GEAR UP program in these two school

districts were invited to participate in the study. However, only the adolescents who

returned their informed consent form with their parent's signature on it and were in

attendance the day of data collection were eligible to participate.

Demographic characteristics of the 38 adolescents in the first sample are as

follows; seventeen were male (44.7%), 21 were female (55.3%). Twelve students were in

the 9th grade (31.6%), 13 were in the 10th grade (34.2%), 10 were in the 11th grade

(26.3%), and 3 were in the 12th grade (7.9%). Age ranged from 13 – 17, with 1 thirteen-

year-old (2.6%), 8 fourteen-year-olds (21.1%), 7 fifteen-year-olds (18.4%), 12 sixteen-

year-olds (31.6%), and 4 seventeen-year-olds (10.5%). From the different ethnicities,

there were 8 White adolescents (21.1%), 23 Latino (60.5%), 2 Asian (5.3%), 4 Black

(10.5%) and 2 "other" (5.3%).

Sample 2

The comparison sample included 47 adolescents, ages 14 to 17. They were from various classes at one of the local high schools.

Demographic characteristics of the 47 adolescents are as follows, 20 were male, (42.6%); 27 were female (57.4%). Twenty-one students were in the 9th grade (44.7%), 17 were in the 10th grade (36.2%), 2 were in the 11th grade (4.3%), and 7 were in the 12th grade (14.9%). Ages ranged from 14-18, with 8 fourteen-year-olds (17%), 20 fifteen-year-olds (42.6%), 7 sixteen-year-olds (14.9%), 7 seventeen-year-olds (14.9%), and 3 eighteen-year-olds (6.4%). There were 35 White adolescents (74.5 %), 8 Latino (17%), no Asian (0%), 1 Black (2.1%), and 3 "other" (6.4%).

Both samples of adolescents completed four measures: CASE inventory, the Modified Extended Version of the Objective Measure of Ego Identity Status (EOMEIS), The Children's Hope Scale (CHS), and educational aspirations. The data for this study were derived from these samples.

Diagram of Research Design

This design (see Figure 1) allows for a comparison of the quasi-experimental group and the nonequivalent control group. The researcher can see if the scores changed from O1 to O2 in the quasi-experimental group as well as the difference in the scores of O1 and O2 of the quasi-experimental group and the O1 of the nonequivalent control group (a nonequivalent control group is a comparison group whose participants "appear

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┌─────────────────────────────────────────────────────────────┐
│                                                              │
│   Quasi-experimental group          O1    X    O2           │
│                                     --------------------     │
│   Nonequivalent control group                    O1         │
│                                                              │
└─────────────────────────────────────────────────────────────┘
```
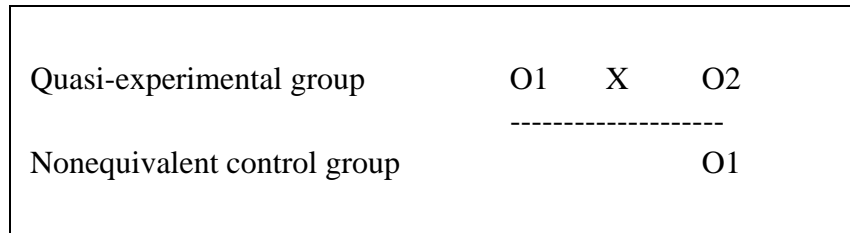
Figure 1. Nonequivalent Groups Design (Leary, 2008).

to be reasonably similar to the group that received the quasi-independent variable"
(Leary, 2008, p. 289). If the scores change between the two testing periods for the quasi-
experimental group there is some confidence that this change is due to the independent
variable (Leary). If the two groups are similar near the end this gives confidence to the
researchers that the independent variable may be responsible to bring the quasi-
experimental group closer to the average adolescent from the nonequivalent control
group.

Threats to Internal Validity

The three greatest threats to internal validity of this study were biased assignment
of subjects, experimental confounds, and local history effects. These are common threats
among research in the social science realm. However, they are still threats to the validity
of this study and require an explanation.

Biased Assignment of Subjects

Adolescents who participated in this study could not be randomly assigned to different groups and therefore, there was a possibility of biased assignment of subjects. Adolescents were self selected and not randomly assigned to be a part of the educational intervention, this also remains a point of weakness.

Experimental Confounds

The educational intervention in this study was offered by multiple people (e.g., different supervisors and staff at different schools) and this may have lead to experimental confounds. The people offering the intervention likely had different perspectives on how to best offer the intervention at the school where they were.

Local History Effect

This threat may have occurred to one or both of the groups in this research study. Local history effect happens when there is some event that happens to one of the groups that does not happen to the other (Leary, 2008). There is no way to control for this threat. The groups are different from the beginning and there is no way to make them exactly the same.

Even though the nonequivalent groups design does not eliminate all internal threats to validity. This design is most susceptible the threats mentioned above, but "with proper controls and measures, this design can offer useful information about real-world problems" (Leary, 2008, p. 291).

Description of Measures

Four different measures were used in this study: the Cognitive Autonomy and Self-Evaluation (*CASE*) inventory, the Modified Extended Version of the Objective Measure of Ego Identity Status (EOMEIS), The Children's Hope Scale (CHS), and a measure of educational intentions. All four of these measures were contained in a 12-page questionnaire, which also included eight demographic questions (see appendix A).

CASE Inventory

The CASE inventory is a 27-item instrument used to measure independent thought, or cognitive autonomy. Using a 5-point likert scale this measure assesses five autonomous areas of cognition including evaluative thinking (8 items), voicing opinions (5 items), decision-making (6 items), self-assessment (3 items), and comparative validation (5 items; Beckert, 2007). Items for these five autonomous areas are found throughout the CASE inventory. Example items from the evaluative thinking subscale include, "I evaluate my daily actions" and "I like to evaluate my thoughts." Sample items from the voicing opinion subscale include, "If I have something to add to a class discussion I speak up" and "I feel my opinions are valuable enough to share." Decision-making items from CASE inventory include, "My decision-making ability has improved with age" and "There are consequences to my decisions." Sample items from the self-assessment subscale are, "I am good at identifying my own strengths" and "I am best at identifying my abilities." A couple of comparative validation items from the CASE inventory are, "I need my views to match those of my parents" and "It is important to me that my friends approve of my decisions."

There has been much research done to address adolescent autonomy. Behavioral and emotional forms of autonomy have been the focus of this research for quite some time. However, cognitive autonomy, the ability to think for oneself, is a relatively new idea for researchers (Beckert, 2007). Because of the innovative nature of this approach, and the difficulty in measuring it, existing research is scant.

Contributing to this lack of understanding are the methodological limitations to cognitive autonomy. The CASE inventory is a new measure of cognitive autonomy. It has not been possible to examine the development of cognitive autonomy until recently, perhaps a result of the limited measuring devices available and mentioned (Beckert, 2007).

The CASE inventory is an appropriate measure for this research because it appears to measure the ability to think for oneself. Independent thought is one of the variables being assessed in this research. The CASE inventory made it possible to examine differences in cognitive autonomy between individuals receiving the intervention (GEAR UP) and those who do not.

The Cronbach alpha coefficient of .80 was reported from one field sample of 161 high school students (Beckert, 2007), indicating an adequate level of internal consistency. As a general rule, a coefficient of .70 or greater is considered a relatively high correlation indicative of adequate inter-item reliability (Leary, 2004, p. 66). Eighty percent represents true score variance leaving just 20% as measurement error. In another study, the reliability scores of the 27 items were considered again. The overall alpha coefficient for the scores from this sample was .85 (Beckert).

Another study demonstrated construct validation. Scores from adolescents at different ages were assessed and, as expected, scores on CASE inventory generally differs across grade level for each subscale. On two of the subscales, decision-making and evaluative thinking, college students scored significantly higher than the high school and middle school students. Scores for high school juniors were significantly higher than the seventh-grade participants (Beckert, 2007).

Modified EOMEIS

The Modified 40-item Extended Version of the Objective Measure of Ego Identity Status (EOMEIS) was used to measure identity development. Similar to the original EOMEIS, the modified version includes subscales that measure Marcia's identity statuses; namely, achievement, foreclosure, moratorium and diffusion. Each participant is asked to complete the Modified EOMEIS questionnaire recording their responses on a 6-point Likert scale ranging from 1 = *strongly agree* through 6 = *strongly disagree*. Participants receive a score for each of the four identity statuses (Akers et al., 1998). The Modified version contains questions about the subject's views towards education, dating, occupation, friendship, and philosophical lifestyle.

Sample items from the achievement subscale are, "I have tried numerous recreational activities and have found one I really love to do by myself or with my friends " and "After a lot of self-examination, I have established a very definite view on what my own lifestyle will be." A couple of items from the moratorium subscale are, "Religion is confusing to me right now. I keep changing my views on what is right and wrong to me" and "While I don't have one recreational activity that I'm really committed to; I'm experiencing numerous activities to identify one I can truly enjoy." Some sample

items of the foreclosure scale are, "I couldn't be friends with someone my parents didn't approve of" and "My parents recreational activities are good enough for me-I'm content with the same activities." And finally, sample items from the diffused subscale; "I don't have any close friends-I just like to hang around with the crowd and have a good time" and "There is no single lifestyle that appeals to me more than another."

In the past, this measure was used in a study to assess identity similarities among adolescent friends (Akers et al., 1998). In the current study, the Modified EOMEIS was used to find out whether the educational intervention (GEAR UP) makes a difference in adolescents' identity status. This measure is appropriate to assess adolescent identity development. The modified EOMEIS is ideal for addressing the research questions of this study.

The reliability for the modified version of this measure, using Cronbach alpha coefficients, range from .71 (moratorium) to .79 (foreclosure; Akers et al., 1998). These reliability estimates compare favorably to estimates generated from the original EOMEIS (.30 to .89).

The modified EOMEIS has also demonstrated construct validity via discriminant and convergent relations between the ideological and interpersonal domains (e.g., interpersonal achievement with ideological achievement r (1419) = .47; interpersonal foreclosure with ideological foreclosure r (1419) = .52). Likewise, domains and subscales that were not related in theory were also expected to show negative or zero correlations, thus demonstrating discriminant validity (e.g., ideological achievement with interpersonal diffusion r (1419) = -.14; interpersonal achievement with interpersonal diffusion r (1419) = -.06). In two separate samples (adolescents in Arizona and Utah),

comparisons across similar identity subscales yielded positive correlations and comparisons across identity subscales that are conceptually dissimilar yielded low or weak-negative correlations (Akers, 1996). Akers work clearly supports the construct validity for the Modified version of the EOMEIS.

Children's Hopeless Scale

The Children's Hope Scale is a six-item measure designed to assess hope in children. The CHS is based on Snyder's model of hope, three items measure pathways and three items measure agency. Responses to each item are recorded on a 6-point scale that ranges from 1 = *none of the time* to 6 = *all of the time*. Samples of these pathway and agency items include "I think I am doing pretty well" and "Even when others want to quit, I know that I can find ways to solve the problem" (Edwards, Ong, & Lopez, 2007).

The development of the Children's Hope Scale was based on hope as an enduring pattern of thinking positively about the realization of goals. Children's hope has been defined as the beliefs in one's ability to produce feasible routes to goals (pathways component) and beliefs about initiating and sustaining movement toward those goals (agency component; Snyder, Hoza, Pelham, Rapoff, Ware, & Highberger, 1997).

The Children's Hope Scale (CHS) is appropriate for purposes of this study because it measures the level of hope children or adolescents have for their future. One of the purposes of this research was to assess adolescents and their hope levels before and after they have been through the educational intervention, as well as compared to a group of adolescents not receiving the educational intervention. This will show if their level of hope changes as a function of the educational intervention.

Snyder and colleagues computed reliability information for the Children's Hope

Scale. Cronbach alphas in each of the samples ranged from .72 to .86, with a median

alpha of .77 (Snyder et al., 1997). Over a one month period the test-retest correlation was

positive and significant at $r = .71$. In the study by Edwards et al. (2007) the alpha

reliability was .89.

Construct validity has been established for Children's Hope Scale. In a study

done by Snyder et al. (1997), parents rated their children on the 6-item continuum

employed for the Children's Hope Scale, based on their observations of their children.

Parents' ratings of their children's hope positively correlated with their children's actual

scores taken at the beginning of the study, $r (264) = .38$, and one month later, $r (257) =$

.37.

Further construct validity was established by correlation studies with different

measurements. Samples of the Self-Perception Profile for Children (SPP-C) positively

and significantly correlated with the scores from the Children's Hope Scale in four

different samples (except for one in 20 scores). The SPP-C allows children to rate self-

perceptions in the five areas of scholastics r (.59, .35, .57, and .48), social acceptance r

(.43, .23, .38, and .32) athletics r (.34, .26, .35, and .29), physical appearance r (.46, .22,

.00, and .29), and behavioral conduct r (.41, .27, .34, and .40; Snyder et al., 1997).

Construct validity was also shown in the area of depression through the Child

Depression Inventory (CDI). Researchers predicted that children with higher scores on

the Children's Hope Scale should report less depression in their lives. The prediction was

correct, higher scores on the Children's Hope Scale correlated negatively with scores on

the Child Depression Inventory (CDI) OK Pre, $r (345) = -48$ (the pre sample from

Edmond, OK); PA1 $r (162) = -.27$ (boys in a research study, ages 7-13 diagnosed with

ADHD); PA2 *r* (71) = -.40 (nonreferred control boys similar in age with the PA1 group;

Snyder, 1997).

Discriminant validity was also demonstrated by comparing two hope-related

measurements, the Children's Hope Scale and Hopelessness Scale. The Hopelessness

Scale measures the degree to which children have negative expectancies about their self

and the future. Snyder et al. (1997) predicted that scores would show slightly negative

correlations with scores of the Children's Hope Scale. Results demonstrated the

hypothesis to be true, the sample scores were negatively correlated, although not

reaching statistical significance, *r* (35) = -.18 and *r* (13) = -.24, respectively.

Educational Aspirations (EA)
Self-Report Measure

This single item measure was designed for this study, to be used as a

questionnaire in a Likert scale format. The intent of the measure was to find out the

adolescents' educational intentions or to what extent they aspire in their education. The

questionnaire includes the following question: "In terms of your future education, (mark

all that apply to you). I plan to: graduate from high school; attend specialized training

(less than 2 years; example: business school or cosmetology); attend a technical school or

apprenticeship program (*examples*; carpentry, nurses assistant); attend military training

or Officers school; attend some college classes at a community college; graduate from a

2-year/community college program; attend a university; graduate from a 4-year or

bachelor's degree college program; graduate with a master's degree; complete a

professional graduate degree program (examples: a doctorate program, law school

program or medical school program) at a university." Adolescents taking the survey mark

the sentences that apply to their educational intentions. Each mark will raise their score and higher scores indicate greater aspirations for the education level listed.

This measure had two purposes. The first intent of this measure was to quantify the educational intentions of adolescents who received an educational intervention at two separate times and compare the difference of the two findings. The other purpose was to compare those results to adolescents who did not receive the educational intervention. Because of this intent, this measurement was an appropriate aid. This measure also appears to measure what it was intended to measure, thus demonstrating face validity (Leary, 2008).

<div align="center">Procedures</div>

Pilot Tests

The first pilot test was given in a city library. Three 12-year-old males participated. The test took approximately 25 minutes for all the participants to complete. Minor changes were made to the survey due to misunderstandings and confusion of the participants of the pilot test. Specifically, the following changes were made. For questions 7 and 8 (1st page) the response option: "More than 10-6 hours" was changed to "More than 10 hours." For question 3 (page 5), the words "look for" were replaced by the words "learn any others." These three changes were made because the options prior were typographical errors by the researcher. Suggestions were made by the participants requesting the response options be made clearer on the modified EOMEIS scale. In response to this suggestion, back slashes were entered into the survey between each response option on the same line. Question 54 contained a typographical error which was

corrected. In order to make the directions more clear for the first hope scale (page 9) the word "check" was replaced by "mark." Also, the directions for this scale were moved so that they would be on the same page as the phrases of the scale. For the educational aspirations scale directions (page 12), the word "check" was also changed to "mark." For the purpose of better understanding the response options of the last educational aspiration option the word "PhD" was changed to "doctorate program," "JD" was changed to "law school program," and "MD" was changed to "medical school program."

The second pilot test was given to three 15-year-old females. The test took about 26 minutes. Minor changes were made on the survey due to typographical errors caught by the participants of the pilot test. These changes involved the following: In the introductory letter to students, an extra comma was omitted in the last sentence. Back slashes were entered on number 26 of the Modified EOMIES scale. The word "for" was added to question 43 of the same scale.

Researcher Information

The researcher who administered the questionnaire was the GEAR UP Program Coordinator and was well-versed on the topics of the research. Many months were spent researching and reading about the topics. Five undergraduate research assistants participated in three training sessions in order to assist in the data collection process. During the trainings the purpose of the study was explained and the process of collection was clarified. The five undergraduate students were asked to help at the GEAR UP sites during the data collection and assisted in collecting the questionnaires. By the time of the actual data collection they were familiar with the research and the procedures of data collection.

Research Procedures

Approval was received by the Institutional Review Board on September 20, 2007 (see appendix D). The informed consent forms were also approved that day in English and Spanish (see appendices B and C) and approval was given by the Principal at Logan High School in January. Undergraduate research assistants were trained about the questionnaire, its purpose and its importance.

The researcher visited all five Utah State University GEAR UP sites and explained the research project to the adolescents during the GEAR UP after school program. The researcher handed out informed consent forms to each student and left extra copies with the GEAR UP site supervisor at each GEAR UP site. The informed consent forms were to be signed by a parent or guardian. The researcher explained the day she would return to each site to administer the questionnaire to the GEAR UP participants who had returned their informed consent forms in to the site supervisor. Each participant who returned a consent form was given a small candy bar and entered their name to win in a drawing after all the questionnaires were turned at the end of the data collection (after time two). It was also explained to the participants in the GEAR UP program that the researcher would return in February and the participants would fill out the questionnaire again.

Teachers from Logan High School were contacted and gave approval for the researcher to come during class time to explain the research project. Before leaving, a copy of the informed consent form was given to each student and extra copies were given to the teacher for absent students. The researcher explained the research study, and also when she would return to the class to administer the questionnaire to all students who had

returned their informed consent forms to the teacher. Each participant who returned a consent form was given a small candy bar and entered their name to win in a drawing after all the questionnaires were turned in.

A researcher administered the perspectives on education survey with our different measures: the 37-item Cognitive Autonomy and Self-Evaluation (*CASE*) inventory, the 40-item Modified Extended Version of the Objective Measure of Ego Identity Status (EOMEIS), the 6-item Children's Hope Scale (CHS), and a measure of educational aspirations during the GEAR UP program or class time as provided by the teacher. Directions were provided in written form and verbally explained before the questionnaire was passed out. The researcher read the cover page and the letter of the questionnaire to the students. The participants were told that the questionnaire was about their opinions and beliefs on education. They were told not to talk to each other as they filled out the questionnaire but that they could ask the researcher what certain words meant. They were told to double-check and make sure they answered all the questions before they turned the questionnaire in to the researcher.

Each student was given a questionnaire form to fill out. The students turned in their finished questionnaires to the researcher. The researcher remained in the classroom to answer any questions the respondents had concerning the measurement tools. The quickest participant was done filling out the questionnaire in 7 minutes and the longest a participant took was 30 minutes, the mean time to complete the questionnaire was 18.83 minutes. The researcher was at the GEAR UP site or in the classroom no longer than 35 minutes.

When all the respondents finished the questionnaires, they were given their candy

bar, and had the opportunity to write their name on a paper strip for a drawing. When

everyone was finished the drawing took place. Then the data from each GEAR UP site

and Logan High classes were all kept separate and then entered into a computer program.

CHAPTER IV

RESULTS

Adhering to the procedures described in the Methods section, the resulting data were examined statistically. The purpose of this examination was twofold; to examine the psychometric properties of the measures and to summarize the statistical analysis used to address the research questions.

Psychometric Properties of the Instruments

CASE Inventory

Reliability. Cronbach alpha coefficients were used to assess the internal consistency of the CASE subscales. The CASE inventory contains 27-items, divided into five autonomy subscales: evaluative thinking (8 items), voicing opinions (5 items), decision making (6 items), self-assessment (3 items), and comparative validation (5 items; Beckert, 2007). Tables 1, 2, and 3 contain the Cronbach alpha coefficients and the interscale correlations for measures used in this study. There are three subscale coefficients for each: two were with the group of students receiving the awareness and readiness intervention (GEAR UP) measured twice; the other was the comparison group measured at time one.

Time 1, time 2, and comparison reliability. The alpha coefficients for the evaluative thinking subscale were (.74), (.79), and (.84), voicing opinions (.56), (.55), and (.65), decision-making (.65), (.47), and (.69), self assessment (.82), (.49), and (.49), and

Table 1

Reliability and Inter-scale Correlations (GEAR UP) at Time 1

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Evaluative Thinking	.74	.41	.55	.23	.19	-.27	-.20	.03	.36	-.54	-.26	-.09
2. Voicing opinions		.56	.25	.47	.05	-.17	.08	.09	.38	-.32	-.14	-.04
3. Decision-making			.65	.42	.02	-.66	-.31	.15	.46	-.67	-.44	-.06
4. Self-assessment				.82	-.03	-.16	-.18	.18	.19	-.29	-.39	.00
5. Comparative validations					.46	-.15	-.14	-.28	.15	-.03	.23	-.16
6. Achievement						.77	.36	.06	-.27	.51	.46	.10
7. Foreclosure							.75	-.14	.01	.30	.15	-.14
8. Moratorium								.54	.18	-.09	-.02	.19
9. Diffusion									.64	-.47	-.01	-.36
10. Hope agency										.76	.56	.05
11. Hope pathways											.68	-.05
12. Educational aspirations												*

*There is no alpha correlation coefficient for the Education Aspirations measure

Table 2

Reliability and Inter-scale Correlations (GEAR UP) at Time 2

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Evaluative thinking	.79											
2. Voicing opinions	.36	.55										
3. Decision-making	.59	.54	.47									
4. Self-assessment	.40	.53	.43	.49								
5. Comparative validations	.38	.39	.49	.30	.61							
6. Achievement	-.26	-.35	-.34	-.50	-.47	.71						
7. Foreclosure	-.39	-.19	-.19	-.21	-.52	.52	.84					
8. Moratorium	-.21	-.37	-.22	-.16	-.22	.12	.41	.67				
9. Diffusion	-.12	-.03	.12	-.02	-.05	.04	.41	.36	.69			
10. Hope agency	-.08	-.42	-.35	-.31	-.28	.39	.24	-.12	-.20	.56		
11. Hope pathways	-.32	-.52	-.37	-.48	-.22	.41	.34	.01	.05	.52	.65	
12. Educational aspirations	.07	-.33	-.35	-.38	-.34	.35	.07	.05	-.17	.45	.18	*

*There is no alpha correlation coefficient for the Education Aspirations measure

Table 3

Reliability and Inter-scale Correlations (Comparison) Measured at Time 1

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Evaluative thinking	.84	.35	.45	.50	.14	-.17	.10	.03	.20	-.20	-.41	-.13
2. Voicing opinions		.65	.31	.41	.02	-.07	.22	.22	.21	-.35	-.42	-.03
3. Decision-making			.69	.37	-.02	-.12	.10	.01	.33	-.45	-.41	-.22
4. Self-assessment				.49	.15	-.25	-.16	.08	.14	-.48	-.61	-.10
5. Comparative validations					.67	.10	-.42	-.43	-.19	.05	-.04	-.01
6. Achievement						.70	.31	-.09	-.09	.23	.40	-.09
7. Foreclosure							.75	.34	.21	.01	.22	-.24
8. Moratorium								.76	.37	-.32	.00	-.21
9. Diffusion									.61	-.29	-.27	-.29
10. Hope agency										.62	.61	.31
11. Hope pathways											.68	.20
12. Educational aspirations												*

*There is no alpha correlation coefficient for the Education Aspirations measure

comparative validation (.46), (61), and (.67).

The CASE also demonstrated construct validity through convergent relations. High correlations were found between the subscales for CASE (evaluative thinking, voicing opinions, decision-making, self-assessment, and comparative validations). For example, the time one and two GEAR UP group and the comparison group correlations between evaluative thinking and decision-making was ($r = .55$), ($r = .45$), and ($r = .59$), respectably. One would also expect that there would be a positive correlation between evaluative thinking (one's ability to evaluate thought and make logical inferences) and decision-making. There is also a strong correlation between decision-making and self-assessment at GEAR UP time 1 ($r = .42$) and time one ($r = .43$) and the comparison group time 1 ($r = .37$). This would also be expected since self-assessment (or self-reflection) gives way to decision-making. If one has done a self-evaluation or assessment, they may more readily make decisions for themselves.

Modified EOMEIS

Reliability. Internal consistency for the Modified EOMEIS was assessed by Cronbach alpha coefficients. The Modified EOMEIS contains 40 items, and similar to the original EOMEIS it is divided into four subscales that measure Marcia's identity statuses: achievement, foreclosure, moratorium and diffusion. Cronbach alpha coefficients and the interscale correlations found in this study are shown in Tables 1, 2, and 3. There were three sets of subscale coefficients for this study. Two of these subsets were from the group of adolescents receiving the awareness and readiness intervention (GEAR UP) measured (time 1 and time 2) and the other was the comparison group

measured (time 1).

   Time 1, time 2, and comparison reliability. The alpha coefficients for

achievement were (.77), (.71), and (.70), foreclosure (.75), (.84), and (.75), moratorium

(.76), (.67), and (.54), and diffusion (.64), (.69), and (.61). These estimates compare

favorably to the alpha coefficients from .71 (moratorium) to .79 (foreclosure) as reported

by Akers et al. (1998), which compared favorably to estimates generated from the

original EOMEIS (.30 to .89).

   Validity. The modified EOMEIS demonstrated construct validity in this study via

discriminant and convergent relations. These correlations were found among the

Modified EOMEIS subscales and those of other measure's subscales (correlations found

on Tables 1 and 2).

   Diffusion (a Modified EOMEIS subscale) was found to be negatively correlated

with hope agency (a subscale of the CHS) at ($r = -.47$) for the adolescents receiving the

awareness readiness intervention (GEAR UP) on time one, ($r = -.17$) for GEAR UP

adolescents on time two, and ($r = -.29$) for the comparison group on time one. Diffusion

had a negative correlation with hope pathways (the other subscale of the CHS) and

demonstrated no relation on the other two correlation coefficients. Diffusion and hope

pathways correlation coefficients were ($r = -.01$) for the GEAR UP time 1, ($r = .05$) for

the GEAR UP time 2, and ($r = -.27$) for the comparison group time 1. These correlations

would be expected. Diffusion is the state of identity when people are not exploring and

have few commitments (Marcia, 1966). Hope agency cognitions are thoughts which an

individual has regarding their ability to begin and continue movement toward their

goal(s). Hope pathways are an individual's capacity to create cognitive routes to their

desired goals (Snyder et al., 2002a). So a person who is identified as diffused would not

be committed to any type of goal or motivated to move toward a goal or create a route to

that goal.

Interestingly enough, moratorium and diffusion are both identity stages when

people are not yet fully committed to a set of beliefs, values, and goals, but are exploring

their options (Marcia, 1966). So because people in these stages are not committed to a set

of beliefs, values, and goals it would be expected that this subscale would also negatively

correlate with hope agency. The correlations for hope agency and moratorium were

found to be (r = -.09) for the GEAR UP time 1, (r = -.12) for the GEAR UP time 2, and (r

=

-.32) for the comparison group time one and the correlations for moratorium and hope

pathways were found to be not linearly related at all, for the GEAR UP time 1 (r = -.02),

for the GEAR UP time 2 (r = .01), and for the comparison group time 1 (r = .00).

Squaring these correlations calculates the coefficients of determination and all three of

these correlations share 0% variability (i.e., 0% of the variation in moratorium is

accounted for in the hope pathways variable).

Convergent relations were also found between the Modified EOMEIS and CHS

subscales. People who are identity achieved have explored and are dedicated to a set of

beliefs, values, and goals and those who are identity foreclosed are individuals who are

very committed, but have not considered other ideas. People in both of these stages are

very committed to a set of values, beliefs, and goals. If the correlations of these two

subscales were observed with hope agency and pathways, it is expected that there would

be a positive correlation among the subscales. This is because hope agency is an

individual's ability to begin and continue movement toward one's goal(s), and hope

pathways are an individual's capacity to create cognitive routs to one's desired goals

(Snyder et al., 2002a). The identity achievement subscale was found to correlate with the

hope agency and hope pathways subscales. Correlations were found for the adolescents

participating in the awareness readiness intervention (GEAR UP) at time 1, time 2, and

then for the comparison group at time 1 respectively: ($r = .51$), ($r = .39$), and ($r = .23$)

and the hope pathways subscale at ($r = .46$), ($r = .41$), and ($r = .40$). The identity

foreclosure subscale was also found to correlate with the hope agency and hope pathways

subscales. Foreclosure and hope agency subscale correlations were ($r = .30$), ($r = .39$),

and ($r = .01$) and the foreclosure and hope pathways subscales correlated at ($r = .15$), ($r = .34$), and ($r = .22$). These divergent and convergent relations demonstrate construct

validity for the modified EOMEIS measure.

The Modified EOMEIS also demonstrated construct validity through correlations

within the subscales. Generally one would expect to see the scores from the achievement

and foreclosure subscales correlate and the scores from the diffusion and moratorium

subscales to correlate. As was expected, correlations between foreclosure and

achievement for time 1 and 2 of the GEAR UP group and time 1 from the comparison

group were ($r = .36$), ($r = .52$), and ($r = .31$). Also as was expected, correlations between

diffusion and moratorium for time 1 and 2 of the GEAR UP and time 1 for the

comparison group was ($r = .36$), (r = .18), and ($r = .37$).

Children's Hopeless Scale

Reliability. The Children's Hope Scale (CHS) was assessed using Cronbach alpha

coefficients to determine internal consistency for its subscales. The CHS contains six-items divided into two subscales: three items that measure agency and three items that measure pathways. Cronbach alpha coefficients and interscale correlations are found in Table 1 and 2. Three subscale coefficients were found for this study. Two subscale coefficients were from the GEAR UP intervention group (time 1 and time 2) and the other subscale coefficients are from the comparison group (time 1).

Time 1, time 2, and comparison reliability. The alpha coefficients for hope agency were (.76), (.56), and (.62) and for the hope pathways (.68), (.65), and (.68). Compare this with findings by Snyder (1997) Cronbach alphas in each of the samples ranged from .72 to .86, with a median alpha of .77. In the study by Edwards et al. (2007) the alpha reliability was .89. The estimate found in this study were not quite as high.

Validity. Construct validity was demonstrated for the CHS measure through convergent and divergent relations. Hope agency was found to be negatively correlated with diffusion at ($r = -.47$) for the GEAR UP time 1, ($r = -.17$) for the GEAR UP group time 2, and ($r = -.29$) for the comparison group time 1. Hope pathways also negatively correlated with diffusion ($r = -.01$) GEAR UP time 1, ($r = .05$) GEAR UP time 2, and ($r = -.27$) comparison time 1. These correlations would be expected since diffusion is the state of identity where people are not exploring and have few commitments (Marcia, 1966) and hope agency cognitions are thoughts which an individual has regarding their ability to begin and continue movement toward their goal(s) and hope pathways are an individual's capacity to create cognitive routs to their desired goals (Snyder et al., 2002a). So a person who is motivated or goal-oriented with high scores on the hope pathways and agency subscales would usually be a committed person who would not be

diffused. The same is true for people who would likely have high scores on the hope

agency and pathways would also correlate negatively with moratorium.

Moratorium is similar to diffusion in that people in moratorium are exploring

their options and are not completely committed to a set of beliefs and values (Marcia,

1966). Someone with high levels of hope agency or pathways would be expected to

commit to a set of beliefs, values, and goals (which does not describe people in

moratorium) so the hope agency and pathways scores would be expected to also

negatively correlate or show no linear correlation with moratorium. The correlations for

hope agency and moratorium were found to be ($r = -.09$) GEAR UP time 1, ($r = -.12$)

GEAR UP time 2, and ($r = -.32$) comparison time 1. When these coefficients are squared

it is found that 1 – 10% of the variability is explained for hope pathways subscale by the

moratorium subscale. The correlations found for identity moratorium and hope pathways

demonstrated no linear correlation, they were ($r = -.02$) for the GEAR UP time 1, ($r = .01$) for the GEAR UP time 2, and ($r = .00$) for the comparison group time 1. The

variability shared between these two subscales by calculating the coefficient of

determination is 0%.

Convergent relations were also found between the CHS and Modified EOMEIS.

People who have high levels of hope agency and hope pathways would likely be very

committed to a set of beliefs, values, and goals. Individuals in the identity achieved status

have explored and are dedicated to a set of beliefs, values, and goals, and those who are

identity foreclosed are individuals who are very committed, but have not considered

other ideas. People in both of these stages are very committed to a set of values, beliefs,

and goals. When the correlations of these two subscales (achievement and foreclosure)

were correlated with hope agency and pathways it is expected that there would be a positive correlation among the subscales. This is because hope agency is an individual's ability to begin and continue movement toward one's goal(s) and hope pathways are an individual's capacity to create cognitive routs to one's desired goals (Snyder et al., 2002a). The achievement subscale was found to correlate with the hope agency subscale ($r = .51$) on the GEAR UP group at time 1, ($r = .39$) for the GEAR UP group at time 2, and ($r = .23$) for the comparison group at time 1. Identity achievement subscale was also positively correlated with the hope pathways subscale at ($r = .46$) time one GEAR UP group, ($r = .41$) time two GEAR UP group, and ($r = .40$) time one comparison group. The identity foreclosure subscale was also found to positively correlate with the hope agency subscale ($r = .30$) GEAR UP group time 1 and ($r = .24$) GEAR UP group time 2. The identity foreclosure subscale was also found to be positively correlated with the hope pathways subscale at ($r = .15$) for the GEAR UP group at time 1, ($r = .34$) for the GEAR UP group at time 2, and ($r = .22$) for the comparison group at time 1. These divergent and convergent relations demonstrate construct validity for the CHS measure.

Construct validity for CHS is also demonstrated through convergent relations within the CHS the two subscales (hope agency and hope pathways). Hope agency and pathways highly correlate with each other (since they are measuring similar concepts). The correlations for these two subscales were ($r = .56$) for the GEAR UP group time 1, ($r = .52$) for the GEAR UP group time 2, and ($r = .61$) for the comparison group time 1.

Educational Aspirations Validity

The Educational Aspirations (EA) self-report measure was also found to

demonstrate construct validity through divergent relations. Identity was found to negatively correlated with the educational aspirations measure ($r = -.29$) GEAR UP group time 1 and ($r = -.36$) comparison group time 1. This would be expected since those who are in the identity diffusion stage are not exploring and have few commitments (Marcia, 1966). This would correlate negatively with EA because those with high scores on this measure would most likely have high educational aspirations. Those with higher educational aspirations would tend to explore more and commit themselves to some set of goals, beliefs, or values about their education.

Construct validity was demonstrated through correlations with the other subscales as well. Every other score on the GEAR UP group time one besides the identity diffusion subscale correlated with educational aspirations between ($r = -.16$) to ($r = .19$). This demonstrates 3 to 4% variability shared by the Educational Aspirations self-report measure and the other subscales in this study. Besides the correlation with identity diffusion ($r = -.36$) on GEAR UP group time one and ($r = -.29$) on comparison group time one, educational aspirations did not linearly correlate with any of the other subscales. This demonstrates that the educational aspirations measure is possibly measuring something completely different than the other measures used in this study.

The CASE inventory demonstrated adequate reliability. The measurement was also found to demonstrate construct validity through its convergent relations. This measure yielded high correlations between the subscales (evaluative thinking, voicing opinions, decision-making, self-assessment, and comparative validations). The modified EOMEIS demonstrated reliability estimates which were comparable to reliability found in past studies. This measure also demonstrated construct validity through divergent and

convergent relations between its own subscales and the CHS subscales. The CHS

demonstrated adequate reliability. This measure demonstrated construct validity via

divergent and convergent relations with the Modified EOMEIS subscales as well as

convergent relations between the measures own two subscales. The Educational

Aspirations self report measure demonstrated construct validity through divergent

relations with an identity subscale (diffusion) and with all the other subscales from the

measure. The measures in this study were comparable to post studies using these same

measures, so for the purposes of this study the measures used were found to demonstrate

adequate reliability and validity.

<div align="center">Descriptive Statistics</div>

Table 3 summarizes the descriptive statistics from this study. The sample on the

pretest for the GEAR UP group was $N = 38$. The sample for the posttest for the GEAR

UP group was $N = 37$. The sample for the comparison group pretest was $N = 47$. Means

and estimates of variability (standard deviation and range) are presented for all measures

in Table 3.

<div align="center">Research Questions</div>

In this section each research question is re-stated. The method of statistical

analysis and results are then portrayed for all statistical comparisons. From this study the

answers to the research questions are clearly stated; however the conclusion and

interpretations of the results are presented in Chapter V.

Table 4

Descriptive Statistics for Measures

| | GEAR UP | | | | | | | | Comparison | | | |
| | Time 1 | | | | Time 2 | | | | Time 1 | | | |
Variable	*N*	$\bar{x}$	*SD*	Range	*N*	$\bar{x}$	*SD*	Range	*N*	$\bar{x}$	*SD*	Range
Evaluative thinking	38	20.26	5.38	21	36	19.97	4.85	23	47	21.70	5.5	24
Voicing opinions	38	13.29	3.07	14	37	12.54	3.11	13	47	11.72	2.30	13
Decision making	38	12.58	2.94	12	37	12.89	3.04	12	47	12.43	3.38	16
Self-assessment	38	8.11	2.46	11	36	7.44	1.89	9	47	7.85	2.54	11
Comparative validations	38	15.31	3.23	15	37	15.08	3.18	12	47	15.21	2.91	14
Achievement	38	39.45	8.00	40	37	41.25	6.88	25	47	38.62	6.98	29
Foreclosure	38	31.42	8.19	32	36	32.94	9.56	38	47	31.91	7.73	36
Moratorium	38	37.00	6.14	34	36	37.00	6.81	28	47	36.55	6.70	29
Diffusion	38	29.26	7.57	33	36	31.03	7.69	36	47	28.49	7.81	39
Hope agency	36	11.97	3.58	13	37	12.27	3.04	14	47	12.91	2.99	12
Hope pathways	38	12.21	2.97	12	37	12.86	2.97	12	47	12.36	3.29	13
Educational aspirations	38	4.63	1.96	9	38	4.03	2.09	9	47	4.34	2.06	8

Note. Sample sizes differ due to incomplete or missing data.

Research Question 1

"What is the impact of awareness and readiness educational intervention on low-

income adolescents' cognitive autonomy, identity, hope, and educational aspirations?"
This research question addresses the relationship between the awareness readiness
educational intervention and the four dependent variables; cognitive autonomy, identity,
hope, and educational aspirations. Table 4 contains the time one and time two means and
standard deviations for the adolescents who received the awareness readiness educational
intervention and the t statistic for the difference of the means between the time one and
time two.

For the CASE Inventory the means for the subscales decreased (there were
decreases in the evaluative thinking, voicing opinions, self-assessment, and comparative
validations subscales) from time one to time two. This was true for all measures except
for the decision-making subscale. The decision-making subscale increased from 12.68 to
12.98 on the posttest. The Modified EOMEIS ego identity measure subscale means all
rose (achievement, foreclosure, and diffusion) except for the mean of the moratorium
subscale. The mean for the moratorium subscale decreased from 37.14 (at time one) to
37.00 (at time two). The CHS or hope subscale means both rose. The hope agency
subscale mean rose from 12.03 to 12.27 and the hope pathways subscale mean rose from
12.30 to 12.86. The educational aspirations mean decreased from 4.63 to 4.03 (see Table
3).

Paired t tests were calculated for each of the subscales for each of the measures
and are shown in Table 4. Only one of the pairs demonstrated statistical significance at
the .05 alpha level. The educational aspirations scale score was found to decrease enough
to reach a statistically significant probability level of .048 which is below the set .05
alpha level. Possible reasons for only finding one statistically significant finding and for

finding what was found are discussed in Chapter V. However, the answer to the first

research question is that the impact of the awareness readiness educational intervention

does not demonstrate a statistically significant impact on these low-income adolescents in

this study in the areas of cognitive autonomy, identity, and hope and that this awareness

readiness educational intervention did demonstrate a statistically significant impact on

Table 5

Paired t *Test Statistics for GEAR UP for Time 1 and Time 2*

Variable	Time 1		Time 2		
	$\bar{x}$	*SD*	$\bar{x}$	*SD*	Paired *t* test
Evaluative thinking	20.14	5.44	19.97	4.85	.20
Voicing opinions	13.24	3.09	12.54	3.11	1.40
Decision-making	12.68	2.92	12.89	3.04	-.46
Self- assessment	8.06	2.51	7.44	1.89	1.50
Comparative validation	15.35	3.27	15.08	3.18	.44
Achievement	39.38	8.10	41.22	6.88	-1.68
Foreclosure	31.31	8.36	32.94	9.56	-1.20
Moratorium	37.14	6.23	37.00	6.81	.12
Diffusion	29.42	7.55	31.03	7.69	-1.37
Hope agency	12.03	3.60	12.27	3.04	-.44
Hope pathways	12.30	2.96	12.86	2.97	-1.18
Educational aspirations	4.63	1.96	4.03	2.10	2.04*

p < .05

the low-income adolescents in this study in the area of educational aspirations.

Research Question 2

The second research question dealt with the relationship between the group receiving the awareness readiness intervention (the GEAR UP group) contrasted with the comparison group. "Do the scores (from the measures identified on the self report) of the low-income adolescents receiving the awareness readiness educational intervention compare favorably to adolescents who do not receive the intervention?" Table 5 contains the means and standard deviations (on the subscales) for the adolescents who received the awareness readiness educational intervention (the GEAR UP group) and those who did not (the comparison group).

The answer to the second research question is that the time 2 scores (from the measures identified on the self report) of the low-income adolescents receiving the awareness readiness educational intervention did compare favorably to adolescents who do not receive the intervention as demonstrated by the closeness of the means. Even though the means are higher and lower for the different subscales between the GEAR UP time 2 and the comparison group time 1, the means are similar enough to be called comparable.

Summary of Findings

There were two research questions encompassed in this study. The first question sought to investigate the effect of an awareness readiness educational intervention (GEAR UP) on low-income adolescents in the human development areas of; cognitive

autonomy, ego identity, hope, and educational aspirations. The educational aspirations measure was found to be statistically significant.

The second question was to compare the means on the same human development areas (cognitive autonomy, ego identity, hope, and educational aspirations) between the group receiving the awareness readiness educational intervention (GEAR UP) and a comparison group. The means from the intervention group time 2 were found to compare favorably with the means from the comparison group.

Table 6

Comparison Group and GEAR UP Sample Means

Variable	GU Time 2		Comparison Group	
	$\bar{x}$	*SD*	$\bar{x}$	*SD*
Evaluative thinking	19.97	4.85	21.70	5.53
Voicing opinions	12.54	3.11	11.72	3.00
Decision-making	12.89	3.04	12.42	3.38
Self-assessment	7.44	1.89	7.85	2.54
Comparative validation	15.08	3.18	15.21	2.91
Achievement	41.22	6.88	38.62	6.98
Foreclosure	32.94	9.56	31.91	7.73
Moratorium	37.00	6.81	36.55	6.70
Diffusion	31.02	7.69	28.49	7.81
Hope agency	12.27	3.04	12.91	2.99
Hope pathways	12.86	2.97	12.26	3.29
Educational aspirations	4.03	2.10	4.34	2.06

CHAPTER V

DISCUSSION AND CONCLUSIONS

As stated, the purpose of this study was to better understand how the areas of cognitive autonomy, identity, hope, and educational aspirations were affected by exposure to an awareness readiness educational intervention. Two research questions guided this research: the first research question focused on change attributable to the GEAR UP intervention; the second question examined the comparison of low-income adolescents receiving the awareness readiness educational intervention (GEAR UP) to students from the same area who did not receive the educational intervention. The following discussion addresses the finding associated with the two research questions.

In the present study it was assumed that the awareness readiness intervention would have a positive impact on low-income adolescent cognitive autonomy, identity, hope, and educational aspirations. Statistical results only supported a significant finding among educational aspirations and in the unexpected direction it was not expected. However, the group receiving this awareness readiness educational intervention did compare favorably with the comparison group. Findings with respect to the two main research questions are examined in this chapter.

Research Questions

Research Question 1

Although only one mean difference was found to be statistically significant with regard to the first research question, there were small, non-significant differences in

means of the other subscales. In the area of cognitive autonomy, results demonstrated a

small decrease in four of the five subscale means from time 1 to time 2. However, none

of the mean decreases were statistically significant. In the area of identity, the

achievement mean increased slightly from time 1 to time 2, foreclosure mean from time 1

to time 2 increased slightly, the moratorium mean decreased slightly from time 1 to time

2, and the diffusion mean increased slightly from time 1 to time 2. None of the

subcategory identity means changes from time one to time two were statistically

significant. Both the hope agency and hope pathway means increased from time 1 to time

2, but again not enough to yield statistical significance. The educational aspirations

measure did show a mean decrease from time 1 to time 2. This decrease was statistically

significant at the .05 alpha level.

One explanation for this finding may be that the time 1 and time 2 measures were

given to the adolescents in the middle of the GEAR UP intervention, as opposed to a

before and after intervention test (pretest-posttest) for the adolescents. The majority of

the adolescents who were a part of the time 1 and time 2 testing had been receiving the

GEAR UP intervention for one to two years previous to the testing. The intervention

started in 2006 and more than two thirds of the adolescents who participated in the time 1

and time 2 testing had been receiving the intervention for at least a year before the time 1

test. Time 1 data were collected in October 2007 (right after the school year started), and

time 2 data were collected four months later in February 2008. So the time 1 and time 2

data provided a snapshot in time for the majority of the participants of what had already

been happening over the last year or two years.

Another possible reason for the finding may be the amount and type self-

exploration that was offered to these adolescents in this educational intervention. Raskin's (1994) research suggest self-exploration that is information-oriented is important to the process of identity formation. Raskin found that occupational choices made by individuals can only happen when a range of probable and equally attractive choices exist. The GEAR UP sites (i.e., places where the awareness readiness educational intervention was offered to low-income adolescents) did not all offer the exact same occupational or educational choices when helping the adolescents explore their future options. Some offered military information, some offered information about becoming a professor, and some offered information about becoming a pharmacist. This may constitute another reason for the findings, they may not be equally attractive choices or maybe it was that not enough occupational choices were identified and presented to the adolescents who were participating in the program.

The most likely explanation for this finding may be the space of time allowed between time one and time two (four months). Valle et al. (2006) have claimed that no matter a person's disposition or nature, changes in levels of hope are thought to happen over time through sustained or continual interventions. This may mean that the four months allowed in this study between time one and time two may not have been long enough to detect a statistically significant difference or rise in hope agency or hope pathways.

Herting and Blackhurst (2000) indicate that aspirations appear to form at very early ages, even as early as second or third grade. This may be another explanation for the findings in this study. Maybe this intervention should be done at an earlier age. Maybe adolescence is too late of a time period to start trying to increase educational

aspirations. It may be more advantageous to try to increase educational aspirations at a younger age, like second or third grade.

Research Question 2

The second research question asked if the low-income adolescents receiving the awareness readiness intervention compared favorably with the adolescents who did not receive this same educational intervention. Overall, the answer to this question was that the low-income adolescents receiving the intervention did compare favorably with the comparison group (not receiving the educational intervention) on all measures when the means are compared.

When researchers only rely on tests of statistical significance for their measure of success of interventions they might miss important social dimensions of their work (Francisco & Butterfoss, 2007). Fancisco and Butterfoss stated that one of the important social dimensions of intervention research is how the intervention affected the lives of the participants; they call this effect social validity. Social validation is the practice of evaluating the social significance of the goals, methods, and outcomes of interventions (Scholsser, 1999). Kazdin (1977) wrote of social validation being a way to evaluate whether behavior changes that took place during an intervention are important. Social validation entails two procedures (Kazdin). The procedure that is relevant to this study is the first. It is that the target participants are compared to that of their peers who have not been identified as problematic or difficult. Behavior changes can be seen as clinically important if the intervention has brought the participants' performance within the range of socially acceptable levels, as demonstrated by the comparison peer group (Kazdin).

It is because of social validation that the answer to research question two means so much in this study. The adolescents receiving the GEAR UP intervention did compare favorably with the other adolescents in the comparison group. Under the definition of social validation, that is to say that, the findings of this research or the behavior changes that were detected by this comparison demonstrate some clinical importance of this awareness and readiness intervention.

This was an expected and hoped for outcome for this research since one of the hopes of this research was to demonstrate social validation of the adolescents participating in the educational intervention. Because the adolescents who received the educational intervention compared favorably to the adolescents not receiving the intervention it can be said they were found to have comparable levels of cognitive autonomy, identity, hope, and educational aspirations.

That is to say that they are able to control their own behavior (autonomy) and that they are working towards conquering this developmental task: even as a prerequisite to adulthood (Noom et al., 2001). An autonomous individual then leads to an individual who knows their identity "The over-all contribution to an eventual identity formation is the very courage to be an independent individual (be autonomous), who can choose and guide his own life" (Erikson, 1968, p. 114). Successful identity resolution is when one finds a balance between confusion and commitment about beliefs, values, goals, and roles in society (Makros & McCabe, 2001). These adolescents appear to be on their way to doing this as well since the means of the two groups compared favorably. This demonstrates that they have similar levels of hope and educational aspirations. Hope is the enabling concept that helps people to set goals with value, see ways to achieve those

goals, and find the drive to make the goals happen (Snyder et al., 2002a). Educational

and vocational aspirations of high school students are among the most important

predictors of eventual educational achievement (Mau & Bikos, 2000).

Limitations

There were limitations to this study. Limitations that the researcher feels might

lead to a better study if the research were conducted again. Each of these limitations is

discussed in turn.

The first is something that was observed in the research. For all four areas;

cognitive autonomy, identity, hope, and educational aspirations, a parental component

was mentioned as an important part of adolescent progression. A key developmental task

of adolescence is to establish independence (or autonomy) from parents, but this

independence should develop within a supportive family environment (Crosnoe & Elder,

2004). Research has demonstrated healthy identity development emerging from a

combination of children being emotionally attached to their parents and parents working

to encourage their children's independence (Campbell et al., 1984). Neblett and Cortina

(2006) found parental support to be a moderating and direct influence on adolescents'

hope for the future. Greater support from parents was related to more positive hope for

the future among adolescents. Support and positive expectations from parents are

important keys for influencing college aspirations (Wahl & Blackhurst, 2000). Even

though the awareness readiness intervention has a parent component, the limitation of

this study was that the parent component was not pursued.

Also mentioned quite often in the literature was the involvement of the school

system, and particularly the teachers and their involvement, in adolescents' autonomy, identity, hope, and educational aspirations. Teachers offer support by instruction and they do so on a personal level. This support aids the development of autonomy (Stefanou et al., 2004). Marcia (1989) thought that one of the most useful and feasible environments to introduce identity intervention would be educational programs in junior high and high schools. School psychologists and teachers can help adolescents set goals (Snyder et al., 2003). Adolescents need encouragement to set goals for different areas of their lives, interpersonal employment, and educational goals (Snyder et al.). Throughout the educational literature parents and peers have surfaced as the strongest shapers of educational aspirations for students, but teachers are very influential as well (Buchmann & Dalton, 2002). As a part of the educational intervention there is a strong school component. The intervention is given at the adolescent's school, many teachers and counselors are involved, however just like the parent component of the intervention, there was no measure of the involvement, change, and behavior of teachers or other school professionals in this study.

The timing of when the measures were given was also a limitation. The GEAR UP intervention started in 2006 and most of the adolescents receiving the intervention are the same adolescents year after year. The data collected for this research was collected in October 2007 (time one) and then again in February 2008 (time two) this means that the research was not a true pretest-posttest design, meaning that the real effects of the before and after intervention could not be demonstrated by this study.

Since the GEAR UP intervention was established before the idea for this research came about, the adolescent participants were already a part of the intervention and

participants self-selected themselves to be a part of the intervention. This limited the

researcher from being able to make random assignments for adolescents to be a part of

the intervention or not. Even if there were a chance to make random assignments for the

intervention group, it may not be possible to ethically do so. Due to school restrictions,

the researcher was not able to include random selection for the comparison group. Thus,

this experiment was not a true experiment and this is believed to be a major limitation in

this study by the researcher.

Another limitation was the way the intervention sample of adolescents was

recruited to be a part of this study. Due to IRB restrictions the participants had to choose

to be a part of the study. The researcher felt that if they had just made the data collection

a part of the intervention many more adolescents receiving the intervention would have

participated and this would have led to a larger, more representative sample.

The educational aspirations measurement was created by the researcher and

though it demonstrated adequate reliability and validity, the researcher does not feel that

it is the best instrument to measure educational aspirations. There was no other option,

and at the time it seemed like it would work well, but it seemed to be insufficient when

pondering the results. The questionnaire read "Your Educational Plans, Directions: In

terms of your education, <u>mark all that apply</u>. I plan to: graduate from high school, attend

a specialized training (less than 2 years; example: business school or cosmetology),

attend a technical school or apprenticeship program (examples; carpentry, nurses

assistant), attend military training or officers school, attend some classes at a community

college, graduate from a 2-year/community college program, attend a university,

graduate with a 4-year or bachelor's degree college program, graduate with my master's

degree, complete a professional graduate degree program (examples: a doctorate

program, law school program or medical school program) at a university)." The scores

were based on a Guttman scale, which meant the more they marked the higher score they

got and higher scores were considered higher educational aspirations. However, the

Guttman scale may have misrepresented the results of this data. For example, if a student

marked the first and last choice (graduate from high school and complete a professional

degree program) they would only have a score of two out of ten and yet they plan to

achieve the highest level of education mentioned in the measure. This measure was likely

a limitation in the study.

Although there were limitations which were discussed in this section the results

of this study are still valuable. Even a relationship in the direction that was not assumed

or hoped for or those that are not statistically significant tells something about the

dependent and independent variables. The limitations outlined above act as cautionary

signs to the reader to interpret the results carefully. A few suggestions are provided in the

next section that could strengthen future studies on the subject of low-income adolescents

and awareness readiness educational intervention and cognitive autonomy, identity, hope,

and educational aspirations.

Recommendations for Future Research and Final Comments

Future research involving the study of low-income adolescents and awareness

readiness educational intervention (GEAR UP) and the developmental areas of: cognitive

autonomy, identity, hope, and educational aspirations should follow several

recommendations. First, because of the importance of parents and teachers on adolescent

autonomy, identity, hope, and educational aspirations, there should be a measure of

parent and teacher change and behavior. Second, a true pretest before the adolescents

receive the educational intervention would demonstrate more valid results of changes due

to the intervention. Third, it still may not be possible to randomly assign low-income

adolescents in the school systems to the educational intervention (due to restrictions by

the school district and ethics). However, if at all possible the researcher should randomly

select the adolescents for the comparison group to make the research design as close to a

true experiment as possible. Fourth, a way to increase the sample size while still

honoring the IRB and the adolescents' choice to participate in the study would be to

include other adolescents from different school districts who are also doing the same

educational intervention (GEAR UP), other statewide grant partners. Fifth, find or design

a better educational aspirations measurement, possibly a ratio level that is sensitive to

those who choose the highest educational attainment. Lastly, conduct a longer

longitudinal study with actual educational attainment information collected. This would

yield more precise results. After starting with an actual pretest before the intervention,

follow the sample of adolescents and test them each year for the six years while they are

participating in the intervention, and then test them following the intervention for a few

years. This would be an ideal opportunity to detect changes over the years and to find out

not only about the adolescents participating in the educational intervention's educational

aspirations, but about their actual educational attainment.

Cognitive autonomy, identity, hope, and educational aspirations of low-income

adolescents receiving an awareness readiness educational intervention (GEAR UP) can

be a potentially valuable study. Especially because of trends (give specifics about rising

poverty in the U.S.) and the federal and state governments who are willing to establish and sustain educational interventions like this. Information from studies like this may be valuable in identifying successful educational intervention strategies for low-income adolescents. If so, findings may provide useful information for professionals working in the education system or in other fields working with low-income adolescents (especially those working with the federal and state governments). For example, awareness readiness intervention techniques may assist in planning for and helping low-income adolescent prepare for higher education. This is an exciting area of research that has many potential benefits for the American society.

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APPENDICES

Appendix A

Questionnaire

Perspectives on Education

We, from Utah State University are interested in your beliefs and opinions about you and your education. We want to better understand the important part that educational activities play in young adults' lives.

A joint Project of
GEAR UP Program and Utah State University

Dear Student:

This questionnaire requests information about you, your independence, your future direction in life and your educational plans. We are interested in finding out about you and others your age.

We feel the best way to learn about you is by asking. Because the statements in this questionnaire are about personal feelings, attitudes, and behaviors there are no right or wrong answers. The **BEST** response to each statement is your **PERSONAL BELIEF and your EXPERIENCE.**

If you are confused by a question or do not know how to respond, please skip over it and move on to the next question. **DO NOT** ask another student what they think a question means.

By completing this questionnaire you have consented to being a participant in this research. If you have any further questions about this survey, feel free to call us at the number listed below.

THANK YOU for volunteering you time. We appreciate your honesty and thoughtfulness.

Sincerely,

Jimmy Moore   Celestial Starr Brandley
Project Director   Graduate Student
Utah State University   Utah State University
(435) 797-3963   (435) 797-1758

Directions: Questions 1 – 8 are about you. **Mark the response that best applies**.

1.   Gender   _____ Male   _____ Female

2.   Age _____

3.   Year in school _____ 8th grade   _____ 9th grade
     _____ 10th grade   _____ 11th grade   _____ 12th grade

4.   Ethnicity _____ White   _____ Black   _____ Latino
     _____ Asian   _____ Other (please specify) _____

5.   School Grades _____ above average (B's or better)
                   _____ average (mostly C's)
                   _____ below average (mostly D's)

6.   Hours spent reading per week   _____ None   _____ 1 – 2
     _____ 3 – 4   _____ more than 4

7.   Hours spent on computer per week for homework   _____ None
     _____ 0-3   _____3-6   _____ 6-10 _____More than 10

8.   Hours spent on computer per week for fun   _____ None
     _____ 0-3   _____3-6   _____ 6-10 _____More than 10

9.   Please enter your last four digits of your telephone number
     _____

Directions: For each item, circle the answer that best illustrates your thoughts today. Answer all of the questions by clearly circling one of the five response choices.

1. If I have something to add to a class discussion I speak up.

    AlwaysOftenSometimesSeldomNever

2. I think about the consequences of my decisions.

    AlwaysOftenSometimesSeldomNever

3. I look at every situation from other people's perspectives before making my own judgments.

    AlwaysOftenSometimesSeldomNever

4. When I disagree with others I share my views.

    AlwaysOftenSometimesSeldomNever

5. I need family members to approve my decisions.

    AlwaysOftenSometimesSeldomNever

6. I think of all possible risks before acting on a situation.

    AlwaysOftenSometimesSeldomNever

7. I like to evaluate my daily actions.

    AlwaysOftenSometimesSeldomNever

8. I consider alternatives before making decisions.

    AlwaysOftenSometimesSeldomNever

9. I stand up for what I think is right regardless of the situation.

    AlwaysOftenSometimesSeldomNever

10. I think about how my actions will affect others.

    AlwaysOftenSometimesSeldomNever

11. I think about how my actions will affect me in the long run.

    AlwaysOftenSometimesSeldomNever

12. I like to evaluate my thoughts.

    AlwaysOftenSometimesSeldomNever

Directions: For each item, circle the answer that best illustrates your thoughts today. Answer all

of the questions by clearly circling one of the five response choices

13. I feel that my opinions are valuable enough to share.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

14. I need my views to match those of my parents.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

15. I am good at identifying my own strengths.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

16. It is important to me that my friends approve of my decisions.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

17. There are consequences to my decisions.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

18. I can tell that my way of thinking has improved with age.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

19. At school I keep my opinions to myself.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

20. I think more about the future today than I did when I was younger.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

21. I am best at identifying my abilities.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

22. My decision making ability has improved with age.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

23. I need my views to match those of my friends.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

24. I am good at evaluating my feelings.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

25. I am better at decision making than my friends.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

26. I care about what others think of me.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

27. I am the best judge of my talents.

    Strongly AgreeAgreeNeutralDisagreeStrongly Disagree

28. If you were to rate yourself on your "independent thought" today, what score would you assign

    from 1 – 10 with ten being the most independent? _____ Score (from 1 -10).

DIRECTIONS: Each of the following statements reflect personal feelings held by some people in this society. We are interested in how much you agree with each statement. Because these statements reflect personal feelings and attitudes, there are no right and wrong answers. The BEST response to each of the following statements is your PERSONAL OPINION. We have tried to cover many points of view. You may find yourself agreeing with some of the statements and disagreeing with others. Regardless of how you feel, you can be sure that many others feel the same as you do.

RESPOND TO EACH STATEMENT ACCORDING TO YOUR OPINION BY CIRCLING THE ANSWER THAT BEST REFLECTS YOUR OPINION

PLEASE READ THIS FIRST

- **Some of these statements may not seem to apply to your life right now; still give your opinions, as they might be in the future.**

- **If a statement seems to have more than one part, respond to the statement as a whole.**

- **Some statements will sound similar. This is deliberate; we want to know if different wording leads to different responses.**

1. My parents know what's best for me in terms of how to choose friends.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

2. I haven't thought much about what I look for in a date – I just go out to have a good time.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

3. My own views on a desirable lifestyle were taught to me by my parents and I don't see any reason to question what they taught me.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

4. My parents had it decided a long time ago what I should go into for employment and I'm following their plan.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

5. My education is not something I really spend much time thinking about.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

6. I guess I just kind of enjoy life in general, I don't spend much time thinking about it.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

7. Even if my parents disapproved, I could be a friend to a person if I thought she/he was basically good.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

8. I believe my parents probably know what is best for my future education.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

9. When I'm on a date, I don't like to have any particular plans.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

10. I just can't decide what to do for an occupation. There are so many that have possibilities.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

11. After a lot of self-examination, I have established a very definite view on what my own lifestyle will be.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

12. I'm really not interested in finding the "right career", any job will do. I just seem to go with what is available.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

13. I know my parents don't approve of some of my friends, but I haven't decided what to do about it yet.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

14. Some of my friends are very different from each other, I'm trying to figure out exactly where I fit in.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

15. I couldn't be friends with someone my parent's disapprove of.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

16. My parent's views on life are good enough for me, I don't need anything else.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

17. I'm not so sure about what I want for my education, but I am now actively exploring different choices.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

18. My dating standards are flexible, but for me to change my standards, it must be something I really believe in.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

19. I've had many different kinds of friends, and now I have a clear idea of what I look for in a friendship.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

20. I've done a lot of thinking about my education, and I've got a specific plan laid out.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

21. I don't have any close friends, I just like to hang around with the crowd and have a good time.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

22. The standards or "un-written rules" I follow about dating are still in the process of developing – they haven't completely "jelled" yet.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

23. I would never date anyone my parents disapprove of.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

24. I've never had any real close friends – it takes too much energy to keep a friendship going.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

25. Sometimes I wonder if the way other people date is the best way for me.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

26. After considerable thought, I've developed my own individual viewpoint of what is for me an ideal "lifestyle" and don't believe anyone will likely to change my views.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

27. School is just something I'm supposed to do, not much more.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

28. I haven't chosen the occupation I really want to get into. I'll just work at whatever is available

unless something better comes along.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

29. My rules or standards about dating have remained the same since I first started going out and I don't anticipate that they will change.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

30. In finding an acceptable viewpoint to life itself, I often exchange ideas with friends and family.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

31. It took a lot of effort to decide, and I now have definite intentions about my education.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

32. There's no single "life-style" which appeals to me more than another.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

33. It took me a while to figure it out, but now I really know what I want for a career.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

34. I'm still trying to decide how capable I am as a person and what jobs will be right for me.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

35. There are so many subjects to learn about in school. I'm trying out as many as possible so I can make a better decision about my future education.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

36. I might have thought about a lot of different jobs but there's never really been any question since my parents said what they wanted.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

37. I'm looking for an acceptable perspective for my own "lifestyle" view, but I haven't really found it yet.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

38. My parents have taught me the most important goals about my education. I've seen no reason to doubt them.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

39. It took me a long time to decide, but now I know for sure what direction to move in for a career.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

40. I've dated different types of people and I now know exactly what my own "unwritten rules" for dating are.

Strongly disagree / Moderately disagree / Disagree somewhat / Agree somewhat / Moderately agree / Strongly agree

Directions: The six sentences below describe how people think about themselves and how they do things in general. Read each sentence carefully. For each sentence, please think about how you are in most situations. Mark the circle that describes YOU the best. For example, mark the circle (O) by "None of the time," if this describes you. Or, if you are this way "All of the time," mark the circle next to "All of the time." Please answer every question marking one of the circles. There are no right or wrong answers.

1. I think I am doing pretty well.

O None of the time
O A little of the time
O Some of the time
O A lot of the time
O Most of the time
O All of the time

2. I can think of many ways to get the things in life that are most important to me.

O None of the time
O A little of the time
O Some of the time
O A lot of the time
O Most of the time
O All of the time

3. I am doing just as well as others my age.

O None of the time
O A little of the time
O Some of the time
O A lot of the time
O Most of the time
O All of the time

4. When I have a problem, I can come up with lots of ways to solve it.

O None of the time
O A little of the time
O Some of the time
O A lot of the time
O Most of the time
O All of the time

5. I think the things I have done in the past will help me in the future.

O None of the time
O A little of the time
O Some of the time
O A lot of the time
O Most of the time
O All of the time

6. Even when others want to quit, I know that I can find ways to solve the problem.

O None of the time
O A little of the time
O Some of the time
O A lot of the time
O Most of the time
O All of the time

Your Education Plans
Directions: In terms of your future education, **mark all that apply**. I plan to:

O Graduate from high school

O Attend specialized training (less than 2 years; example: business school or cosmetology)

O Attend a technical school or apprenticeship program (*examples*; carpentry, nurses

   assistant)

O Attend military training or Officers school?

O Attend some college classes at a community college

O Graduate from a 2-year/community college program

O Attend a university

O Graduate from a 4-year or bachelor's degree college program

O Graduate with a Master's degree

O Complete a professional graduate degree program (examples: a doctorate program, law school program or medical school program) at a university

THANK YOU FOR YOUR PARTICIPATION!

PLEASE TAKE A MINUTE TO LOOK BACK THROUGH THE QUESTONNAIRE TO MAKE SURE YOU ANSWERED ALL THE QUESTIONS, AND THEN GIVE YOUR COMPLETED QUESTIONNAIRE TO THE TEACHER, PRINCIPAL, COUNSELOR, MENTOR, TUTOR OR RESEARCH ASSISTANT IN YOUR CLASS.

Appendix B

Consent Form (English)

Appendix C

Consent Form (Spanish)

Appendix D

IRB Approval