PREDICTING EDUCATIONAL AND CAREER EXPECTATIONS OF LOW INCOME

LATINO AND NON-LATINO HIGH SCHOOL STUDENTS:

CONTRIBUTIONS OF SOCIOPOLITICAL DEVELOPMENT

THEORY AND SELF-DETERMINATION THEORY

by

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Title: Predicting Educational and Career Expectations of Low Income Latino and Non-Latino High School Students: Contributions of Sociopolitical Development Theory and Self-Determination Theory

The purpose of this study is to clarify the relationship between sociopolitical development, autonomous motivation, and educational and career outcomes among low income Latino and non-Latino high school students and to explore the socioeconomic and ethnocultural differences among these relationships. This study is informed by Sociopolitical Development Theory (SPD) and Self-Determination Theory (SDT). Both SPD and SDT are frameworks that have been applied to the educational experiences of low-income and ethnocultural minority students in previous research. In this study, I tested a model to examine the relationship of sociopolitical development and career and educational outcomes for a diverse sample of high school students as mediated by autonomous motivation, a key feature of SDT. Structural equation modeling was used to test whether the data from a diverse sample of high school students ($N = 1196$) fit the proposed model. Differences in model fit for subsamples of Latino and non-Latino participants and for lower and higher SES participants also were explored. Results suggest that high school students' sociopolitical development predicts career and educational outcomes, and this relationship was partially mediated by autonomous motivation. Model fit did not vary as a function of SES or ethnicity. Results lend

confidence to the utility of SDT and SPD in predicting educational and career outcomes

for high school students. Interventions that promote SPD and autonomous motivation are

described. Strengths and limitations of the study are discussed.

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CHAPTER I

RATIONALE

This section examines the needs of Latino and low-income students in regards to career and educational development. Sociopolitical Development Theory and Self-determination Theory will be introduced and described as they pertain to the career and educational development of high school students. Variables used in this study will be defined and hypothesized variable relationships will be outlined.

Needs of Latino and Low-income Students

Development of academic competence is the most dominant and challenging cognitive and motivational task of childhood and adolescence (Arbona, 2000). Educational outcomes, including academic achievement and educational attainment, have pivotal consequences for career development and lifestyle choices in adulthood. Adolescents with low levels of academic achievement are more likely to engage in substance abuse, risky sexual behavior, and delinquency, risk factors that interfere with subsequent academic achievement and persistence in school (Arbona, 2000). Moreover, earning potential is directly related to educational attainment (Ryan & Siebens, 2012). Therefore, factors that limit high school completion and readiness for postsecondary education have long-term financial implications. Understanding factors that enhance educational outcomes is relevant to the development of positive career outcomes and general well-being in adulthood (Arbona, 2000).

Identifying and understanding factors that enhance academic outcomes is critical for students who face social and economic barriers (Close & Solberg, 2008). Low-income and ethnic minority students in general are at-risk for diminished academic outcomes

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(APA Task Force on Socioeconomic Status, 2007; Close & Solberg, 2008, Lopez, 2009; Ream & Rumberger, 2008). This is particularly true for Latino and low-income students, who are more likely to drop out of school and face other problems that eventually result in higher rates of unemployment, lower pay, and fewer employment benefits than their peers (Close & Solberg, 2008; Ream & Rumberger, 2008). Latino students are disproportionately represented in lower socioeconomic status (SES) groups (APA Task Force on Socioeconomic Status, 2007). As a result, Latino students face significantly higher risk for poor educational outcomes in spite of Latino families' positive values toward pursuing successful education (Hill & Torres, 2010).

Latinos represent 16 percent of the population in the United States. With an average age of 27.5 years, the largest ethnic minority group in the U.S. is also the youngest in the U.S. population; nearly a quarter of all K-12 students are Latino (Simon et al., 2011). Latino children are more likely than White children to grow up in environments that lack resources and assistance to develop school readiness skills (Simon et al., 2011). Moreover, although Latino students' academic achievement levels have increased in the last decade, they continue to have lower achievement levels than White students. Latino students are less likely to take Advanced Placement courses or to participate in extracurricular activities, and have lower SAT and ACT scores than White students (Chapman, Laird, & KewalRamani, 2010; Simon et al., 2011); these factors affect Latino students' college preparedness. Latino students consistently experience lower high school completion rates than both White and Black students, and male Latino students are particularly at-risk for not completing high school (Chapman et al., 2010). Finally, Latinos have lower college graduation and employment rates and income levels

compared to Whites. Nearly 60 percent of Latino students enroll in college immediately

following high school graduation, compared to 71 percent of White high school graduates

(Aud et al., 2011). However, an overwhelming majority of Latino youth and adults alike

believe that a college degree is important for getting ahead in life (Lopez, 2009). Given

these findings, increasing Latino student access to opportunities that lead to successful

educational outcomes is important for the welfare of Latinos and the country as a whole

(Simon et al., 2011).

Social class influences the educational attainment of Latino students (Arbona,

1990), and structural factors associated with low socioeconomic status account for more

variance in educational attainment than do cultural factors (Constantine, Erickson, Banks,

& Timberlake, 1998). Latinos, compared to other racial and ethnic groups in the U.S.,

attend the most impoverished and poorly equipped schools and are more likely to have

inadequate materials and inexperienced teachers (Hill & Torres, 2010). More than 25

percent of Latino children lived in poverty in 2007, compared to 10 percent of White

children.

Poverty itself is a risk factor for diminished educational and career outcomes.

Among school age children in Oregon, 18.7 percent live in poverty (Aud et al., 2011).

Low-income students demonstrate lower levels of school engagement (Marks, 2000) and

academic achievement (Arbona, 2000), and are more than four times as likely to drop out

of high school than high-income students (Aud et al., 2011). About 50 percent of low-

income high school graduates enroll in college immediately following high school

compared to more than 80 percent of high-income students (Chapman et al., 2010). This

trend persists among students who are well qualified for college (Education Trust, 2000,

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as cited in Jackson & Nutini, 2002). About 30 percent of high scoring, low-income 8th
graders go on to graduate from college, the same as low-scoring, high-income children.
Alternatively, 74 percent of high scoring, high-income students complete college (White
House Task Force on Middle Class Families, 2009).

This disparity is problematic as level of education is positively correlated with
earnings and is a reliable pathway out of lower SES strata (White House Task Force on
Middle Class Families, 2009). As of 2007, college graduates earned an average of 77
percent more than high school graduates (Office of the Vice President of the United
States, 2010). Among low-income students, those who do not graduate from college
were almost three times as likely to remain in the bottom fifth of the income scale as their
low-income counterparts who completed college (Office of the Vice President of the
United States, 2010). In addition to financial barriers to accessing higher education, low-
income students tend to lack access to information and networks that encourage attending
college and help students identify affordable college options (White House Task Force on
the Middle Class, 2009). Moreover, social stratification impacts the assignment of
students to ability groups early in school; students from lower SES families are more
likely to be placed in lower ability groups than their more affluent peers (Hotchkiss &
Borrow, 1996). This placement predicts future knowledge acquisition and educational
attainment, and enacts a self-fulfilling prophecy in which discriminatory processes lead to
ability groupings that hinder students placed in lower level groups from achievement,
resulting in further discriminatory treatment (Hotchkiss & Borrow, 1996).

Sociopolitical factors. Arbona (2000) confirms that the relationship between
SES and career and educational outcomes is likely indirect, pointing towards

sociopolitical factors that account for this relationship. Sociopolitical barriers that affect career trajectories of marginalized populations include discrimination, lack of access to resources, negative social support and role models, negative self-efficacy, unrealistic beliefs in equal opportunity, and limited coping strategies (Jackson & Nutini, 2002). Career development can be enhanced in these groups through positive social support and role models, career intervention programs, skill development, effective coping strategies, and constructive self-efficacy. Understanding contextual and psychological barriers is important in enhancing the career development of low-income and Latino students (Jackson & Nutini, 2002). Arbona (2000) points out that motivation and self-efficacy are more important than SES in predicting academic achievement, demonstrating the need to attend to motivation and factors that influence its development in high school.

Aspiration-expectation gap. Structural barriers lead to an aspiration-expectation gap among poor students of color, meaning that students expect to attain lower occupation or education levels than they aspire to attain (Arbona, 1990; Diemer & Hsieh, 2008; Lopez, 2009). Although Latino students have the same aspirations and career interests as their White counterparts, they perceive fewer career choices and opportunities and have lower outcome expectations (Constantine et al., 1998; Lopez, 2009). This gap negatively affects student career choices and motivation to pursue career options, and ultimately results in lower occupational attainment in adulthood (Constantine et al., 1998; Diemer, 2009).

The sociopolitical context, including racial and social class inequities (Hotchkiss & Borrow, 1996; Kozol, 2005) and the lack of opportunity to change the conditions that led to inequality (Morsillo & Prilleltensky, 2007) influence occupational expectations of

members of marginalized groups and contribute to the aspiration-expectation gap (Arbona, 1990; Diemer, 2009). Ethnic minority students are more likely to experience environmental stressors that contribute to poor academic performance including poverty, inadequate health care, and discrimination (Constantine et al., 1998). Specific sociopolitical barriers include limited access to educational and vocational resources, quality vocational guidance, role models, and community support, as well as the perceived effects of structural racism on work lives of family members and occupational dreams, and community violence (Diemer, 2009; Diemer et al., 2010; Diemer & Hsieh, 2008).

The aspiration-expectation gap is evident in the way poor youth of color think about their future. According to Diemer (2009, p. 8), "Vocational expectations, the occupations youth expect to attain in adulthood, represent the projection of the adolescent occupational self-concept into the adult world of work." Unfortunately, contextual barriers lead students to believe that it is unlikely that they will be able to realize their occupational self-concept in the world of work, resulting in the expectation of lower level jobs that are easier to obtain (Diemer, 2009). Ethnic minority students have less access to opportunities to develop self-efficacy for financially rewarding careers that require educational attainment (Constantine et al., 1998). Vocational expectations are predictive of occupational exploration and decision-making during adolescence and occupational attainment in adulthood (Diemer, 2009). Therefore, the aspiration-expectation gap has a deleterious impact on the actual career outcomes of poor youth of color.

Although schools typically provide interventions to enhance career development, Latino students are less likely than White students to receive career counseling. For

ethnic minority students who do receive these services, counselor stereotypes, misinformation, and bias sometimes prevents services from being helpful (Mestre & Robinson, 1983, as cited in Constantine et al., 1998). Discrimination, bias, and low expectations may act as self-fulfilling prophecies in the school setting, further limiting ethnic minority students' academic achievement (Constantine et al., 1998). Attending to the sociopolitical factors that contribute to career and educational expectations has important long-range implications for low-income and Latino youths' career and educational outcomes.

In summary, Latino and low-income students face structural barriers that negatively impact educational and career outcomes. These students are less likely to enroll in and graduate from college than their White, more affluent peers. Moreover, poor youth of color experience a discrepancy between the career outcomes they aspire to attain the career outcomes they expect to attain. I turn now to Sociopolitical Development Theory, which expands upon the role of structural oppression in the career development of poor youth of color and describes factors that help individuals effectively negotiate these barriers.

Sociopolitical Development Theory

Structural inequality. Racial ethnic minority and low-income groups face structural racism and socioeconomic inequity that result in negative consequences for career development (Diemer et al., 2010). The disparity in access to educational and vocational resources for Latino and low-income students is a sociopolitical problem that constrains their connection to the world of work and the occupations that students expect to attain (Diemer & Blustein, 2006; Diemer et al., 2010). Structural oppression may limit

Latino and low-income students' perceived agency, competence, and control (Diemer, Hsieh, & Pan, 2009). Poor youth of color are required to accomplish career development tasks of developing an occupational self-concept and occupational expectations while facing structural oppression that constrains these processes, subsequently limiting occupational attainment in adulthood (Diemer, 2009).

Social dominance orientation. Social dominance orientation (SDO) is a sociopolitical attitude that perpetuates structural oppression (Diemer & Blustein, 2006; Pratto, Sidanius, Stallworth, & Malle, 1994). SDO supports social inequality, dominance, and oppression wherein one group enjoys disproportionately more status, power, and resources than other groups (Diemer & Bluestein, 2006). Social dominance orientation reflects the extent to which an individual prefers intergroup relations to be hierarchical versus equal (Pratto et al., 1994). Specifically, people with high SDO support group hierarchy, believing that groups do and should differ in value (Pratto et al., 1994). Diemer and Bluestein (2006) make the case that SDO is inversely related to critical consciousness. Critical consciousness is developed through *concientizacao,* defined as "learning to perceive social, political, and economic contradictions, and to take action against oppressive elements of reality" (Freire, 2008; p. 35). Diemer and Blustein (2006) argue that the rejection of SDO indicates the presence of critical analysis and questioning. Because "SDO is collectively shared, self-evident, and part of the social fabric that all Americans are exposed to and learn from" (Diemer & Blustein, 2006; p. 222), rejecting SDO suggests a process of unlearning through critical consciousness.

Sociopolitical development. The theory of sociopolitical development stems from liberation psychology (Martín-Baró, 1994) and Freire's (1973, 2008)

conceptualization of critical consciousness (Diemer 2009). Diemer and colleagues (2009) define sociopolitical development as "an orientation toward social justice, a motivation to transform sociopolitical inequity in one's environment, and the development of a healthy sense of self and feeling empowered to exercise one's agency in the context of structural oppression" (p. 318). Sociopolitical development may be the "antidote" to structural oppression (Watts, Griffith, & Abdul-Adil, 1999), empowering poor youth of color to close the aspiration-expectation gap, thereby indirectly influencing adult occupational attainment through the negotiation of sociopolitical barriers to adolescent occupational expectations (Diemer, 2009).

The theory of SPD postulates that sociopolitical development empowers marginalized youth to develop self-determination and to practice their agency by critically analyzing and negotiating structural oppression (Diemer et al., 2010). Critical consciousness, motivation, and self-definition are three key components of sociopolitical development, and together help students move away from limited consciousness of inequality and apathy (Diemer, 2009). *Critical consciousness* describes the process of transforming from the object of oppression to an active actor with an increased capacity to negotiate conditions of oppression (Friere 1973, 2008). Increased recognition of the connection between the sociopolitical context and the student's own life is an important aspect of this consciousness (Watts & Flanagan, 2007, as cited in Diemer & Hsieh, 2008). It is easier for individuals in marginalized groups to resist the negative impact of oppression when it is visible (Tatum, 1997, as cited in Diemer et al., 2010). The *motivation* component of sociopolitical development describes motivation to reduce social and economic inequity, and to help other community members, and includes active

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participation in community and social action groups. Because structural oppression leads members of oppressed groups to internalize limitations, *self-definition* is an important component of sociopolitical development that consists of a healthy sense of self and agency within the sociopolitical context (Diemer et al., 2009). Supportive and positive peer relationships in general, and perceived support for challenging discrimination more specifically, facilitate sociopolitical development because these tap into all three of the sociopolitical development components (Diemer, et al., 2009). Diemer et al. (2010) found that sociopolitical development can be measured the same way across ethnic groups. In addition, because critical awareness and motivation are required to overcome social dominance orientation, SDO can be used as an inverse measure of sociopolitical development (Diemer and Blustein, 2006).

Sociopolitical development influence on career development. Because many of the barriers to academic success and subsequent career development are sociopolitical in nature, greater consciousness of structural oppression may empower marginalized students to effectively negotiate barriers and engage in academic and career development tasks (Diemer & Blustein, 2006; Diemer et al., 2010). Sociopolitical development provides students of oppressed groups with the capacity to contend with structural oppression and obtain desired outcomes (Diemer & Blustein, 2006; Diemer et al., 2009). SPD facilitates the negotiation of sociopolitical barriers' influence on occupational self-concept, career development, and occupational attainment for poor students of color (Diemer et al., 2010; Diemer & Hsieh, 2008). Moreover, sociopolitical development is associated with academic achievement, optimism about the future, and personal competence among students who face structural oppression (O'Connor, 1997). Chronister

and McWhirter (2006) concluded that critical consciousness was associated with greater achievement of career-related goals among survivors of domestic violence. In addition, sociopolitical development is associated with greater work salience (Diemer et al., 2010), vocational identity, connection to vocational future (Diemer & Blustein, 2006), and greater future occupational expectations and attainment among poor youth of color (Diemer & Hsieh, 2008; Diemer et al., 2010; Diemer, 2009).

At the same time, there is some evidence that greater consciousness of sociopolitical inequity results in disengagement from school and work, which contradicts Diemer's assertion that sociopolitical development promotes educational and career development for poor youth of color (Diemer et al., 2010). For example, Conchas (2001) found mixed results regarding the role of critical consciousness and educational success. Specifically, some Latino students suppressed critical consciousness in order to engage successfully with the opportunity structure and other students demonstrated critical consciousness while developing high educational and career expectations. Diemer and colleagues (2010) claim that this study used a narrow definition of critical consciousness that did not include the action component of sociopolitical development, and therefore failed to adequately illuminate the relationship between SPD and engagement with the opportunity structure.

Other scholars theorize that awareness of structural oppression leads marginalized groups to oppose engagement with the opportunity structure (Ogbu, 1989). In this view, disengagement and lower aspirations are considered functional responses to the inequitable opportunity structure. However, empirical studies have not supported this theory (Ainsworth-Darnall & Downey, 1998; Harris, 2006; Perriera, Fuligni, &

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Potochnick, 2010). Moreover, Diemer and colleagues (2010) argue that critical consciousness may be a source of agency as understanding structural oppression allows individuals to negotiate barriers and engage in normative challenges that arise when interacting with the normative structure.

Diemer (2009) conducted a longitudinal study that examined the impact of sociopolitical development on adolescent occupational expectations and adult occupational attainment (see Figure 1 below). Earlier occupational expectations and sociopolitical development predicted these same variables at the end of high school, demonstrating the stability of these constructs over time in adolescence. Sociopolitical development in high school had a positive indirect influence on adult occupational attainment through occupational expectations in 12th grade. Diemer (2009) concluded that sociopolitical development influences adult occupational attainment by facilitating career development in adolescence. This longitudinal study is consistent with other findings of the predictive relationship between adolescent occupational expectations and adult occupational attainment. Moreover, the study demonstrates that sociopolitical development for poor youth of color predicts greater occupational expectations. This suggests that sociopolitical development does, indeed, assist poor youth of color in negotiating sociopolitical barriers to career development (Diemer, 2009).

In summary, poor students of color experience an aspiration-expectation gap wherein they expect to obtain lower education and occupational levels than they aspire to attain. However, evidence indicates that sociopolitical development, which includes critical consciousness, motivation, and agency to address structural oppression, may play a role in students' ability to overcome barriers to educational and career development. In

order to understand the possible mechanisms through which sociopolitical development affects academic achievement and career and educational expectations and aspirations, I turn now to motivation and the role of psychological needs that potentially mediate this relationship.
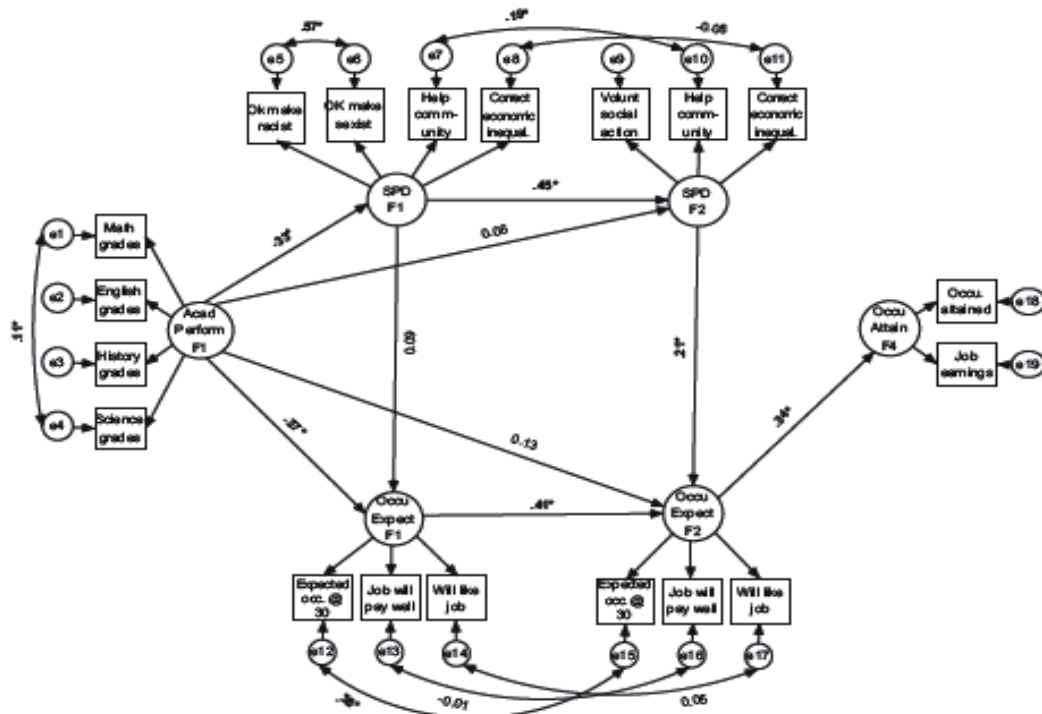

Figure 1. Structural model of sociopolitical development as a predictor of vocational expectations and occupational attainment (Diemer, 2009).

Self-Determination Theory

Self-determination Theory is a theory of motivation that is concerned with "the content of goals or outcomes and the regulatory process through which outcomes are pursued" (Deci & Ryan, 2000; p. 227). SDT focuses on types of motivation, implications of motivation for human functioning, and the contextual factors that facilitate motivation. Self-determination Theory was developed from the understanding that human motivation

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is based in a set of innate psychological needs rather than physiological drives (Deci &

Ryan, 1985).   This section describes the different types of motivation proposed by SDT,

the importance of basic psychological needs for well-being, and a discussion of the role

that motivation and psychological needs have in the context of education.

  Motivation. Self-Determination Theory focuses on perceived forces that

influence actions and it distinguishes between types of motivation, which have specific

consequences for learning and general well-being (Ryan & Deci, 2000). According to

SDT there are two general types of motivated action. Intrinsic motivation leads to wholly

volitional actions indicated by choice and an internal locus of control. Extrinsic

motivation leads to actions compelled by something external to one's sense of self, either

an interpersonal or intrapsychic force that is indicated by compliance and an external

locus of control (Deci, Vallerand, Pelletier, & Ryan, 1991).

  Motivation lies on a continuum with intrinsic motivation on one end and

amotivation, or the absence of the intention to act, on the other end, with several types of

extrinsic motivation making up the middle of the continuum (see Figure 2 below). These

types of extrinsic motivation differ in the extent to which they represent controlled or

autonomous regulation (Deci et al., 1991). The four types of extrinsic motivation in the

middle of the continuum include external, introjected, identified, and integrated

motivation. Externally regulated motivation controls behavior through the use of external

demands or contingencies. Introjected regulation influences behavior through guilt, or

internal coercion, and is indicated by regulation that has not become part of the self so

that actions are not quite chosen (Deci et al., 1991; Ryan & Deci, 2000). In identified

regulation, the person accepts and identifies with the regulatory process leading to valued

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behaviors. Integrated regulation is the most developmentally advanced form of extrinsic

motivation and refers to behavior that is congruent with the individual's sense of self and

is valued and important to the individual. Integration is considered the most self-

determined form of extrinsic motivation because it includes the identification with

behaviors, which become integrated into other aspects of an individual's life (Deci &

Ryan, 2000). Integrated regulation leads to behaving willingly and conceptual or intuitive

understanding (Deci et al., 1991). Finally, at the far end of the continuum and following

integrated extrinsic regulation is intrinsic motivation which is fully self-determined and

refers to actions that are performed for the pleasure and satisfaction derived from them

alone (Deci et al., 1991; Deci & Ryan, 2000; Ryan & Deci, 2000). Actions that are

intrinsically motivated are done freely without the need for rewards or constraints (Deci
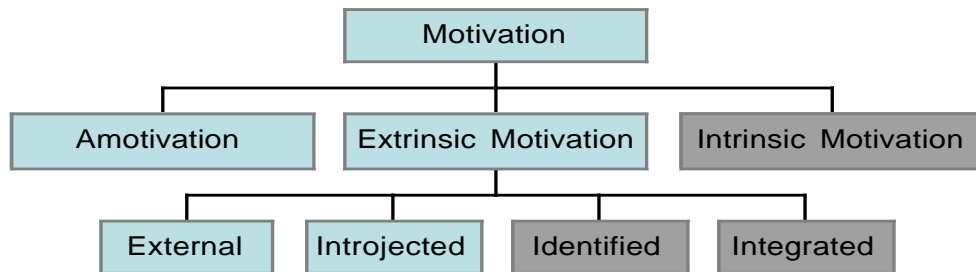
et al., 1991).

Figure 2. The self-determination continuum. Dark squares indicate autonomous
motivation or regulatory styles.

Internalization and integration determine how motivation is regulated (Deci et al.,

1991). Self-regulation in this case refers to how social values and external contingencies

are transformed into personal values and self-motivations, thereby internalizing behaviors

that were originally controlled by external contingencies (Black & Deci, 2000; Ryan &

Deci, 2000). Social pressures to engage in activities that are not inherently interesting and

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pressure to take on adult responsibilities decrease the opportunity for truly intrinsic behavior (Deci & Ryan, 2000). Although identified and integrated motivation are considered extrinsic because they are used to attain goals that are not reinforcing simply because of the activity itself, they join intrinsic motivation in a category of motivation referred to as autonomous motivation because they are experienced as self-determined (Brophy, 2010).

Consequences of autonomous motivation in education. Motivation is an important area of emphasis in the school setting because it concerns energy, direction, persistence, equifinality, and mobilization (Ryan & Deci, 2000). School environments that foster autonomous motivation in education help promote flexibility in problem solving, efficient acquisition of knowledge, and a strong sense of personal worth and social responsibility (Deci et al., 1991). Autonomous motivation has positive behavioral, cognitive, and affective consequences at school and is associated with greater academic performance, staying in school, and school engagement (Deci, Koestner, & Ryan, 2001; Deci et al., 1991). Autonomous motivation, specifically, is associated with greater interest, excitement and confidence, which, in turn improves performance, persistence, creativity, vitality, self-esteem, and general well-being (Ryan & Deci, 2000). Autonomous motivation is also related to higher levels of conceptual learning, challenge seeking, quality of learning, enjoyment, satisfaction, effort, and positive emotions (Deci et al., 1991, 2001; Ryan & Connell, 1989; Ryan & Deci, 2000).

Conversely, more controlling regulatory styles are related to greater anxiety and poorer coping with failure (Deci et al., 1991, 2001; Ryan & Connell, 1989). High stakes testing policies, for example, operate from the assumption that salient rewards and

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punishments contingent on student performance will ensure greater student effort and learning as well as teacher effectiveness (Ryan & Brown, 2005). Unfortunately, external pressures on student performance as seen in high stakes testing often lead to controlling styles of teaching that promote external regulatory styles in students (Deci et al., 1991).

Basic psychological needs. Because autonomous motivation is associated with numerous positive outcomes including enhanced learning and performance, understanding the conditions that promote autonomous motivation is warranted (Deci & Ryan, 2000). Autonomous motivation is maximized in contexts that provide people with the opportunity to satisfy their basic psychological needs and thwarted in environments that hinder need satisfaction (Deci et al.,1991; Ryan & Deci, 2000). Deci and Ryan (2000) define basic psychological needs as "innate psychological nutriments that are essential for ongoing psychological growth, integrity, and well-being" (p. 229). Deci and colleagues (1991) posit that the three basic psychological needs are relatedness, competence, and autonomy. Relatedness refers to the development of secure and satisfying connections to others (Deci et al., 1991). Competence refers to understanding how to attain various external and internal outcomes and efficacy in performing the required actions to elicit these outcomes. Autonomy, essential for intrinsic motivation to exist, refers to self-initiation and self-regulation of actions.

Intrinsically motivated behaviors directly satisfy basic psychological needs; these needs provide content that is inherently interesting and do not require reinforcement (Deci & Ryan, 2000). Autonomy, competence, and relatedness enhance optimal functioning, constructive social development, and well-being (Ryan & Deci, 2000). Satisfaction of all basic psychological needs is important for humans to thrive and for

autonomous motivation to develop. Autonomy, competence, and relatedness are universal needs that are essential for optimal health and for understanding the content and process of goal pursuits across cultures (Deci & Ryan, 2000). Diversity of values and goals between cultures affect the ways basic needs are satisfied but the link between self-determined motivation and satisfaction of competence, relatedness, and autonomy appear to be generalizable among diverse cultural groups (Deci & Ryan, 2000). The social environment plays an important role in need satisfaction and conflict between basic needs in the social environment is particularly damaging (Ryan & Deci, 2000). For example, relationships that require an individual to sacrifice autonomy in order to receive love makes it likely that alienation and psychopathology will develop (Ryan & Deci, 2000). Environments that prevent need satisfaction and therefore diminish autonomous motivation lead to alienation, anxiety, depression, and somatization (Deci & Ryan, 2000).

The postulation that three basic psychological human needs give motivational content to life and direct the exploration of issues such as learning is fundamental to SDT. The role of relatedness, competence, and autonomy is essential in understanding the conditions that promote the development of self-determined motivation and related outcomes. The nature of needs in SDT is similar to drive theories in that needs are considered innate (Deci & Ryan, 2000). However, these theories differ with respect to how needs affect behavior. In drive theory, needs are physiological in nature and operate by motivating organisms to act through some deficit, like hunger. In SDT, basic needs are psychological provisions that promote healthy functioning and development when they are satisfied. This approach is growth oriented rather than deficit oriented (Deci & Ryan, 2000).

Need satisfaction as mediator. Need satisfaction mediates the relationship between the environment and motivation (Standage, Duda, & Ntoumanis, 2005; see Figure 3 below). For example, Standage and colleagues (2005) found that students who perceived their physical education environments as supportive of their basic psychological needs were more likely to experience need satisfaction in the context of physical education. Furthermore, need satisfaction was positively associated with autonomous motivation and negatively associated with externally regulated motivation and amotivation. In addition, motivation influenced adaptive outcomes associated with physical education. This illustrates that the degree to which the educational environment supports basic psychological needs and students' perception of need satisfaction contributes to the development of autonomous motivation in the same setting. Therefore, student perception of basic need satisfaction within the school context is an important feature of the measurement model in the present study.
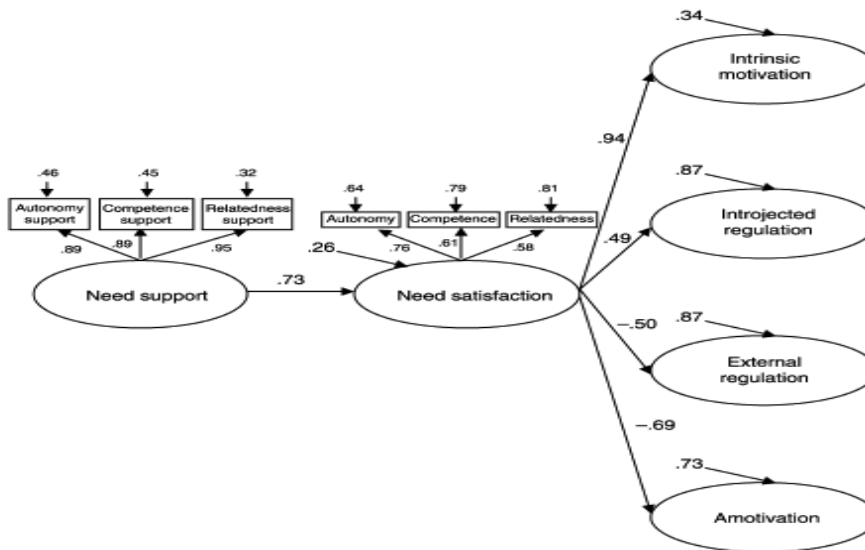

Figure 3. Structural model of need support predicting motivation through need satisfaction (Standage, Duda, & Ntoumanis, 2005).

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Basic psychological need satisfaction in the school environment. Schools are the primary context for socialization in the first two decades of life (Deci et al., 1991). According to SDT, school contexts that support relatedness, competence and autonomy promote autonomous motivation. If the school context does not allow for satisfaction of basic needs, motivation will be diminished and developmental processes impaired (Deci et al., 1991). According to Roeser, Eccles, and Sameroff (1998), perception of school support for relatedness, competence, and autonomy accounted for 20 percent of the variance in self-determined academic motivation.

Relatedness in schools. Among the three basic psychological needs, relatedness plays the most distal role in developing autonomous motivation, yet this need is observed from a very young age. Exploratory behavior is considered intrinsically motivated in infancy and is exhibited by children who have developed secure attachments (Deci & Ryan, 2000). Relatedness is an important aspect of identity development with implications for mental health and well-being (Townsend & McWhirter, 2005). Karcher (2005) uses connectedness theory to explain adolescents' need for belonging and relatedness. Connectedness, which can be understood as relatedness, is associated with engagement, loneliness, belongingness, attachment, and affiliation (Townsend & McWhirter, 2005). Connectedness is important when considering the sociopolitical factors that influence youth (Townsend & McWhirter, 2005). Karcher's (2005) measure of connectedness was developed, in part, from achievement motivation research and is used to measure relatedness in the present study.

School is a key context for the development of relatedness and associated positive outcomes for students. Students who perceive their teachers to be warm and caring

exhibit greater autonomous motivation (Ryan & Grolnick, 1986; Ryan, Stiller, & Lynch, 1994, as cited in Deci & Ryan, 2000). Bonding in the school context provides the opportunity for students to connect with positive adults and leads to positive developmental outcomes (Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004). Bonding consists of involvement, attachment, affective relationships, investment and commitment, and the belief in school values. Overall, bonding inhibits deviant behavior in school (Catalano et al., 2004). Bonding in the school setting influences student behavior through as values are transmitted from those the student is attached to. Specifically, school bonding is positively associated with academic achievement, school persistence, academic and social skills, and negatively related to learning barriers, school problem behavior, substance use, discipline, and suspension or expulsion (Catalano et al., 2004; Karcher & Finn, 2005; Marchant, Paulson, & Rothlisberg, 2001; Maddox & Prinz, 2003). Relatedness in school as seen in the example of school bonding has important implications for educational outcomes.

Relatedness in school also has important implications for school engagement. A rich literature discusses the benefits of engagement and risks associated with disengagement. Engagement includes a psychological component that is associated with identifying with school and feeling cared for, respected, and part of the school environment (Anderson, Christenson, Sinclair, & Lehr, 2004). Close and high quality relationships with an adult in the school context are associated with greater levels of school engagement among students at risk for school failure (Anderson et al., 2004). School engagement is a psychological process that refers to the attention, interest, investment, and effort students direct towards learning (Marks, 2000), indicating that

engagement has implications for academic motivation. School engagement is an important indicator of academic success and is clearly linked to career development and relatedness in school (Klem & Connell, 2004; Perry, Liu, & Pabian, 2010). In summary, engagement has a clear relational component. Engagement is more likely to occur when relatedness is satisfied, leading to increased levels of learning, finding school rewarding, high school completion, and the pursuit of postsecondary education (Marks, 2000).

Specifically related to Latino students, teachers who demonstrate culturally responsive caring toward Latino students may foster positive school experiences (Garza, 2009). Evidence suggests cultural variation in the types of teacher attitudes and behaviors that are most important to relatedness in school (Garza, 2009). Latino students find that the following characteristics, in descending order by priority level, demonstrate caring: instructional help during teaching, individual academic support, personal interest in student well-being, availability, and actions that reflect kindness (Garza, 2009). White students identify the same characteristics but prioritize them differently; kindness, instructional help, and availability are most important for White students. Latino students place a greater value on academic support than the quality of the relationship (Garza, 2009). Caring teachers provide motivation and encourage engagement in school and learning; these factors are related to better academic performance (Perez, 2000). This literature suggests that both affective and academic aspects of relatedness should be examined in research in order to fully capture culturally diverse students' satisfaction of relatedness in school.

Competence in schools. Contexts that support competence as well as relatedness also are more likely to promote autonomous motivation. Marchant and colleagues (2001)

found that teacher responsiveness and supportive social environments in the school setting predicted academic competence, which, in turn predicted academic achievement. Specifically, positive feedback satisfies the need for competence, thereby enhancing autonomous motivation (Deci & Ryan, 2000). Negative feedback, on the other hand, decreases autonomous motivation and leads to amotivation or helplessness (Deci et al., 1991). The relationship between positive feedback and competence occurs only if the individual feels responsible for the positive performance and as long as the feedback does not diminish the perceived autonomy (Deci & Ryan, 2000).

According to Deci et al. (1991) competence refers to efficacy in performing the actions necessary to attain desired outcomes. Competence is a broad and nonspecific term, while specific types of competence, such as self-efficacy for school related tasks, capture more specific behaviors of achieving a desired outcome. According to Bandura (1989), individuals' belief in their ability to successfully accomplish tasks that will lead to a desired outcome determines levels of motivation through its influence on effort and persistence. These self-efficacy beliefs are domain specific and are influenced by vicarious learning, social persuasion, emotional arousal, and success experiences (Bandura, 1977). Self-efficacy in the academic context refers to students' perceived competence in accomplishing tasks necessary to achieve particular educational outcomes (Arbona, 2000). Bandura (2006) identifies several types of self-efficacy pertinent to school related tasks including self-efficacy for self-regulated learning, self-efficacy in enlisting social resources, self-efficacy for academic achievement, and self-efficacy for leisure time skills and extracurricular activities. Deci and colleagues (1991) emphasize the importance of self-regulation in determining the type of motivation an individual

develops. Therefore, self-efficacy for self-regulated learning is an important element of competence in school as related to autonomous motivation.

Self-efficacy is relevant to career and educational development in other ways as well. Self-efficacy influences the types of academic and occupational environments, and educational and career goals individuals approach or avoid (Brown, Lamp, Telander, & Hacker (2012); Clausen, 1991). Additionally, self-efficacy predicts the range of perceived career and academic options and persistence and success in chosen careers (Clausen, 1991; Multon, Brown, & Lent, 1991). Past performance and educational experiences determine self-efficacy, which, in turn, influences motivation and subsequent performance in an ongoing feedback loop (Multon et al., 1991). Interventions that increase student self-efficacy have been found to increase autonomous motivation (Arbona, 2000). Self-efficacy beliefs are related to academic performance and persistence. Attending to the self-efficacy beliefs of at-risk students is particularly helpful in enhancing educational outcomes (Multon et al., 1991).

Autonomy in schools. Competence and relatedness facilitate the development of internalized motivation, yet, autonomy must be satisfied in the development of integrated motivation (Deci & Ryan, 2000; Ryan & Deci, 2000). Events that threaten autonomy have been found to undermine intrinsic motivation. Such events include extrinsic rewards, threats, surveillance, evaluation, and deadlines (Deci & Ryan, 2000). Events that promote autonomy by providing choice and acknowledging feelings prompt internal locus of control and are associated with confidence in performance, creativity, cognitive flexibility, and conceptual learning (Deci & Ryan, 2000). The relationship between extrinsic motivation and controlling environments can be explained by the lack of

perceived autonomy that is common in such environments (Deci & Ryan, 2000).

Although competence and relatedness are important components of goal-directed

behavior, the need for autonomy must be satisfied for self-determined goal-directed

behavior and associated positive outcomes (Deci & Ryan, 2000).

Students who attribute their success to their ability level rather than

uncontrollable causes, thereby exhibiting a sense of autonomy and self-efficacy, are more

likely to experience greater academic outcomes and motivation (Arbona, 2000).

Autonomy supportive environments are important in the school context for promoting

autonomous motivation and subsequent academic and career outcomes (Soenens &

Vansteenkist, 2005; see Figure 4 below).   School contexts that foster autonomy help

students to believe that their actions can impact future outcomes; when this belief is not

present, feelings of hopelessness are likely to develop, leading to disengagement from

academic tasks (Arbona, 2000).
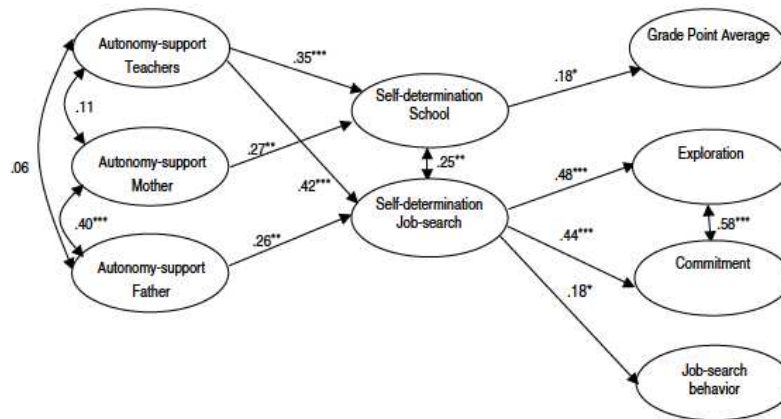
Figure 4. Structural model with self-determined motivation as a mediator between autonomy-support and academic and vocational outcomes (Soenens & Vansteenkist, 2005).

Autonomy is essential for greater levels of autonomous motivation to develop and therefore must be supported in the school setting for students to experience related academic benefits. Students whose teachers exhibit positive classroom management, interactive teaching, and cooperative learning demonstrate increased school bonding, school attachment and commitment, social and cognitive competence, academic achievement, and reduced problem behavior and risky behavior (Catalano et al., 2004). This suggests that teaching that satisfies the need for autonomy also enhances students' relatedness, competence, and related positive outcomes (Catalano et al., 2004). Typical behavior management techniques such as evaluation, reward and punishment, imposed goals, and competition diminish students' sense of autonomy, undermining the development of intrinsic motivation (Deci et al., 1991; Ryan & Deci 2000). However, using language and an interpersonal style that is noncontrolling and implies choice helps to combat the negative impact of these ubiquitous educational practices (Deci et al. 1991). Alternatively, providing choice and the opportunity for students to engage in the decision-making process helps students develop autonomous motivation (Deci et al., 1991). Educational environments can provide autonomy support by encouraging students to explore, discover, and learn (Deci & Ryan, 1985; Jang, Reeve, & Deci, 2010). Students who learn in settings that emphasize task-mastery, effort and self-improvement rather than competition and performance are more likely to spend more time learning, have higher levels of self-efficacy and autonomous motivation, and persist in challenging tasks (Arbona, 2000).

Basic psychological needs and marginalized groups. Highly motivated and autonomous students may elicit autonomy support from their teachers while distracted

and less motivated students may elicit more controlling teaching styles, thus developing a self-fulfilling prophecy based on a teacher's perceptions of students (Deci et al., 1991). Evidence suggests that teachers have lower expectations, offer less praise, and lack cultural sensitivity towards Latino students, diminishing Latino students' sense of connection to their school (Hill & Torres, 2010). In addition, data indicates that teachers are more likely to attribute ethnic minority student performance to external causes, a practice that conveys a message of low competence and autonomy and diminishes motivation (Arbona, 2000). Discrepancies between ability and actual performance in Latino students are associated with lack of motivation, not feeling pushed by teachers, and lack of interest in subjects (Griggs, Copeland, & Fisher, 1992).

Satisfaction of basic psychological needs seems to help ethnic minority students combat the negative impact of structural barriers on educational and career development. Perreira and colleagues (2010) contend that school climates in which Latinos experience positive treatment by peers and encouragement from teachers enhance motivation despite experiences of discrimination. Griggs and colleagues (1992) interviewed Latino students and found that successful students attribute their educational and career progress to high levels of autonomy. Moreover, validating relationships with teachers motivated students to act in ways that support teachers' messages that they are good students. Successful Latino students identified in this study believed that students with less developed plans and aspirations tended to lack in motivation, interest, support, information, and skills (Griggs et al., 1992). These findings point to the importance of exploring factors related to motivation, autonomy, competence, and relatedness in the career an educational development of Latino students.

Critiques of SDT. SDT operates from the assumption that intrinsic motivation has more positive implications for educational and personal development than extrinsic motivation. Specifically, external rewards and contingencies are considered harmful in the satisfaction of the inherent human need for autonomy, diminishing autonomous motivation. However, incentive systems and using reinforcement are common motivational tools in all educational settings (Cameron & Pierce, 1994). Locke (1997) criticizes Deci and Ryan's claim that external rewards negatively affect motivation, citing findings that support the role of incentives in motivating behavior. Specifically, Locke (1997) argues that external rewards can raise self-efficacy, which in turn positively correlate with task interest. However, self-efficacy theory (Bandura, 1977; 1986) and Locke and Latham's (1990) goal-setting theory fail to distinguish between controlled and autonomous motivation (Deci, 1992; Deci & Ryan, 2000; Gange & Deci, 2005). SDT's use of a continuum to differentiate between types of motivation and their effect on performance and well-being provides a more complex view of motivation. As such, Gagne and Deci (2005) concur with Locke (1997) that controlled (using external rewards) and autonomous motivation are equally effective in predicting performance on straightforward and redundant work tasks. However, Gagne and Deci (2005) claim that autonomous motivation is superior in predicting high performance on tasks that require creativity and problem solving. Using a unitary definition of motivation results in misleading conclusions regarding conditions that enhance autonomous motivation.

In addition to theoretical critiques of SDT, empirical evidence for Deci and Ryan's proposition that incentives negatively impact intrinsic motivation has been called into question. Cameron and Pierce (1994) conducted a meta-analysis and the findings

suggested that, contrary to SDT, rewards and extrinsic motivation were not detrimental to intrinsic motivation. Specifically, the study found that unexpected tangible rewards had no effect on intrinsic motivation and expected tangible rewards did not negatively impact intrinsic motivation as long as they were contingent on performance or completion of a task. The controversy of the role external rewards play in intrinsic motivation is particularly important in the school context. In response to Cameron and Pierce's conclusions and several commentaries indicating that the meta-analysis was flawed and conclusions unwarranted, Deci, Koestner, and Ryan (1999, as cited in Deci et al., 2001) reanalyzed the data. This new meta-analysis contradicted Cameron and Pierce's findings, indicating that expected tangible rewards are detrimental to intrinsic motivation, and this effect was particularly strong for school children (Deci et al., 2001). Deci and colleagues (2001) affirm the importance of fostering intrinsic motivation through developing interesting and challenging activities in which students are given choice rather than relying on rewards in the school context.

Environmental conditions that satisfy individuals' basic needs of autonomy, competence, and relatedness promote the development of autonomous motivation, which has important implications for educational outcomes. Sociopolitical development empowers poor youth of color to navigate structural barriers to career and educational outcomes. Moreover, sociopolitical development appears to be related to basic need satisfaction, which leads to autonomous motivation (Diemer et al., 2010; O'Connor, 1997). Therefore, autonomous motivation might mediate the relationship between sociopolitical development and educational and career outcomes. Likewise, sociopolitical development may help poor youth of color develop motivation that leads to

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positive career and educational outcomes. Latino and low-income students have relatively low career and educational expectations. Together, Sociopolitical Development Theory and Self-determination Theory may be useful in understanding and promoting career and educational expectations. To date, SPD and SDT have not been studied together; there is no published research that tests for relationships between the key variables in each. Testing for such relationships would be a unique contribution to the literature – if the two theories are related, our understanding of each theory will be enhanced and lead to important implications for interventions that promote educational and career outcomes of Latino and low-income students

Purpose of the Study

This study explored the role of autonomous motivation in educational and career outcomes among low income Latino and non-Latino youth, and clarified the relationship between sociopolitical development and autonomous motivation. Arbona (1990) called for greater research on the structural barriers that contribute to the expectation-aspiration gap experienced by Latino students. Two decades have since passed and these barriers remain problematic in the career development of Latino youth (Lopez, 2009). Sociopolitical Development Theory and Self-determination Theory highlight a set of factors that contribute to educational and career outcomes. This study uniquely combined these two theories, postulating that Self-Determination Theory can help explain the link between sociopolitical development and educational and career outcomes. By integrating theories relevant to educational and career development of low income Latino and non-Latino students, this research study sought to test the contributions of this unique set of variables to the expectations of low-income

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adolescentes. Self-Determination Theory has been relatively overlooked in career development research and this study also elucidated the role of SDT in predicting career expectations and aspirations. This study contributes to previous research on SPD and educational and career development by including low income Latino and non-Latino students. Specifically, I explored student perceptions and experiences in the school setting as they related to autonomous motivation and educational and career development.

Hypothesized Variable Relationships

The hypothesized structural model is presented in Figure 5. The outcome variables in this study included school achievement, educational and career expectations, and educational and career aspirations, referred to in this study as educational and career outcomes. As depicted in the model, sociopolitical development was hypothesized to directly predict autonomy, competence, and relatedness. Sociopolitical development was also hypothesized to directly predict autonomous motivation and indirectly predict autonomous motivation through autonomy, competence, and relatedness. Next, autonomy, competence, and relatedness were hypothesized to directly predict autonomous motivation and indirectly predict educational and career outcomes through autonomous motivation. Autonomous motivation was anticipated to significantly predict educational and career outcomes. Autonomous motivation was hypothesized to partially mediate the relationship between sociopolitical development and educational and career outcomes. In addition, satisfaction of basic psychological needs (competence, relatedness, and autonomy) was predicted to partially mediate the relationship between sociopolitical development and autonomous motivation.

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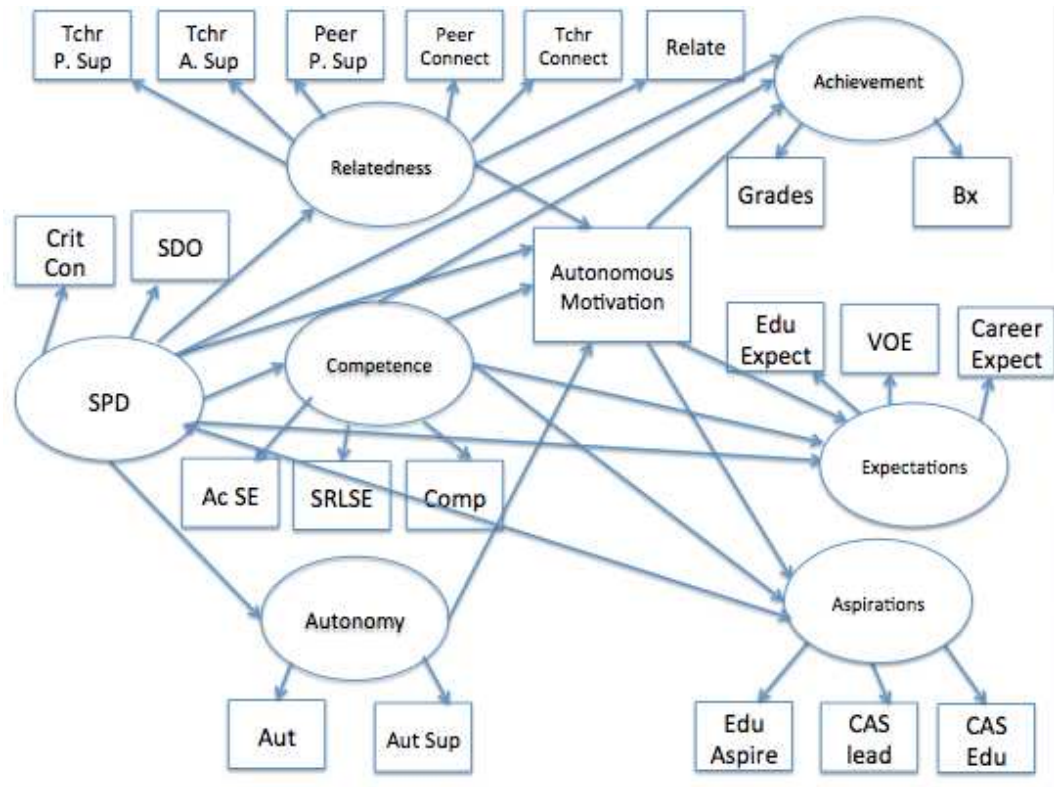
Figure 5. Hypothesized structural model. SPD = sociopolitical development, Crit Con = critical consciousness, SDO = social dominance orientation (inverse score), Tchr P. Sup = teacher personal support subscale, Tchr A. Sup = teacher academic support subscale, Peer P. Sup = peer personal support subscale, Peer Connect = connectedness to peers subscale, Tchr Connect = connectedness to teachers subscale, Relate = relatedness subscale, Ac SE = academic self-efficacy, SRLSE = self-regulated learning self-efficacy, Aut = autonomy subscale, Aut Sup = autonomy support, Bx = positive behavior, Edu Expect = educational expectations, VOE = vocational outcome expectations, Career Expect = career expectations, Edu Aspire = educational aspirations, CAS lead = leadership and achievement aspirations subscale, CAS Edu = educational aspirations subscale

CHAPTER II

METHODS

Participants

Participants were 1,198 high school students from two different high schools in a medium sized city in the Pacific Northwest. Between 52.6 and 62.6 percent of students enrolled in participating schools were identified as Latino in the 2011-2012 school year. Between 79.4 and 84.9 percent of student were eligible for free ore reduced lunch at the participating schools. In examining the range of responses it was noted that several students reported their age to be above 18. As the study participants were primarily 9th and 10th grade students, participants who reported their age to be above 18 were removed from analyses. As a result, 1,196 students were included in the analyses.   602 (50.3%) of the participants identified as female; 11 (< 1%) did not indicate their sex. Participants' ages ranged from 13-18 (Mean=14.67). 839 (70.2%) of the participants were in the 9th grade, 350 (29.3%) were in the 10th grade, and 4 (< 1%) were in grades 11 or 12. 609 (50.9%) of participants identified as Latino/a, 273 (22.8%) identified as White, 168 (14.0%) identified as multi-ethnic, 43 (3.6%) identified as Asian, 35 (2.9%) identified as Pacific Islander, 20 (1.7%) identified as Black, 18 (1.5%) identified as American Indian, and 30 (2.5%) identified as "other" or did not specify their ethnic identity. 805 (67.3%) of participants were eligible for free lunch, 123 (12%) were eligible for reduced lunch, and 79 (6.6%) did not indicate their free or reduced lunch eligibility. 101 (8.4%) of participants reported having an Individualized Education Plan (IEP); 155 (12.9%) of participants did not indicate whether or not they had an IEP.

Procedure

        Participants were recruited from two public high schools in Oregon that were

identified as having a significant number of low-income and Latino students. At both

schools, participants completed surveys at one time-point during their social studies class.

No identifying information was collected. Passive consent was obtained by sending an

informational handout home to parents the week before data collection occurred. Parents

were invited to email or call the principle investigator if they did NOT want their child to

participate. The surveys, available in both English and Spanish, took between 20 and 50

minutes to complete. Students received oral and written instructions before beginning the

survey and the principle investigator or a research assistant was available to answer any

questions. The survey is available in Appendix A.

Measures

        Demographic questions. Participants provided information about their age,

gender, ethnicity, and grade. Participants also reported the language(s) they speak on a

regular basis and whether or not they have an IEP. Participants reported their caregivers'

highest level of education using the following options: "less than high school," "high

school," "some college," "2 year or community college," "4 year college," "master's

degree or teaching credential," or "law degree, Ph.D., or a medical doctor's degree". In

addition, participants responded to one item asking, "How much money does your family

have?" by choosing one of the following options: "not enough to get by," "just enough to

get by," "we only have to worry about money for fun and extras," or "we never have to

worry about money." Finally, participants reported if they receive free lunch or reduced

lunch.

Sociopolitical development.

Social Dominance Orientation Scale. Inverse scores on the Social Dominance

Orientation Scale (SDOS; Pratto et al., 1994) were used as a measure of sociopolitical

development (Diemer & Blustein, 2006). The SDOS consists of 14 items ($\alpha = .90$)

concerning "the belief that some people are inherently superior or inferior to others and

approval of unequal group relationships" (Pratto et al., 1994; p. 745). For this study, one

item was determined to be redundant and removed for brevity. Participants were asked to

indicate how positive or negative they felt towards each object or statement. (Pratto et al.,

1994). Sample items include "Some people are just inferior to others", "All humans

should be treated equally", and "Increased economic equality". Response options

consist of a 5-point Likert type scale ranging from "1 - Very Negative" to "5 - Very

Positive". Pratto et al. (1994) found a test-retest reliability of .84. The last six items

were reverse scored (Pratto et al., 1994) and total scores for this scale were calculated by

averaging across item scores. Total scores were inversed so that lower scores indicated

lower levels of sociopolitical development.

Pratto and colleagues (1994) conducted a number of validity studies with various

undergraduate student samples. Overall, they found the SDO to have adequate

discriminant, predictive, and convergent validity. In particular, scores on the SDOS were

negatively associated with concern for others ($r = -.46$), support for social welfare

programs ($r = -.47$), support for women's rights ($r = -.40$), and support for gay and

lesbian rights ($r = -.37$). Scores on the SDOS were positively associated with support for

military programs ($r = .44$), anti-Black racism ($r = .55$), patriotism ($r = .45$), and sexism (r

= .57; Pratto et al., 1994). The modified measure had an inter-item reliability of .82 for the current study.

   Critical Consciousness measure. Critical Consciousness was measured using the Adolescent Critical Consciousness measure (McWhirter & McWhirter, 2009), which was developed to assess change in critical consciousness among participants in an afterschool program for Spanish speaking Latino students. This measure served as another indicator of sociopolitical development. This measure consists of 10 items with response options on a 5-point, Likert-type scale that range from "1 - Strongly Disagree" to "5 -Strongly Agree". Sample items include "Racism and discrimination affect my own life today", "I discuss current economic and political events with my parents or other family members", and "I am motivated to try to end racism/classism and discrimination". The items in this measure have face validity for measuring components of SPD, namely critical consciousness and motivation to reduce social and economic inequality (Diemer et al., 2009). According to Diemer and Hsieh (2008) critical consciousness and motivation can be captured by four components of sociopolitical development and include "(a) a consciousness of and motivation to reduce social and economic inequalities, (b) discussion of social and political issues and events, (c) a motivation to help others in one's community, and (d) participation in community or social-action groups" (pp. 260-261). The Adolescent Critical Consciousness measure was developed specifically for Latino high school students and based on the four components of sociopolitical development used in Diemer's work (e.g. Diemer & Hsieh, 2008; Diemer, 2009; Diemer et al., 2010) as well as consideration of Cerezo and McWhirter's (in press) recommendations.

For the current study, several items were changed to measure sociopolitical development of low-income and Latino high school students. Specifically, instead of the term "racism," "racism/classism" was used. Total scores for this scale were obtained by averaging scores across items. Higher scores indicate higher levels of sociopolitical development. For the current study an internal consistency reliability coefficient of .80 was obtained.

Autonomy.

Learning Climate Questionnaire. Perceived autonomy support was measured using a modified version of the Learning Climate Questionnaire (LCQ; Williams & Deci, 1996) that was adapted by Hadre and Reeve (2003) for a high school sample. This measure consists of 8 items ($\alpha = .92$) on a 5-point Likert-type scale ranging from "1 - Strongly Disagree" to "5 - Strongly Agree." Sample items include: "My teachers provide me choices and options" and "When I offer suggestions to my teachers they listen carefully and consider my suggestions seriously" (Hadre & Reeve, 2003). Williams & Deci (1996) found that scores on the LCQ were positively correlated with autonomy orientation ($r = .24$). Autonomy orientation refers to the tendency to be guided by autonomy-supportive information and function in self-determined ways. Total scores for this scale were obtained by averaging scores across items. Higher scores indicate greater perceived autonomy support. For the current study an internal consistency reliability coefficient of .91 was obtained.

Basic Psychological Needs Satisfaction Scale - Autonomy. In addition to the modified LCQ, the autonomy subscale of Basic Psychological Need Satisfaction Scale (BPN scale; Gagné, 2003) was used to measure general perceived autonomy. This

subscale consists of 7 items (α = .86) on a 5-point, Likert-type scale ranging from "1 - Not true at all" to "5 - Very true" (Gagné, 2003). Sample items include "I generally feel free to express my opinion" and "I feel like I am free to decide for myself how to live my life." No validity data is available for this scale. However, it was selected based on face validity and because it was developed as a measurement of basic psychological need satisfaction as defined by Self-determination Theory. Face validity indicates that items in this scale are associated with the definitions of basic psychological needs as presented by Deci and Ryan (1985). Negatively worded items were reversed scored and total scores for this subscale were obtained by averaging scores across items. Higher scores indicate higher levels of autonomy satisfaction. For the current study an internal consistency reliability coefficient of .56 was obtained.

Competence.

Children's Self-efficacy Scales. The self-efficacy for self-regulated learning subscale and the self-efficacy for academic achievement subscales of the Children's Self-efficacy Scales (Bandura, 2006) were used to measure competence. The self-efficacy for self-regulated learning subscale consists of 10 items on a 5-point Likert-type scale ranging from "1 - cannot do at all" to "5 - highly certain can do." Sample items include "get myself to study when there are more important things to do" and "plan my school work for the day." Zimmerman, Bandura, and Martinez-Pons (1992) found an internal consistency reliability coefficient of .87 for the self-efficacy for self-regulated learning scale in a diverse sample of high school students (23% Latino). This scale is correlated with self-efficacy for academic achievement (r = .51; Zimmerman et al., 1992). Moreover, Usher and Pajares (2008) used a shortened version of the self-efficacy for self-

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regulated learning scale and found that self-efficacy was significantly correlated with grade self-efficacy for science and writing (r = .57 and .47, respectively), self-concept in science and writing (r = .54 and .42, respectively), and task goals in science and writing (r = .46 and .47, respectively. Total scores for this scale were obtained by averaging scores across items. High scores indicate high levels of self-efficacy for self-regulated learning. For the current study an internal consistency reliability coefficient of .90 was obtained.

The self-efficacy for academic achievement subscale consists of 9 items on a 5-point Likert-type scale ranging from "1 - Cannot do at all" to "5 - Highly certain can do." For the present study, three items were determined to be redundant and were combined with other items for brevity. For example, "learn general mathematics" and "learn algebra" were combined as "learn math". Respondents indicated the degree to which they are confident that they can learn specific academic subjects (Bandura, 2006). Sample items include "learn science" and "learn a foreign language." Zimmerman and colleagues (1992) found an alpha coefficient of .70 for the self-efficacy for academic achievement scale. Self-efficacy for academic achievement was significantly correlated with prior grades (r = .22) and student grade goals (r = .41; Zimmerman et al, 1992). Total scores for this scale were obtained by averaging scores across items. Higher scores indicate higher levels of self-efficacy for academic achievement. For the current study an internal consistency reliability coefficient of .82 was obtained.

Basic Psychological Need Satisfaction Scale – Competence. The competence subscale of Basic Psychological Need Satisfaction Scale (Gagné, 2003) is designed to assess general satisfaction of the psychological need for competence. This subscale consists of 6 items (α = .71) on a 5-point Likert-type scale ranging from "1 - Not true at

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all" to "5 - Very true" (Gangé, 2003). Sample items include "most days I feel a sense of accomplishment from what I do" and "people I know tell me I am good at what I do." Negatively worded items were reversed scored and total scores for this subscale were obtained by averaging scores across items. Higher scores reflect higher levels of competence. For the current study an internal consistency reliability coefficient of .65 was obtained.

Relatedness.

The Hemingway: Measure of Adolescent Connectedness. The Hemingway: Measure of Adolescent Connectedness (MAC) reflects affect and action in specific relationships and contexts (Karcher & Sass, 2010) and was developed using connectedness theory that explains adolescents' needs for relatedness and belongingness. Two subscales of the MAC were used to measure relatedness in the school context: connectedness to teachers (α = .84) and connectedness to peers (α = .71). Both subscales consist of 6 items on a 5-point Likert-type scale ranging from "1 - Not at all true" to "5 - Very true." Sample items include "I usually like my teachers" and "I am liked by my classmates." Karcher (2001) found one-month test-retest reliability coefficients of .73 for connectedness to teachers to .80 for connectedness to peers. Data indicates that the MAC is appropriate for use across ethnic groups (Karcher & Sass, 2010). The relationship between scores on the MAC and scores on other measures of relatedness indicate that this measure is a valid measure of relatedness for an ethnically and geographically diverse group of high school students (Karcher, 2001). Specifically, connectedness to peers was correlated with social connectedness (r = .38) and alienation (r = -.55), and connectedness to teachers was correlated with school connectedness (r =

.32; Karcher, 2001). Negatively worded items were reversed scored and total subscale scores were calculated by averaging the scores of each item in the subscale. Higher scores indicated higher levels of connectedness. For the current study an internal consistency reliability coefficient of .81 was obtained for the connectedness to teacher subscale and .74 for the connectedness to peers subscale.

Classroom Life Instrument. Relatedness in school was also measured using three subscales of the Classroom Life Instrument (CLI: Johnson, Johnson, & Anderson, 1983). All subscales use a 5-point Likert-type scale ranging from "1- Not true at all" to "5 - Very true." The teacher academic support scale ($\alpha = .78$) consists of four items including "My teacher cares about how much I learn." The teacher personal support subscale ($\alpha = .80$) consists of four items including "My teacher cares about my feelings." The student personal support subscale ($\alpha = .78$) consists of five items including "in this class other students like me the way I am" (Johnson et al., 1983). Because this scale was used to measure relatedness with teachers and students in general, the student support items were changed from "in this class" to "in this school."

The subscales of the CLI are intended to measure the belief that teachers and other students care about and like the student as a person and care about how much the student learns and wants to help the student learn (Patrick, Kaplan, & Ryan, 2011). Patrick and colleagues (2011) found that the teacher academic and personal support subscales were significantly correlated ($r = .77$). No validity data is available for this scale. However, it was selected for this study because face validity indicates that the items in this scale correspond to the definition of relatedness as satisfying and secure connections to others within the school setting (Deci et al., 1991). Total scores for this

scale were obtained by averaging scores across items. Higher scores indicate higher

levels of support. For the current study an internal consistency reliability coefficient of

.90 was obtained for the teacher academic support subscale, .88 for the teacher personal

support subscale, and .91 for the peer personal support subscale.

Basic Psychological Need Satisfaction Scale - Relatedness. The relatedness

subscale of Basic Psychological Need Satisfaction Scale consists of 8 items (α = .86) on

a 5-point Likert-type scale ranging from "1- Not true at all" to "5 - Very true" (Gangé,

2003). Sample items include "I really like the people I interact with" and "People in my

life care about me." Negatively worded items were reversed scored and total subscale

scores were calculated by averaging the scores of each item in the subscale. Higher

scores indicated higher levels of relatedness. For the current study an internal consistency

reliability coefficient of .77 was obtained.

Autonomous motivation.

Academic Motivation Scale. Autonomous motivation was measured using the

Academic Motivation Scale (AMS), a measurement that was developed on the basis of

SDT (Vallerand et al.,1993). The AMS consists of seven subscales, six of which were

used in this study. In this study, two subscales measured different types of intrinsic

motivation including motivation to know (α = .79) and motivation to accomplish (α =

.78). Three subscales measured extrinsic motivation including external (α = .76),

introjected (α = .81), and identified regulation (α = .60). The final subscale measured

amotivation (α = .86; Vallerand et al., 1993). The AMS, translated into English from the

original French version of the measure, was found to be as reliable as the French version

(Vallerand et al., 1992). The AMS consists of 28 items on a 5-point Likert-type scale

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ranging from "1 – Strongly disagree" to "5 – Strongly agree." Participants are asked to indicate the extent to which they agree with each item as a reason for why they go to school. The high school version of the AMS was adapted from the college version (Vallerand, Blais, Brière, Pelletier, 1989); the high school measure has the same items but asks about reasons for going to high school rather than going to college. Because this survey was completed by English Language Learners some items were adjusted at the recommendation of school personnel to aid in comprehension. For example, the word "pleasure" was changed to "joy" throughout the measure. Sample items include "because I need at least a high school degree in order to find a high paying job later on," "because I experience joy and satisfaction when learning new things," and "honestly I don't know, I feel like I am wasting my time at school." The one-month test-rest reliability coefficient of $r = .79$ supports the reliability of the measure (Vallerand et al.,1992).

Scores from the subscales were used to compute a relative autonomy index (RAI; Delisle, Guay, Senecal, & Larose, 2009). Using the autonomy continuum described by Deci & Ryan (1985), positive weights were given to autonomous subscales (identified and intrinsic motivation) and negative weights to controlled subscales (amotivation, external motivation, and introjected motivation). Specifically, the average score for the amotivation subscale were multiplied by -2; the external and introjected subscale scores were averaged together and multiplied by -1; the identified subscale's average score were multiplied by +1; and the intrinsic subscale scores were averaged together and multiplied by +2 (Delisle et al., 2009). Weighted scores were summed, resulting in the relative autonomy index scores. High scores reflect higher levels of autonomous academic motivation (Delisle et al., 2009).

Vallerand and colleagues (1993) provide support for the validity of the

AMS with junior college students. A seven-factor structure indicates that the AMS

measures different types of motivation (Vallerand et al., 1992). Scores on the AMS were

related to Gottfredson's measure of intrinsic motivation (r = .67 for motivation to know

subscale and r = -.46 for amotivation subscale), value in learning something interesting (r

= .50 for motivation to know subscale and r = -.39 for amotivation subscale) and

passivity in the classroom (r = .26 for amotivation subscale and r = -.19 for motivation

for stimulation subscale). Moreover, correlations between the AMS subscales were in

line with the pattern predicted by SDT such that adjacent subscales (i.e., introjection and

identification) had high positive correlations and subscales on the opposite ends of the

continuum (i.e., amotivation and intrinsic motivation) had negative correlations

(Vallerand et al., 1993). For the current study an internal consistency reliability

coefficient of .85 was obtained for the intrinsic motivation subscales, .78 for the external

motivation subscale, .84 for the introjected motivation subscale, .77 for the identified

motivation subscale, and .86 for the amotivation subscale.

Career and educational outcomes.

Vocational Outcome Expectations Scale. Career expectations were measured

using a revised version of the Vocational Outcome Expectations Scale (VOE; McWhirter,

Rasheed, & Crothers, 2000). This 7-item measure (α = .97) used a Likert-type scale

ranging from "1-strongly disagree" to "5-strongly agree". Sample items include "My

career planning will lead to a satisfying career for me" and "I have control over my career

decisions". This scale was revised from the 12-item version for brevity and items

pertaining respondents' expectations of career aspirations were selected for use in this

study. In a study of Latino high school students, mean scores on the original 12-item version of the VOE were strongly correlated with the mean score of the 7-item version used in this study (r = .995). In a study of Latino high school students, these seven items of the VOE scale were found to be mildly correlated with participants' future work and educational expectations (r = .13). Total scores were calculated by averaging the scores of each item in the scale. For the current study an internal consistency reliability coefficient of .92 was obtained.

Career Aspiration Scale. Career Aspirations were measured using the Career Aspiration's Scale (Gray & O'Brien, 2007). Gray and O'Brien (2007) defined career aspirations as the extent to which individuals aspire to leadership positions and continued education within their careers. This measure (α = .78) consists of 8 items on a 5-point Likert-type scale ranging from "1 – Not true at all" to "5 – Very true." The CAS consists of two subscales; the Leadership and Achievement subscale (α = .72) consists of six items and the Educational Aspirations scale (α = .63) consists of two items. Item scores were summed to calculate total subscale scores with higher scores indicating greater aspirations within a given career (Gray & O'Brien, 2007). Sample items include "I hope to become a leader in my career field" and "I would be satisfied just doing my job in a career I am interested in". Test-retest reliability (r = .84) indicates that total CAS scores were stable over a two-week time period for college females. Subscales scores for the leadership and achievement aspiration subscale (r = .84) and educational aspiration subscale (r = .71) were also stable over time.

Gray & O'Brien (2007) found positive relationships between scores on the CAS and career decision self-efficacy (r = .55), occupational self-efficacy (r =.48), and

instrumentality (traits including assertiveness, ambition, and independence; r = .42). A negative relationship was found between scores on the CAS and relative importance of career versus family (r = -.20). Gray and O'Brien (2007) also found no relationship between scores on the CAS and attachment to mother (r = .09). Negatively worded items were reversed scored and total subscale scores for the Leadership and Achievement Aspirations subscale and the Educational Apirations subscale were calculated by averaging the scores of each item in the subscale. Higher scores indicate higher levels of aspirations. For the current study an internal consistency reliability coefficient of .69 was obtained for the leadership and achievement subscale and .13 for the educational aspirations subscale.

School achievement. School achievement was measured using student self-report of academic performance and behavior problems. Participants reported their grades on a five-point scale ("Mostly Fs" to "Mostly As"). Participants who chose two grade categories were given the score for the higher grade. Potential scores ranged from 1 to 5 and higher scores indicated higher grades.   Participants also reported the number of office discipline referrals received during the past school year. Participants chose between the following options: 0-1 referrals, 2-5 referrals, or more than 6, categories used extensively in the school psychology literature for measuring problem behavior (McIntosh, Frank, & Spaulding, 2010). Potential scores ranged from 1 to 3 with higher scores indicating less problem behavior and higher school achievement.

Expectations and aspirations. Participants' educational expectations were measured using the question, "When you think about your life what level of education do you think you will have when you are 30?" (Hellenga, Aber, & Rhodes, 2002).

Participants chose among the following options: "less than high school," "high school," "some college," "2 year or community college (i.e. nursing degree or associates degree)," "4 year college (a bachelor's degree)", "master's degree or teaching credential," or "law degree, Ph.D., or a medical doctor's degree (M.D.)."

Educational aspirations were measured with the question "if you were completely free to choose, what level of education would you like to achieve?" (Hellenga et al., 1994). Participants responded using the same educational options in the expectation item. (Hellenga et al., 1994).

Participants completed one item that was created for this study to measure career expectations in relation to career aspirations. Participants responded to the item "Think about the career you want to have when you are 30 and choose the answer that is most true for you" by choosing one of the following options: "I expect to be able to have this career in the future", "I am not sure whether or not I will be able to have this career in the future", and "I do not expect I will be able to have this career in the future". Potential scores ranged from 1 to 3 with higher scores indicating greater consistency between career aspirations and expectations.

CHAPTER III

RESULTS

This section describes the results of preliminary analyses, testing and revision of the measurement model, and testing the final structural model. The measurement model shows the pattern of indicators for each latent construct and is used to explore interrelationships among latent constructs (Schreiber, Stage, King, Nora, & Barlow, 2006). The measurement model was analyzed using confirmatory factor analysis (CFA). The structural model shows interrelationships among latent constructs and observed variables in the hypothesized model and was analyzed using structural equation modeling (SEM; Schreiber et al., 2006). SEM was used to measure model fit, direct and indirect effects, variance explained by the structural model, and results of invariance testing to determine the role of SES and ethnicity.

Preliminary Analyses

Table 1 presents bivariate correlations, internal consistency, means, and standard deviations for all variables included in the final structural model. Mean scale and subscale scores were computed for participants who answered at least 80 percent of the items in each measure. Missing data ranged from less than one percent for the autonomous motivation scale to 16.5 percent for the SES aggregate score. Little's missing completely at random (MCAR) test was used to examine the pattern of missingness. Scale scores in which an individual left more than 80 percent of the items blank were considered missing. In addition, single items included in the model that were left blank were also considered missing. The data was found to be MCAR, $\chi^2(1036) = 1063.53, p = .49$.

Histograms and skewedness and kurtosis values for each model variable were examined to assess the normality assumption. Results demonstrated that data was within expected ranges, and all values of skew and kurtosis values were between -2 and 2. Therefore, it was concluded that the normality assumption was met (Kline, 2011). Next, scatterplots of bivariate relationships among mean scores were explored and relationships were found to be linear.

The 1,196 participants were randomly split into two samples using SPSS: A calibration sample (N=597) and a validation sample (N=599). The calibration sample was used initially to test the hypothesized model and the validation sample was used to cross-validate the measurement and structural models (Klem, 1995). As recommended by Anderson and Gerbing (1988), data analysis occurred in two steps. First, a series of confirmatory factor analyses (CFA) was used evaluate the measurement model by exploring the fit of indicators to their latent constructs. Next, relationships among latent constructs and observed variables were explored by testing the structural model. In addition, measurement and structural models were examined to determine if model fit differed as a function of SES and ethnicity. Increment fit using the Comparative Fit Index (CFI) and Tucker Lewis Index (TLI), and absolute fit using Root Mean Square Error of Approximation (RMSEA) and standardized root mean square residual (SRMR) were used to assess adequacy of fit of the model to the data. Because of the large sample size in this study, the Chi-square statistic was used as a descriptive goodness-of-fit index rather than as formal criteria for goodness-of-fit (Schermelleh-Engel, Moosbrugger, & Müller, 2003). Goodness-of-fit criterion were utilized such that cut-off criteria of TLI values greater than .90 (Kenny, 2012), CFI values greater than or equal to .95, SRMR values

Table 1

Correlation Matrix with Means and Standard Deviations

Variable	*M*	*SD*	α	1	2	3	4	5	6	7	8	9	10
1. Critical Consciousness	3.46	.61	.80	-									
2. Social Dominance Inv.	3.81	.65	.82	.37*	-								
3. Competence	3.41	.68	.65	.24*	.18*	-							
4. Teacher Personal Support	3.12	1.06	.88	.34*	.18*	.41*	-						
5. Peer Connectedness	3.51	.78	.74	.30*	.23*	.41*	.43*	-					
6. Autonomy Support	3.37	.82	.91	.41*	.23*	.45*	.70*	.45*	-				
7. Autonomous Motivation[a]	3.47	2.86	-	.46*	.29*	.46*	.48*	.44*	.55*	-			
8. Outcome Expectations	4.12	.70	.92	.44*	.27*	.35*	.38*	.36*	.43*	.60*	-		
9. Education Expectations[c]	5.06	1.41	-	.33*	.19*	.23*	.25*	.21*	.24*	.42*	.43*	-	
10. Grades	3.79	.99	-	.25*	.21*	.31*	.22*	.19*	.23*	.40*	.32*	.37*	-
11. Positive Behavior	2.67	.65	-	.16*	.20*	.14*	.16*	.10*	.18*	.26*	.13*	.17*	.33*

Notes. All scores had potential range of 1-5 unless noted. (a) range = -12 – 1, (b) range = 1-3, (c) range = 1-7.
*Significant at the *p* < .01 level.

less than .05, and RMSEA values less than .06 (Hu & Bentler, 1999; Kline, 2011) were considered good fit. A conclusion of good fit was made if at least four of the fit indices showed good fit. A conclusion of adequate fit was made if model results showed close to good fit on more than one index and good fit on other indices. Chi-square difference tests were used for invariance testing. Due to the large sample size, a p-value of .01 was used for significance testing throughout analyses. I used Mplus 7 (Muthen & Muthen, 2012) and maximum likelihood estimates (MLE) to run CFAs, SEM, and calculate path coefficients and model fit indices.

Measurement Model

Confirmatory Factor Analysis was utilized to explore the fit of indicators to each intended latent construct (see Figure 5 for the original model). This process took place in steps. At each step, fit indices, indicator loadings, and modification indices were explored. Modifications were made to develop an adequate measurement model (see Figure 6 for the final measurement model). This process was followed for the following latent constructs: educational and career aspirations, educational and career expectations, school achievement, sociopolitical development (SPD), autonomy, competence, and relatedness. For each CFA, latent constructs were allowed to correlate.

First, the measurement model of the three latent outcome constructs (aspirations, expectations, and achievement) was tested. This included the indicators of educational aspirations and educational/achievement and leadership subscales of the CAS for aspirations; educational expectations, vocational outcome expectations, and career expectations for expectations; and grades and positive behavior for school achievement.
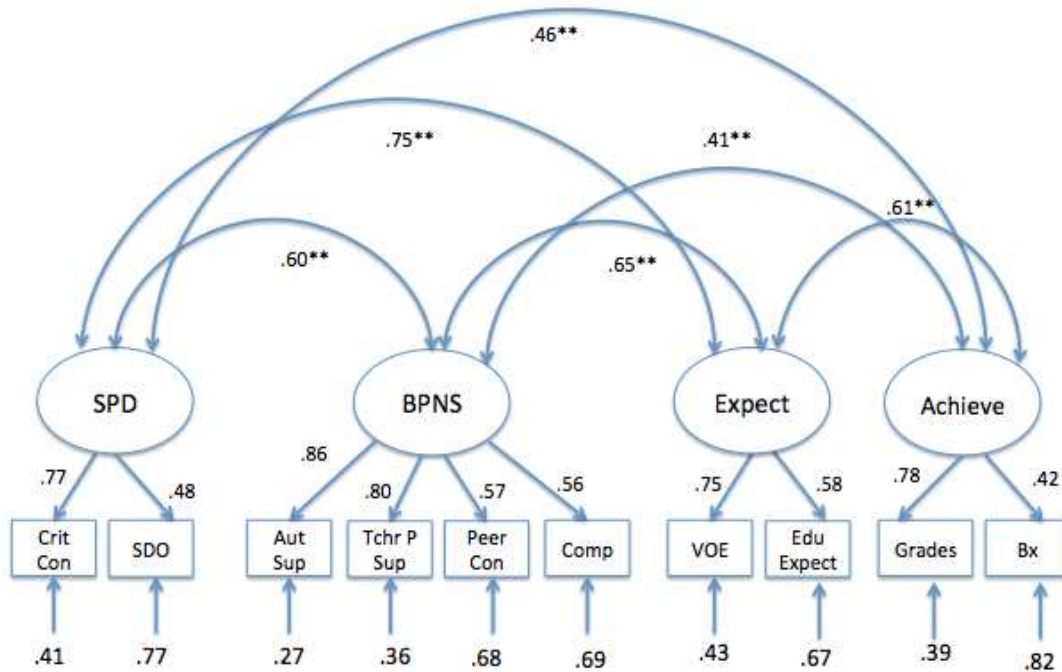
Figure 6. Final measurement model. SPD = sociopolitical development, Crit Con = critical consciousness, SDO = social dominance orientation (inverse score), BPNS = Basic Psychological Need Satisfaction, Aut Sup = autonomy support, Tchr P Sup = teacher personal support subscale, Peer Con = connectedness to peers subscale, Comp = competence subscale, Expect = educational and career expectations, VOE = vocational outcome expectations, Edu Expect = educational expectations, Achieve = school achievement, Bx = positive behavior.

Results indicated poor model fit (RMSEA = .12, SRMR = .05 CFI = .87, TLI= .79, $\chi^2(17) = 169.24$, $p < .001$). A low inter-item reliability of the education subscale of the CAS ($\alpha =.15$) indicated that this measure of educational aspirations was problematic. Moreover, review of modification indices indicated that the relationship between the educational level participants expected to achieve and aspired to achieve were highly related. Therefore, educational and career aspirations was removed as a latent construct from the model. This decision is consistent with theory, which indicates that the aspiration-expectation gap can be attributed to relatively low expectations. Thus, the

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focus of this study is to understand factors that positively predict career and educational

expectations. A new measurement model of the outcome variables including achievement

and expectations showed improved fit (RMSEA = .08, SRMR = .03, CFI = .96, TLI= .91,

$\chi^2(4) = 20.314$, $p<.001$). Upon further scrutiny of modification indices, it appeared that

the career expectations measure might be redundant with the vocational outcome

expectations measure. Therefore, career expectations was removed as an indicator of

career and educational expectations. In the revised measurement model grades and

positive behavior served as indicators of school achievement, and vocational outcome

expectations and educational expectations served as indicators of educational and career

expectations. This model showed good fit (RMSEA = .00, SRMR = .00, CFI = 1.00,

TLI= 1.01, $\chi^2(1) = .4$, $p = .53$).

Next, the latent construct, SPD was added to the measurement model with

expectations and achievement. Critical consciousness and the inverse of social

dominance orientation were used as the indicators of SPD. This model showed good fit

(RMSEA = .07, SRMR = .03, CFI = .97, TLI= .92, $\chi^2(6) = 24.04$, $p < .001$).

Next, latent constructs of competence, relatedness, and autonomy and their

respective indicators were added to the measurement model along with expectations,

achievement, and SPD. Autonomy support and the autonomy subscale of the BPN scale

were used as indicators of autonomy; academic self-efficacy, self-regulated learning self-

efficacy, and the competence subscale of the BPN scale were used as indicators of

competence; teacher personal support, teacher academic support, peer personal support,

connectedness to teachers, connectedness to peers, and the relatedness subscale of the

BPN scale were used as indicators for relatedness. This model showed poor fit (RMSEA

= .12, SRMR = .07, CFI = .81, TLI= .76, $\chi^2(104) = 961.49$, $p < .001$). Further scrutiny

demonstrated that the indicators for competence, relatedness, and autonomy had high

intercorrelations. Therefore, these three constructs were combined into on construct of

Basic Psychological Need Satisfaction (BPNS) and the number of indicators was reduced

to avoid redundancy. Teacher personal support, connectedness to peers, the competence

subscale of the BPN scale, and autonomy support were used as indicators of BPNS.

When added to the measurement model with SPD, achievement, and expectations, this

final measurement model showed adequate fit (RMSEA = .07, SRMR = .05, CFI = .94,

TLI= .91, $\chi^2(29) = 118.80$, $p <.001$). To confirm the revised measurement model, it was

tested with the validation sample (N =599) and good fit was found (RMSEA = .07,

SRMR = .05, CFI = .95, TLI= .92, $\chi^2(29) = 107.04$, $p <.001$). As a final step, the

measurement model was tested in the combined full sample (N =1,196; See Figure 6) and

good fit was found (RMSEA = .07, SRMR =.04, CFI = .95, TLI= .92, $\chi^2(29) = 189.43$, p

<.001).

Structural Model

The final measurement model led to a revision of the hypothesized structural

model (see Figure 7). The relative strength of predictor variables in predicting outcome

variables was explored by testing the structural model. In addition, tests of mediation

were conducted for the potential mediating effects of BPNS in explaining the relationship

between autonomous motivation and SPD as well as the potential mediating effects of

autonomous motivation in explaining the relationship between SPD and educational and

career outcomes.

The structural model showed good fit (RMSEA = .07, SRMR = .04, CFI = .95, TLI= .92, $\chi^2(37)$ = 140.31, p <.001). To determine if the structural model could be replicated, the model was tested with the validation sample (N = 599). Goodness-of-fit indices demonstrated good fit (RMSEA = .06, SRMR = .04, CFI = .95, TLI= .93, $\chi^2(37)$ = 128.56, p <.001). Next, a multiple group analysis was performed to test for model invariance across the two sample groups. This analysis compared two models: one in which the parameter values were free to vary across groups and one in which values were constrained across groups. Results indicated that model fit did not vary significantly among the two groups ($\chi^2_{diff}(8)$ = 17.70, p =.02). As a final step, the structural model was tested in the combined full sample (N =1,196; Figure 7) and good fit was found (RMSEA = .07, SRMR =.04, CFI = .95, TLI= .93, $\chi^2(37)$ = 222.72, p <.001).
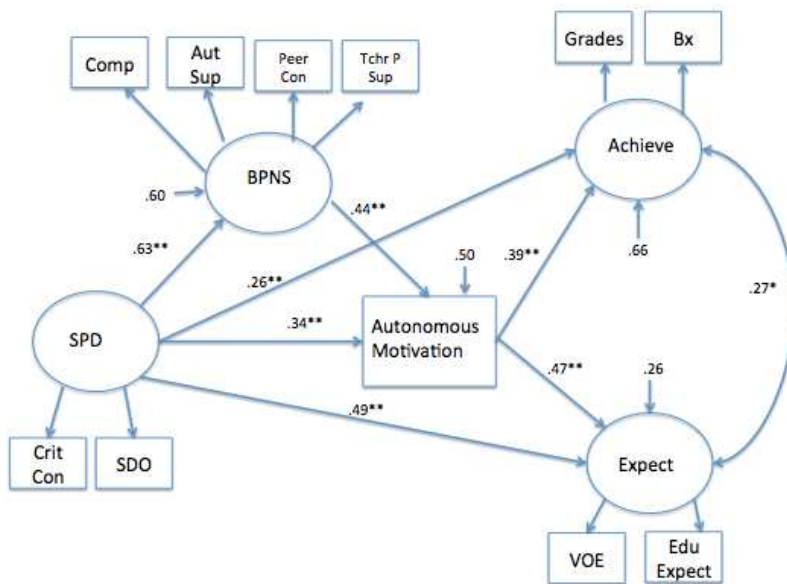
Figure 7. Final structural model. SPD = sociopolitical development, Crit Con = critical consciousness, SDO = social dominance orientation (inverse score), BPNS = basic psychological need satisfaction, Tchr P Sup: teacher personal support, Peer Con = connectedness to peers, Comp = competence, Aut Sup = autonomy support, Achieve = school achievement, Bx = positive behavior, Expect = career and educational expectations, VOE = vocational outcome expectations, Edu Expect = educational expectations. * $p < .01$; ** $p < .001$

Direct and Indirect Effects

Table 2 presents the standardized coefficients for the direct and indirect effects of the structural model for the full sample. The squared multiple correlation coefficients (R^2) indicate that the structural model accounts for 74.1 percent of the variance in educational and career expectations, 34.3 percent of the variance in school achievement, 40 percent of the variance in BPNS, and 49.8 percent of the variance in autonomous motivation. Indirect effects were explored to determine if BPNS mediated the relationship between SPD and autonomous motivation, and if autonomous motivation mediated the relationship between SPD and outcome variables. Results indicated that partial mediation was evident in each of these situations (see Table 2).

Invariance Testing for SES and Ethnicity

Using the full sample (N=1,196), factorial invariance was explored to determine if the measurement model was a good fit across SES and ethnicity groups. As an initial step, items that contributed to the measurement of SES were standardized and combined to form an aggregated SES score. These items included caregiver(s)'s highest level of education, receipt of free/reduced lunch, and the item asking about the amount of money participants' families have. Students who had a standardized SES score below the mean were considered low SES (n=563) and students who scored above the mean were considered high SES (n=435). Students were also grouped by ethnicity with Latino/a students in one group (n=709) and all other students in a comparison group (n=472). Multiethnic students who identified Latino/a as a part of their ethnicity were placed in the Latino/a group.

Table 2

Structural Model: Standardized Direct and Indirect Effects

Paths	Estimate	SE
Achievement with Expectations	.27*	.09
Direct Effects		
Expectations ON SPD (A)	.49**	.05
Achievement ON SPD (B)	.26**	.06
Expectations ON Autonomous Motivation (C)	.47**	.05
Achievement ON Autonomous Motivation (D)	.39**	.06
Autonomous Motivation ON BPNS (E)	.44**	.04
Autonomous Motivation ON SPD (F)	.34**	.05
BPNS ON SPD (G)	.63**	.03
Indirect Effects		
C•F	.16**	.02
C•E•G	.13**	.02
D•F	.13**	.02
D•E•G	.11**	.07
E•G	.28**	.03
C•E	.21**	.05
D•E	.17**	.03

Notes: **$p < .01$ * $p<.001$. SPD = sociopolitical development, BPNS = basic psychological need satisfaction.

Two analyses were used to explore factorial invariance. First, the measurement model was tested constraining factor loadings to be the same among groups. Next, a specific measurement model was created in order to allow factor loadings to vary across groups. Here, one factor within each construct was set to one. The chi-square difference test indicated factorial invariance for SES ($\chi^2_{diff}(6) = 6.88$, $p = .33$). This means that the measurement model fit did not vary as a function of SES. Ethnic group differences were found in the measurement model ($\chi^2_{diff}(6) = 18.93$, $p < .01$). Examination of factor loadings and interrelationship of variables indicated that the factor loadings for the indicators of BPNS were significantly different for Latino and non-Latino students. However, all indicators loaded significantly onto the latent construct for both groups and the magnitude of difference between factor loadings for both groups was minimal. In addition, the relationship between SPD and educational and career expectations was stronger for Latino students than non-Latino students. As this difference in relationship is theoretically supported (Diemer, 2009), no changes to the measurement model were made as a result of this finding.

Next, the overall structural model was tested for invariance with the intention of exploring individual paths if the model varied among groups. Structural model invariance was found for both SES ($\chi^2_{diff}(8) = 17.66$, $p =.02$) and ethnicity ($\chi^2_{diff}(8) = 12.43$, $p =.13$).

CHAPTER IV

DISCUSSION

The current study tested the use of Sociopolitical Development Theory and Self-determination Theory in explaining factors that contribute to educational and career outcomes. This study uniquely combined these two theories by postulating that autonomous motivation mediates the relationship between sociopolitical development and educational and career outcomes. Self-determination theory has been relatively overlooked in career development research; therefore, this study contributes to previous research by testing the role of SDT in predicting career expectations. This study contributes to previous research on the role of SPD in educational and career development by including low income Latino and non-Latino students. By integrating theories relevant to the educational and career development of low-income Latino and non-Latino students, this research study identified factors related to school achievement and educational and career expectations. Moreover, this study has potential implications for interventions that promote positive educational and career outcomes among high school students in low-income high schools.

This chapter discusses the findings of the current study, theoretical implications, implications for practice and research, and study limitations and strengths. First, I will describe the findings related to the final measurement and structural models. Next, I will discuss the role of SES and ethnicity in the study results. I will then review the results from a theoretical perspective and provide implications for future practice and research. Finally, I will review the strengths and limitations of the study.

The final measurement model reflects several changes to the hypothesized

variable relationships. First, the interrelatedness of competence, relatedness, and autonomy indicated that these constructs are better measured as one construct of basic psychological need satisfaction than as three unique constructs. This is consistent with other measurement models used to test Self-determination Theory (e.g. Standage, Duda, & Ntoumanis, 2005). In combining relatedness, competence, and autonomy into one construct, the number of indicators was reduced to eliminate repetitive measurement. Other changes were made to outcome variables. Career and educational aspirations was removed as a latent construct from the measurement model because of poor inter-item reliability of the Career Aspiration Scale and high intercorrelations among educational aspirations and educational expectations. Because the focus of the study is to understand factors that lead to relatively lower expectations (Arbona, 1990; Diemer & Hsieh, 2008; Lopez, 2009), the use of expectations without aspirations in the model was justified. The final measurement model presents a simplified model for exploring the study hypotheses.

The structural model was revised once prior to testing to account for changes to the measurement model. The hypothesized structural model was found to be a good fit for the data and no modifications were made; all relationships were found in the expected positive direction. As expected, sociopolitical development directly predicted career and educational outcomes. Specifically, students with higher levels of sociopolitical development had higher levels of school achievement and educational and career expectations. Sociopolitical development also directly influenced basic psychological need satisfaction and autonomous motivation. That is, high school students who had higher levels of sociopolitical development were more likely to have higher basic psychological need satisfaction and autonomous motivation. Moreover, sociopolitical

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development indirectly predicted autonomous motivation through basic psychological needs indicating that BPNS partially mediates the relationship between SPD and autonomous motivation. BPNS directly predicted autonomous motivation such that students with higher levels of basic psychological need satisfaction had higher levels of autonomous motivation. BPNS indirectly predicted educational and career outcomes through autonomous motivation. Autonomous motivation directly predicted career and educational outcomes demonstrating that students with higher levels of autonomous motivation were more likely to have higher levels of school achievement and higher career and educational expectations. Autonomous motivation was found to partially mediate the relationship between SPD and career and educational outcomes.

No SES or ethnic group differences were found for the structural model. This is surprising given that the relationship between sociopolitical development and factors related to motivation and career and educational outcomes would be expected to be lower for students who do not face sociopolitical barriers. There are several possible explanations for structural invariance. First, an aggregate measure of SES was created using standardized scores on a number of measurements so that high SES was measured relative to other participants. As a whole, the participants in this study were from low-income families, as indicated by the high percentage of participants receiving free or reduced lunch. Therefore, structural invariance based on SES may be a function of the general homogeneity of SES across the full sample. Factors related to SES contribute to the disparity in educational and career outcomes for Latino students (Arbona, 1990; Constantine et al., 1998, Hill & Torres, 2010; Simon et al., 2011). The present findings suggest that among low income students, a similar set of relationships among factors

accounts for career and educational outcomes among Latino and non-Latino students, likely due to the experience of structural barriers (Arbona, 2000; Hotchkiss & Borrow, 1996; Jackson & Nutini, 2002; White House Task Force on Middle Class Families, 2009).

A second explanation for the structural invariance found in this study warrants further attention. Perhaps all low income students, regardless of their personal experience of sociopolitical barriers, benefit from awareness of and motivation to transform structural inequality in their communities. This explanation should be further examined in research with White middle-class students. In general, the findings of this study indicate that sociopolitical development may serve as a protective factor for all high school students in low-income and ethnically diverse communities. Watts and colleagues (2003) indicate that "SPD is relevant to anyone living in an oppressive society" (pg. 186). SPD research has not focused on those who hold privileged identities but this study points to the possibility that awareness of and motivation to address inequality provides a developmental resource for everyone who engages in the opportunity structure.

Theoretical Implications

The findings of the current study provide support for the utility of Sociopolitical Development Theory and Self-determination Theory in understanding adolescent career and educational development. In addition, results indicate that SDT contributes to our understanding of a potential mechanism by which SPD predicts career and educational outcomes. In the following sections I will describe the theoretical implications of the current study for SPD and SDT independently followed by a summary of how SPD and

SDT might work together to explain career and educational outcomes among low income Latino and non-Latino students.

Sociopolitical Development Theory. For the current study, sociopolitical development was conceptualized as the awareness of structural inequality and attitudes and motivation aimed at transforming inequity in one's environment (Diemer, 2009). Participants who showed higher levels of sociopolitical development had higher levels of career and educational expectations and school achievement. This supports the basic tenet of SPD, which theorizes that students with higher levels of sociopolitical development will have more positive academic and career-related outcomes (Chronister & McWhirter, 2006; Diemer & Hsieh, 2008; Diemer et al., 2010; Diemer, 2009; O'Connor, 1997). Academic achievement and career and educational expectations in high school are predictive of later occupational and educational attainment in high school (Diemer, 2008). This study is consistent with previous research indicating that sociopolitical development predicts positive career and educational outcomes that may lead to subsequent occupational attainment.

The current study included a diverse sample of high school students. Therefore, the measurement model was explored for factorial invariance to determine if group differences were evident in the measurement of latent constructs. No differences were found for SES, however, ethnic differences in the measurement model were identified. One specific difference was a stronger relationship between SPD and expectations for Latino students than for non-Latino students. Latino students perceive more barriers to postsecondary plans and career development (Constantine et al, 1998, Diemer, 2009; Diemer et al., 2010; Diemer & Hsieh, 2008, Lopez, 2009; Morsillo & Prilleltensky,

2007). Diemer and colleagues (2010) postulate that sociopolitical development helps individuals negotiate barriers to academic and career development. Together, these conclusions provide an explanation for the finding that sociopolitical development is more strongly correlated with expectations for Latino students than non-Latino students.

Self-determination Theory. According to SDT, satisfaction of basic psychological needs (competence, relatedness, and autonomy) is necessary for the development of autonomous motivation (Deci et al.,1991; Ryan & Deci, 2000). Autonomous motivation is linked to many positive educational outcomes including greater academic achievement, persistence, and school engagement (Deci et al., 2001; Deci et al., 1991 Ryan & Deci, 2000). Consistent with SDT, this study found a direct relationship between BPNS and autonomous motivation, direct effects between autonomous motivation and career and educational outcomes, and indirect effects between BPNS and career and education outcomes. Research regarding the role of SDT in career indecision, vocational identity, and job search behaviors has been explored (Guay, Ratelle, Senecal, Larose, & Deschenes, 2006; Soenens & VanSteenkist, 2005); however, exploring educational and career expectations has been largely overlooked in SDT literature. Finding a relationship between autonomous motivation and career and educational expectations contributes to SDT literature, demonstrating that autonomous motivation has important implications for career development outcomes.

Intersection of SPD and SDT. In addition to providing support for the utility of SPD and SDT in predicting school achievement and career and educational expectations, this study explored the mediating effects of BPNS and autonomous motivation in explaining the relationship between SPD and career and educational outcomes. Latino

and non-Latino low-income students are at-risk for lower levels of BPNS, or basic psychological need satisfaction, in the school setting (Arbona, 2000; Hill & Torres, 2010). However, sociopolitical development among low-income students of color is associated with a greater sense of autonomy (Diemer et al., 2010) and competence (O'Connor, 1997). In addition, Diemer et al. (2009) found that positive relationships with peers from different racial and ethnic groups predicted self-definition associated with sociopolitical development. The current study findings contribute to our understanding of the mechanisms by which SPD influences the development of career and educational outcomes. Students with higher levels of sociopolitical development showed higher levels of basic psychological need satisfaction, which predicts greater autonomous motivation. In addition, sociopolitical development directly affects autonomous motivation. This may reflect the fundamental aspects of sociopolitical development that entails a sense of agency and motivation to transform structural barriers that impede career development (Diemer, 2009; Diemer et al., 2010). This motivation appears to translate to autonomous motivation in the school setting, which is associated with higher school achievement and career and educational expectations. This fits with evidence that autonomous motivation contributes to learning, academic performance and persistence, and school engagement (Deci, Koestner, & Ryan, 2001; Deci et al., 1991). In summary, the current study suggests that SPD's positive influence on career and educational expectations and school achievement is partially through the satisfaction of basic psychological needs and the development of autonomous motivation for school.

Implications for Practice

The study results provide several directions for future school, community, and

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family-based practices. Consistent with SPD and SDT, sociopolitical development and basic psychological need satisfaction play an influential role in career and educational outcomes that may be relevant to addressing the aspiration-expectation gap. Therefore, identifying and implementing practices that contribute to sociopolitical development and basic psychological need satisfaction warrants attention.

Facilitating sociopolitical development. Blustein, McWhirter, & Perry (2005) advocated for the development of critical consciousness among privileged practitioners as well as those without power as a means of addressing structural inequity. As such, training that raises awareness of sociopolitical barriers to career development is recommended for teachers, counselors, and other professionals who work with poor students of color. In addition, this study highlights the potential importance of interventions that foster sociopolitical development among students who face sociopolitical barriers. Interventions that include critical thinking activities, action strategies, enhancement of sociopolitical awareness, community participation skills, and strengthening sense of control and social responsibility have been offered as strategies for fostering sociopolitical development among young people (Morsillo & Prilleltensky, 2005; Watts et al., 1999). In addition, Watts and colleagues (1999) recommend using resources accessible to participants, such as media, as an effective means to raise awareness and critical thinking necessary for sociopolitical development.

Peer and parental sociopolitical support, specifically talking with friends and family about current events and politics, contributes to sociopolitical development (Diemer, 2012; Diemer & Li, 2011). Therefore, encouraging parents to have discussions about political and educational issues and creating the opportunity for these discussions

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to occur among peer groups may facilitate sociopolitical development among youth. Civic and political knowledge also influences sociopolitical development (Diemer & Li, 2011), indicating the importance of education that focuses on these topics. Interventions that facilitate sociopolitical development through increased support and knowledge may also contribute to basic psychological need satisfaction, further strengthening autonomous motivation and career and educational outcomes. Additional interventions aimed at supporting BPNS for Latino and low-income youth will be discussed next.

Facilitating basic psychological need satisfaction. The role of basic psychological need satisfaction in the development of autonomous motivation within the school setting has been well established (Deci et al., 1991). Deci and colleagues (1991) summarize strategies for BPNS in education including positive feedback, interpersonal involvement, and providing choice. Deci and Ryan (2000) argue that the relationship between BPNS and autonomous motivation is generalizable across cultural groups, and this study provides evidence that corroborates this claim. Providing culturally competent interventions aimed at enhancing the satisfaction of autonomy, competence, and relatedness is an important consideration in efforts to promote autonomous motivation. The current study includes an ethnically diverse group of high school students and Latino students comprised the largest ethnic group in this study. Therefore, I will focus on strategies for facilitating basic psychological need satisfaction among Latino students.

Academic support is a particularly important form of relatedness for Mexican-American youth (McWhirter, Luginbuhl, & Brown, 2013; Plunkett, Henry, Houltberg, Sands, & Abarca-Mortensen, 2008). Training teachers to effectively develop culturally inclusive learning environments and personal relationships with students may help

teachers create secure and satisfying relationships with their Mexican-American students (McWhirter et al., 2013; Plunkett et al., 2008). Latino students perceive teachers as caring when they provide instructional help during teaching, individual academic support, a personal interest in student well-being, availability, and actions that reflect kindness (Garza, 2009). Perez (2000) identifies a number of practices that contribute to caring relationships between teacher and culturally diverse students including familiarity and stability, broadening the role of the teacher to extend outside of the classroom, acknowledgement of home and cultural experiences, knowing students' needs and interests, and a warm and personal learning environment. In addition to teacher support, involving parents in the academic process will enhance the opportunity for parents to provide academic support to their children (Plunkett et al., 2008).

Supportive adult relationships also help foster supportive friendships with peers (Stanton-Salazar & Spina, 2005). Stanton-Salazar and Spina (2005) discuss the importance of self-disclosure, which requires trust and emotional intelligence, for the development of positive relationships among poor youth of color. Features of positive peer relationships among low-income Latino students include being embedded in peer networks that are influenced by cultural principles of emotional support and trustworthiness (Stanton-Salazar & Spina, 2005). These relationships seem to provide support despite sociopolitical barriers. Stanton-Salazar and Spina (2005) posit that sociopolitical barriers interfere with building trustworthy relationships. Therefore, it may follow that sociopolitical development provides the opportunity for supportive peer relationships to form. In addition, supportive peer relationships are fostered through institutional contexts. Extracurricular and after-school programs are recommended to

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help facilitate experiences of relatedness (McWhirter et al., 2013; Stanton-Salazar & Spina, 2005).

Evidence suggests that supportive relationships that contribute to satisfaction of relatedness may also contribute to satisfaction of competence. Perceived competence is enhanced when parents, peers, and teachers believe that the individual is capable (Bouchey & Harter, 2005). This demonstrates that counselors, parents, teachers, and other adults who communicate their belief in students' ability to successfully engage in academic tasks will foster competence. This is particularly important given that Latino and low-income students tend to experience lower expectations from teachers and are more likely to be placed in lower ability groups in school (Hill & Torres, 2010, Hotchkiss & Borrow, 1996). Moreover, competence among Latino and low-income students will be enhanced through opportunities to experience success, positive emotions related to school, and encouragement from others, and opportunities to observe others' success (Bandura, 1977).

In addition to practices that support sociopolitical development, relatedness, and competence, enhancing Latino and low-income students' perceptions of autonomy is an important component to the development of autonomous motivation and related positive career and educational outcomes. SDT emphasizes the use of an autonomy supportive style in education to enhance autonomous motivation (Deci et al., 1991; Deci & Ryan, 2000; Ryan & Deci, 2000). Perez (2009) recommended that teachers understand the link between curriculum and student interests in facilitating learning and rely on the supportive relationships rather than authority to encourage positive classroom behavior among culturally diverse students. Lopez (2009) identifies needing to provide family

financial support as the most common barrier to continuing education, indicating that family obligations are an important consideration for Latino students. Ceballo (2004) interviewed first-generation college students and found that students typically managed their academic careers without the help of their parents. This produces a sense of autonomy while signifying a possible lack of parental involvement (Ceballo, 2004; Lopez, 2009). Therefore, cultural values such as *familismo* and opportunities for independence in determining post secondary plans paints a complex picture of autonomy and relatedness need satisfaction for Latino students. Jang, Reeve, Ryan, and Kim (2009) argue that the concept of autonomy as a basic psychological need is not only relevant for cultural groups that value individualism but groups that value interdependence also need and benefit from autonomy support. Autonomy refers to an inner endorsement of behaviors and values and should not be understood simply as independence (Jang et al., 2009). In sum, it is recommended that teachers and parents provide environments that support students' choice in their behaviors and values. Moreover, providing relational support for students who may feel they have "too much" autonomy in terms of education and career related tasks contributes to need satisfaction.

Implications for Research

The current research study results are consistent with SPD and SDT. Together, the two theories contribute to our understanding of factors associated with educational and career development. Further research is necessary to understand the causal links between variables examined in this study. Using experimental research to assess the effectiveness of intervention programs that promote SPD and BPNS will help determine how SPD and SDT can be used to reduce the aspiration-expectation gap. In addition, intervention

studies will be useful in identifying best practices for promoting SPD and BPNS among marginalized groups. Utilizing more valid and reliable measurements of career and educational aspirations will further contribute to our understanding of the problem and potential solutions.

Diemer (2009) indicated that SPD has longitudinal effects on career expectations. Longitudinal studies that examine the relationship between SPD, BPNS, autonomous motivation, and career and educational expectations would contribute to our understanding of how these relationships change over time and implications for long term career outcomes. This research study focused on Latino students; future research should determine if the structural model is generalizable to other cultural groups including other ethnic minority groups, LGBTQ youth, and students with disabilities. Research should also explore the role of SPD for more privileged groups to see if awareness of and motivation to transform sociopolitical barriers is protective across groups.

Finally, utilizing diverse sources of data including parent and teacher reports, school records, and qualitative data will further contribute to our understanding how SPD and SDT can be used together to explain educational and career outcomes. This future direction for research will provide different perspectives to understand the aspiration-expectation gap as well as contribute to the statistical validity of results.

Limitations

A number of limitations must be considered when interpreting the results of this study. First, the data used to assess the model fit was derived from one self-report survey. This prevents the development of causal links between variables or an understanding of how relationships may change over time. In addition, the design of the

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study is vulnerable to mono-method bias, which may result in shared method variance as participants tend to respond in the same way to similar types of items (Heppner, Wampold, & Kivlighan, 2008). Shared method variance can inflate the magnitude of relationships among variables and may have contributed to the amount of variance explained by the structural model in the current study. Moreover, using self-report measures in a classroom setting may have resulted in bias resulting from impression management if participants answered in ways they believed they "should" answer rather than how they truly felt (Heppner et al., 2008). This was controlled for in the instructions and by ensuring confidentiality, but should be considered given the context of data collection. In addition, the self-report survey was somewhat lengthy and completion may have been challenging for students with attention problems or difficulty reading, potentially creating a bias in the study sample.

A second limitation to the study is evident in the measurement of variables. Career aspirations was removed from the model because of problems with the measurement of this construct. The CAS showed low reliability in this sample. It appears that participants answered negatively worded items inconsistently. In addition, the measure of educational aspirations was highly correlated with educational expectations. Thus, two of the indicators making up the construct of career and educational aspirations were remove, and the aspiration-expectation gap was not included in the model. Although research indicates that educational and career expectations and aspirations are unique constructs (Arbona, 1990; Diemer & Hsieh, 2008; Lopez, 2009), they were not distinct as measured in this study. The lack of discrepancy between educational aspiration and expectations may have been due to the age of participants.

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The average participant was less than 15 years old. Studies describing the aspiration-expectation gap tend to focus on students older than 16 years old who are in their last years of high school (e.g. Diemer & Hsieh, 2008; Lopez, 2009). It may be that the distinction between aspirations and expectations solidify later in high school as students begin planning for the future. Testing the original measurement model with older students may have garnered different results. Other measurement limitations included the use of self-reported grades and office referrals rather than using school records to measure the actual school achievement of participants. Finally, this study found good fit for the hypothesized structural model but it is unknown whether or not other structural models would provide a better explanation of relationships among variables.

Strengths

This study has several notable strengths. Although several features of the study warrant caution in interpreting findings, a number of study attributes enhance the generalizability of findings. First, the sample included over 1,100 students, providing good statistical power (Kline, 2011). Moreover, the large sample size allowed for the use of a calibration and validation sample, which in effect, provided replication of findings within this study. Likewise, the participants in this study represented an ethnically and economically diverse group of students. This study consisted largely of students of color and students from low-income families, groups that are at-risk for poor educational and career outcomes compared to their White middle class counterparts (APA Task Force on Socioeconomic Status, 2007; Close & Solberg, 2008, Lopez, 2009; Ream & Rumberger, 2008). The use of a diverse sample of participants contributes to the generalizability of the results. In particular, this final structural model is useful in understanding factors that

influence the career and educational outcomes of low income Latino and non-Latino students. As mentioned above, the students in this study were, on average, less than 15 years old and in their first two years of high school. This presents a unique contribution to the literature and suggests that the role of SPD in predicting educational and career outcomes can be found in the beginning of high school. Moreover, using younger participants provides a more heterogeneous sample as fewer students will have dropped out of high school.

This study makes a significant contribution to the literature on Sociopolitical Development Theory and Self-determination Theory through its use of theoretically driven measurement and hypotheses. This study feature gives strength to the final structural model as it theoretically derived and built with theoretically consistent measurements. This is the first study to combine Sociopolitical Development Theory and Self-determination Theory to understand adolescent educational and career development. The model accounted for a significant amount of variance (74 %) in career and educational expectations, attesting to the viability of this model in future research.

Conclusion

Low income Latino and non-Latino students face structural barriers that negatively impact their educational and career outcomes. As a result, these students experience an aspiration-expectation gap - a discrepancy between the career outcomes they aspire to attain the career outcomes they expect to attain. This study uniquely combined SPD and SDT by exploring the role of autonomous motivation on educational and career outcomes and clarifying the relationship between sociopolitical development and academic motivation. By integrating theories relevant to educational and career

development of poor youth of color, this research study sought to identify factors that affect the aspiration-expectation gap. Specifically, this study focused on factors related to career and educational expectations because Latino and low-income students tend to have relatively low expectations about their future career and educational attainment.

This study utilized a culturally diverse sample of high school students. Although scores on educational aspirations were not discrepant enough from educational expectations to measure the aspiration-expectation gap, results of the study shed light on factors that predict career expectations and school achievement. Findings suggest that the relationship between SPD and career and educational outcomes is partially mediated by autonomous motivation. Moreover, the relationship between SPD and autonomous motivation is partially mediated by basic psychological need satisfaction. The structural model tested in the study accounted for 74 percent of the variance in career and educational expectations, 34 percent of the variance in academic achievement, 40 percent of the variance in BPNS, and 50 percent of the variance in autonomous motivation. Ethnic and socioeconomic differences in the overall fit of the structural model were not found.

Conclusions of the current study support SPD and SDT and provide one explanation for the mechanisms by which SPD influences career and educational expectations. Practices that contribute to the sociopolitical development and basic psychological need satisfaction of Latino and non-Latino low-income youth may contribute to facilitating the development of autonomous motivation and enhancing career and educational expectations.

APPENDIX

SURVEY MATERIALS

Participant ID: X 1 2 3 4

Student Survey

Today's Date: ☐☐ / ☐☐ / ☐☐☐☐
month   *day*   *year*

Section A:

Instructions: The following questions ask for general information about you. Remember that the information you provide is anonymous. Please respond to the items below by either indicating your response or selecting the one category that best represents you. You may skip any question(s) that you feel uncomfortable answering.

1. **Age:** ☐☐

2. **Gender:** ○ Female ○ Male

3. **Race/Ethnicity:** (*please mark ALL that apply*)

   ☐ American Indian/Alaskan Native
   ☐ Asian or Asian-American
   ☐ Black/African-American
   ☐ Hispanic/Latino(a)/Chicano(a)
   ☐ Middle Eastern
   ☐ Pacific Islander
   ☐ White/European-American
   ☐ Other (please specify): _____

4. **Which language(s) do you speak?** (*please mark ALL that apply*)

   ☐ English
   ☐ Spanish
   ☐ Other (please specify): _____

5. **What grade are you in?** ○ 9th ○ 10th ○ 11th ○ 12th

6. **Do you have an IEP?** ○ Yes ○ No

Section B:

Why do you go to school? (Tell me how much you agree with the following reasons for why you go to school.)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Because I need at least a high school degree in order to find a high-paying job later on	O	O	O	O	O
2. Because I experience joy and satisfaction while learning new things	O	O	O	O	O
3. Because I think that a high-school education will help me better prepare for the career I have chosen	O	O	O	O	O
4. Honestly, I don't know; I really feel that I am wasting my time in school	O	O	O	O	O
5. For the joy I experience while improving in my studies	O	O	O	O	O
6. To prove to myself that I can complete my high school degree	O	O	O	O	O
7. In order to obtain a more important job later on	O	O	O	O	O
8. For the joy I experience when I discover new things never seen before	O	O	O	O	O
9. Because eventually it will allow me to enter the job market in a field that I like	O	O	O	O	O
10. I once had good reasons for going to school; however, now I wonder whether I should continue	O	O	O	O	O
11. For the joy that I experience while I am improving in one of my personal achievements	O	O	O	O	O
12. Because of the fact that when I succeed in school I feel important	O	O	O	O	O
13. Because I want to have the "good life" later on	O	O	O	O	O
14. For the pleasure that I experience in improving my knowledge about subjects which interest me	O	O	O	O	O
15. Because this will help me make a better choice regarding my career	O	O	O	O	O
16. I can't see why I go to school and honestly I couldn't care less	O	O	O	O	O
17. For the satisfaction that I feel when I am in the process of accomplishing difficult academic activities	O	O	O	O	O
18. To show myself that I am an intelligent person	O	O	O	O	O

Tell me how much you agree with the following reasons for why you go to school.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
19. In order to have a better salary later on	O	O	O	O	O
20. Because my studies allow me to continue to learn about many things that interest me	O	O	O	O	O
21. Because I believe that my high school education will improve my ability as a worker	O	O	O	O	O
22. I don't know; I can't understand what I am doing in school	O	O	O	O	O
23. Because high school allows me to experience a personal satisfaction in my search for excellence in my studies	O	O	O	O	O
24. Because I want to show myself that I can succeed in my studies	O	O	O	O	O

Section C:

Please indicate how much you agree with each statement below.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. My career planning will lead to a satisfying career for me	O	O	O	O	O
2. I will be successful in my chosen career/occupation	O	O	O	O	O
3. I will get the job I want in my chosen career	O	O	O	O	O
4. My talents and skills will be used in my career/occupation	O	O	O	O	O
5. I have control over my career decisions	O	O	O	O	O
6. I will achieve my career/occupational goals	O	O	O	O	O
7. I will have a career/occupation that is respected in our society	O	O	O	O	O

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Section D:

Please indicate how much you agree with each statement below.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. My teachers provide me with choices and options	O	O	O	O	O
2. My teachers show their confidence in my ability to become what I want to become	O	O	O	O	O
3. My teachers try to understand how I see things before they suggest to me how they would handle a particular situation	O	O	O	O	O
4. When I offer suggestions to my teachers, they listen carefully and consider my suggestions	O	O	O	O	O
5. My teachers show me respect	O	O	O	O	O
6. My teachers encourage me to ask questions	O	O	O	O	O
7. I am able to share my feelings with my teachers about what I want to become	O	O	O	O	O
8. I feel understood by my teachers	O	O	O	O	O

Section E:

Please indicate how much you agree with each statement below.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Racism/Classism and discrimination affect people today	O	O	O	O	O
2. Racism and discrimination affect my own life today.	O	O	O	O	O
3. It is important to work to change social and economic unfairness	O	O	O	O	O
4. It is important to help people in my community	O	O	O	O	O
5. It is important to work to end racism/classism and discrimination	O	O	O	O	O
6. I am motivated to try to help my community	O	O	O	O	O
7. I am motivated to try and end racism/classism and discrimination	O	O	O	O	O
8. I discuss current economic and political events with my parents or other family members	O	O	O	O	O
9. I am currently involved in community or school groups that promote equality and fairness	O	O	O	O	O
10. I am currently involved in community or school groups that promote an end to racism/classism and discrimination	O	O	O	O	O

Section F:

Please Indicate <u>how positive or negative you feel</u> towards each of the following object or statements

	Very Negative	Somewhat Negative	Neutral	Somewhat Positive	Very Positive
1. Some groups of people are simply not the equals of others	O	O	O	O	O
2. Some people are just more worthy than others	O	O	O	O	O
3. This country would be better off if we cared less about how equal all people were	O	O	O	O	O
4. Some people are just more deserving than others	O	O	O	O	O
5. It is not a problem if some people have more of a chance in life than others	O	O	O	O	O
6. Some people are just inferior to others	O	O	O	O	O
7. To get ahead in life, it is sometimes necessary to step on others	O	O	O	O	O
8. Increased economic equality	O	O	O	O	O
9. Increased social equality	O	O	O	O	O
10. If people were treated more equally we would have fewer problems in this country	O	O	O	O	O
11. In an ideal world, all nations would be equal	O	O	O	O	O
12. All humans should be treated equally	O	O	O	O	O
13. It is important that we treat other countries as equals	O	O	O	O	O

Section G:

Please rate <u>how certain you are</u> that you can do each of the things described below

	Cannot do at all 1	2	Can do somewhat 3	4	Highly certain can do 5
1. Finish my homework assignments by deadlines	O	O	O	O	O
2. Get myself to study when there are other interesting things to do	O	O	O	O	O
3. Always concentrate on school subjects during class	O	O	O	O	O
4. Take good notes during class instruction	O	O	O	O	O
5. Use the library to get information for class assignments	O	O	O	O	O
6. Plan my schoolwork for the day	O	O	O	O	O
7. Organize my schoolwork	O	O	O	O	O
8. Remember well information presented in class and textbooks	O	O	O	O	O
9. Arrange a place to study without distractions	O	O	O	O	O
10. Get myself to do school work	O	O	O	O	O
11. Learn math	O	O	O	O	O
12. Learn science	O	O	O	O	O
13. Learn reading, writing, and language skills	O	O	O	O	O
14. Learn to use computers	O	O	O	O	O
15. Learn social studies	O	O	O	O	O
16. Learn a foreign language	O	O	O	O	O

Section H:

Please read the following statements carefully, thinking about how they relate to your life and then indicate how true it is for you.

	Not true at all	Somewhat untrue	Neither true or untrue	Somewhat true	Very True
1. I feel like I am free to decide for myself how to live my life	O	O	O	O	O
2. I really like the people I interact with	O	O	O	O	O
3. Often, I do not feel very competent (skilled)	O	O	O	O	O
4. I feel pressured in my life	O	O	O	O	O
5. People I know tell me I am good at what I do	O	O	O	O	O
6. I get along with people I come into contact with	O	O	O	O	O
7. I pretty much keep to myself and don't have a lot of social contacts	O	O	O	O	O
8. I generally feel free to express my ideas and opinions	O	O	O	O	O
9. I consider the people I regularly interact with to be my friends	O	O	O	O	O
10. I have been able to learn interesting new skills recently	O	O	O	O	O
11. In my daily life, I frequenlty have to do what I am told	O	O	O	O	O
12. People in my life care about me	O	O	O	O	O
13. Most days I feel a sense of accomplishment from what I do	O	O	O	O	O
14. People I interact with on a daily basis tend to take my feelings into consideration	O	O	O	O	O
15. In my life I do not get much of a chance to show how capable I am	O	O	O	O	O
16. There are not many people that I am close to	O	O	O	O	O
17. I feel like I can pretty much be myself in my daily situations	O	O	O	O	O
18. The people I interact with regularly do not seem to like me much	O	O	O	O	O
19. I often do not feel very capable	O	O	O	O	O
20. There is not much opportunity for me to decide for myself how to do things in my daily life	O	O	O	O	O
21. People are generally pretty friendly towards me	O	O	O	O	O
22. My classmates often bother me	O	O	O	O	O
23. I like pretty much all of the other kids in my grade	O	O	O	O	O
24. I like working with my classmates	O	O	O	O	O

Please read the following statements carefully, thinking about how they relate to your life and then indicate how true it is for you.

	Not true at all	Somewhat untrue	Neither true or untrue	Somewhat true	Very True
25. I get along well with the other students in my classes	O	O	O	O	O
26. I am liked by my classmates	O	O	O	O	O
27. I rarely fight or argue with the other kids at school	O	O	O	O	O
28. I care what my teachers think of me	O	O	O	O	O
29. I do not get along with some of my teachers	O	O	O	O	O
30. I want to be respected by my teachers	O	O	O	O	O
31. I try to get along with my teachers	O	O	O	O	O
32. I always try hard to earn my teachers' trust	O	O	O	O	O
33. I usually like my teachers	O	O	O	O	O

Section I:

Please read the following statements and indicate how true it is for you.

	Not true at all	Slightly true	Somewhat true	Quite a bit true	Very true
1. My teachers care about how much I learn	O	O	O	O	O
2. My teachers like to see my work	O	O	O	O	O
3. My teachers like to help me learn	O	O	O	O	O
4. My teachers want me to do my best in schoolwork	O	O	O	O	O
5. My teachers really care about me	O	O	O	O	O
6. My teachers think it is important to be my friend	O	O	O	O	O
7. My teachers like me as much as they like other students	O	O	O	O	O
8. My teachers care about my feelings	O	O	O	O	O
9. In this school other students think it is important to be my friend	O	O	O	O	O
10. In this school other students like me the way I am	O	O	O	O	O
11. In this school other students care about my feelings	O	O	O	O	O
12. In this school other students like me as much as they like others	O	O	O	O	O
13. In this school other students really care about me	O	O	O	O	O

Section J:

Please read the following statements and indicate how true it is for you.

	Not true at all	Slightly true	Somewhat true	Quite a bit true	Very true
1. I hope to become a leader in my career field	○	○	○	○	○
2. When I am established in my career I would like to manage other employees	○	○	○	○	○
3. I do not plan on devoting energy to getting promoted in the organization or business I am working in	○	○	○	○	○
4. When I am established in my career, I would like to train others	○	○	○	○	○
5. I hope to move up though any organization or business I work in	○	○	○	○	○
6. Once I finish the basic level of education needed for a particular job I see no need to continue in school	○	○	○	○	○
7. I think I would like to pursue graduate training in my occupational area of interest	○	○	○	○	○
8. Attaining leadership status in my career is not that important to me	○	○	○	○	○

Section K:

1. How much money does your family have?

   ○ Not enough to get by
   ○ Just enough to get by
   ○ We only have to worry about money for fun and extras
   ○ We never have to worry about money

2. Do you receive Free or Reduced lunch at school?

   ○ Yes, free lunch
   ○ Yes, reduced lunch
   ○ No

3. If you were completely free to choose, what level of education **would you like to achieve?**

      ○ Less than high school

      ○ High School

      ○ Some college

      ○ 2 year or community college (i.e. nursing degree or associates degree)

      ○ 4 year college (a bachelors degree)

      ○ Master's degree or teaching credential

      ○ Law degree, Ph.D, or medical doctor's degree (M.D.)

4. When you think about your life, what level of education **do you think you will have** when you are 30?

      ○ Less than high school

      ○ High School

      ○ Some college

      ○ 2 year or community college (i.e. nursing degree or associates degree)

      ○ 4 year college (a bachelors degree)

      ○ Master's degree or teaching credential

      ○ Law degree, Ph.D, or medical doctor's degree (M.D.)

5. Think about the career you most want to have when you are 30 and choose the answer that is most true for you?

      ○ I expect to be able to have this career in the future

      ○ I am not sure whether or not I will be able to have this career in the futre

      ○ I do not expect I will be able to have this career in the future

For the following two questions the word **"caregiver"** means an adult that lives in your home (for example, your father, mother, stepparent, or foster parent).

6. What is your caregiver's highest level of education?

   ○ Less than high school
   ○ High School
   ○ Some college
   ○ 2 year or community college (i.e. nursing degree or associates degree)
   ○ 4 year college (a bachelors degree)
   ○ Master's degree or teaching credential
   ○ Law degree, Ph.D, or medical doctor's degree (M.D.)
   ○ I don't know

7. What is your other caregiver's highest level of educaiton (if applicable)?

   ○ Less than high school
   ○ High School
   ○ Some college
   ○ 2 year or community college (i.e. nursing degree or associates degree)
   ○ 4 year college (a bachelors degree)
   ○ Master's degree or teaching credential
   ○ Law degree, Ph.D, or medical doctor's degree (M.D.)
   ○ I don't know
   ○ Not applicable, I only have one caregiver.

8. What types of grades do you usually get in school?

   ○ Mostly As   ○ Mostly Bs   ○ Mostly Cs   ○ Mostly Ds   ○ Mostly Fs

9. How many office referrals did you receive last school year?

   ○ 0-1   ○ 2-5   ○ 6 or more

Student Survey

Fecha de hoy: ☐☐ / ☐☐ / ☐☐☐☐
             mes   *dia*   *año*

Section A:

Direcciones: Las siguientes preguntas piden por información en general sobre ti. Acuérdate que cualquier información que compartas será anónima. Por favor responde a las preguntas aquí debajo indicando tu respuesta o seleccionando la categoria que mejor te representa. Puedes saltar cualquier pregunta que no quieras contestar.

1. Edad: ☐☐

2. Sexo: ○ Mujer ○ Hombre

3. Cual es su etnicidad? *(Marque todas las que apliquen)*

   ☐ Nativo de América/ Indio-Americano/ Nativo de Alaska
   ☐ Asiático/Asiático-Americano
   ☐ Afro-Americano/ Negro
   ☐ Hispano(a)/Latino(a)/Chicano(a)
   ☐ Middle Eastern
   ☐ Pacific Islander
   ☐ De las Islas del Pacífico/ Hawaiano
   ☐ Otro (especifica): _____

4. Cuales son los lenguajes que usted habla? *(Marque todas las que apliquen)*

   ☐ Inglés
   ☐ Español
   ☐ Otro(s) (especifica): _____

5. Año Escolar: ○ 9th ○ 10th ○ 11th ○ 12th

6. Usted tiene un IEP? ○ Yes ○ No

Section B:

Porque vas a la escuela? (Dime que tanto estas de acuerdo con las siguientes razones por las cuales vas a la escuela.)

	Totalmente en Desacuerdo	Desacuerdo	Neutral	De Acuerdo	Totalmente de Acuerdo
1. Yo necesito por lo menos un diploma de escuela secundaria para poder conseguir un trabajo de alto pago en el futuro	O	O	O	O	O
2. Porque yo siente felicidad y satisfacción al aprender cosas nuevas	O	O	O	O	O
3. Porque yo pienso que una educación de escuela secundaria me preparara mejor para la carera que yo eh escogido	O	O	O	O	O
4. Honestamente, yo no se; yo de verdad siento que estoy perdiendo mi tiempo en la escuela	O	O	O	O	O
5. Por la felicidad que yo siento al mejorar mis estudios	O	O	O	O	O
6. Para demostrarme que yo puedo completar mi diploma de escuela secundaria	O	O	O	O	O
7. Para poder obtener un trabajo mas importante en el futuro	O	O	O	O	O
8. Para disfrutar la experiencia de descubrir nuevas cosas que nunca eh visto	O	O	O	O	O
9. Porque eventualmente me va a dejar entrar al mercado de trabajo en una área de trabajo que a mi me gusta	O	O	O	O	O
10. Una vez tuve buena razón par air a la escuela, pero ahora pienso si debo continuar	O	O	O	O	O
11. Por la felicidad que yo siento mientras estoy mejorando en uno de mis logros personales	O	O	O	O	O
12. Por el hecho de que cuando tengo éxito en la escuela yo me siento importante	O	O	O	O	O
13. Porque quiero tener una 'vida buena' en el futuro	O	O	O	O	O
14. Por el placer que yo siento al mejorar mi conocimiento de los temas académicos que me interesan	O	O	O	O	O
15. Porque esto me ayudara hacer una mejor decisión sobre mi carrera	O	O	O	O	O
16. No se porque yo voy a la escuela y honestamente no me importa a mi	O	O	O	O	O
17. Por la satisfacción que yo siento cuando estoy mientras cumpliendo una actividad académica que es difícil	O	O	O	O	O
18. Para demonstrar me a mi mismo que soy una persona inteligente	O	O	O	O	O

Porque vas a la escuela? (Dime que tanto estas de acuerdo con las siguientes razones por las cuales vas a la escuela.)

	Totalmente en Desacuerdo	Desacuerdo	Neutral	De Acuerdo	Totalmente de Acuerdo
19. Para poder recibir mejor salario en el futuro	O	O	O	O	O
20. Porque mis estudios me ayudan a seguir aprenderiendo muchas cosas que me interesan	O	O	O	O	O
21. Porque yo creo que mi educación de escuela secundaria va a mejorar mi habilidad como trabajador	O	O	O	O	O
22. Yo no se; Yo no puedo entender que estoy hacienda en la escuela	O	O	O	O	O
23. Porque mi escuela secundaria me deja tener una experiencia de satisfacción personal en mi búsqueda de excelencia en mis estudios	O	O	O	O	O
24. Porque yo me quiero mostrar que puedo tener éxito en mis estudios	O	O	O	O	O

Section C:

Por favor indica cuanto estas de acuerdo con cada frase:

	Totalmente en Desacuerdo	Desacuerdo	Neutral	De Acuerdo	Totalmente de Acuerdo
1. Planificar mi carrera resultará en satisfacción en mi carrera	O	O	O	O	O
2. Tendré éxito en la carrera/ocupación que yo elijo	O	O	O	O	O
3. Conseguiré el trabajo que quiero en la ocupación que elijo	O	O	O	O	O
4. Mis talentos y habilidades serán utilizados en mi carrera/ocupación	O	O	O	O	O
5. Controlo yo mis decisiones sobre mi carrera	O	O	O	O	O
6. Lograré mis metas ocupacionales	O	O	O	O	O
7. Tendré una ocupación que me da respeto en esta sociedad	O	O	O	O	O

Section D:

Por favor indica <u>cuanto estas de acuerdo</u> con cada frase:

	Totalmente en Desacuerdo	Desacuerdo	Neutral	De Acuerdo	Totalmente de Acuerdo
1. Mis maestros me provén con opciones y selecciones	O	O	O	O	O
2. Mis maestros demuestran confianza en mi habilidad de ser lo que quiero ser	O	O	O	O	O
3. Mis maestros tratan de entender como yo veo las cosas antes de sugerir como ellos manejarían una situación particular	O	O	O	O	O
4. Cuando yo ofrezco sugerencias a mis maestros, ellos escuchan cuidadosamente y consideran mis sugerencias	O	O	O	O	O
5. Mis maestro me demuestran respeto	O	O	O	O	O
6. Mis maestros me animan a hacer preguntas	O	O	O	O	O
7. Puedo compartir mis sentimientos sobre lo que quiero hacerme en el futuro con mis maestros	O	O	O	O	O
8. Siento que mis maestros me entienden	O	O	O	O	O

Section E:

Por favor indica <u>cuanto estas de acuerdo</u> con cada frase:

	Totalmente en Desacuerdo	Desacuerdo	Neutral	De Acuerdo	Totalmente de Acuerdo
1. El racismo/clasismo y la discriminación afecta a la gente de hoy.	O	O	O	O	O
2. El racismo/clasismo y la discriminación afectan a mi propia vida.	O	O	O	O	O
3. Es importante luchar para cambiar las desigualdades sociales y económicas.	O	O	O	O	O
4. Es importante ayudar a la gente en mi comunidad.	O	O	O	O	O
5. Es importante eliminar el racismo/clasismo y la discriminación.	O	O	O	O	O
6. Yo estoy motivado intentar de contribuir a mi comunidad	O	O	O	O	O
7. Yo estoy motivado intentar eliminar el racismo/clasismo y la discriminación.	O	O	O	O	O
8. Yo hablo acerca de eventos económicos o políticos con mis padres u otra familia.	O	O	O	O	O
9. En este momento estoy involucrado en grupos de la escuela o comunidad que promueven la igualdad y justicia.	O	O	O	O	O
10. En este momento estoy involucrado en grupos de la escuela o comunidad que luchan contra el racismo/clasismo y la discriminación.	O	O	O	O	O

Section F:

Por favor indica que tan <u>positivo o negativo te sientes</u> sobre cada objeto o frases

	Muy Negativo	Un Poco Negativo	Neutral	Un Poco Positivo	Muy Positivo
1. Algunos grupos de personas simplemente no son iguales a los otros	O	O	O	O	O
2. Algunas personas simplemente son mas dignos de merito que otros	O	O	O	O	O
3. Este país estaría en una mejor posición si nos importara menos de que tan igual son todas las personas	O	O	O	O	O
4. Algunas personas son simplemente mas merecedores que otros	O	O	O	O	O
5. No es un problema si algunas personas tienen mas oportunidades en la vida que otras	O	O	O	O	O
6. Algunas personas son simplemente mas inferiores a otros	O	O	O	O	O
7. Para salir adelante en la vida, a veces es necesario a pasar encima de otros	O	O	O	O	O
8. Aumentar la igualdad económica	O	O	O	O	O
9. Aumentar la igualdad social	O	O	O	O	O
10. Si las personas fueran tratados con mas igualdad, tendríamos menos problemas en este país	O	O	O	O	O
11. En un mundo ideal, todas las naciones serian iguales	O	O	O	O	O
12. Todos los humanos deberian ser tratados con igualdad	O	O	O	O	O
13. Es importante que tratemos otros paises como iguales	O	O	O	O	O

Section G:

Por favor indique <u>que tan seguro(a) estas</u> que puedas hacer cada cosa descrita en lo siguiente:

	No lo puedo hacer 1	2	Lo puedo hacer un poco 3	4	Estoy muy seguro que lo puedo hacer 5
1. Completar mis asignaciones de tarea para la fecha de plazo	O	O	O	O	O
2. Ponerme a estudiar cuando hay otras cosas mas interesantes que hacer	O	O	O	O	O
3. Yo siempre concentro sobre sujetos académicos durante clase	O	O	O	O	O
4. Tomar buenas notas durante la instrucciones de clase	O	O	O	O	O
5. Usar la biblioteca para conseguir información para mis asignaciones de clase	O	O	O	O	O
6. Planificar mis tareas de clase para el día	O	O	O	O	O
7. Organizar mis tareas de clase	O	O	O	O	O
8. Recordarme bien de la información presentada en la clase y en los libros escolares	O	O	O	O	O
9. Disponer un sitio para estudiar sin distracciones	O	O	O	O	O
10. Hacer que yo haga la tarea escolar	O	O	O	O	O
11. Aprender matemáticas	O	O	O	O	O
12. Aprender ciencias	O	O	O	O	O
13. Aprender lectura, escritura, y habilidades de lenguaje	O	O	O	O	O
14. Aprender a usar computadoras	O	O	O	O	O
15. Aprender estudios sociales	O	O	O	O	O
16. Aprender una lengua extranjera	O	O	O	O	O

Section H:

Por favor lee las oraciones que siguen con mucho cuidado, pensando en que tanto tienen que ver con tu vida, e indica <u>que tan verdaderas son para ti:</u>

	No es verdadero	Es un poco falso	Ni verdadero ni falso	Un poco verdadero	Muy verdadero
1. Siento que soy libre de decidir para mi mismo como vivir mi vida	O	O	O	O	O
2. A mi me gusta mucho las personas con quien yo interactuó	O	O	O	O	O
3. Muy frecuenté, no me siento muy competente	O	O	O	O	O
4. Me siento presionado en mi vida	O	O	O	O	O
5. Personas que yo conozco me dicen que tan bueno(a) soy en lo que hago	O	O	O	O	O
6. Me llevo bien con las personas con quien yo interactuó	O	O	O	O	O
7. Yo soy mas solitario y no tengo muchos contactos sociales	O	O	O	O	O
8. Generalmente me siento libre a expresar mis ideas y opiniones	O	O	O	O	O
9. Yo considero que las personas con quien yo regularmente interactuó son mis amistades	O	O	O	O	O
10. Yo eh podido aprender nuevas habilidades interesantes recientemente	O	O	O	O	O
11. En mi vida diaria, yo frecuentemente tengo que hacer lo que me dicen	O	O	O	O	O
12. Las personas en mi vida me quieren	O	O	O	O	O
13. La mayoría de los días siento un sentido de logro por lo que hago	O	O	O	O	O
14. Las personas con quien interactuó diariamente toman mis sentimientos en consideración	O	O	O	O	O
15. En mi vida no tengo muchas oportunidades para demostrar que tan capaz soy	O	O	O	O	O
16. No hay muchas personas con quien soy cercano(a)	O	O	O	O	O
17. Siento que puedo ser quien soy en situaciones diarias	O	O	O	O	O
18. No me parece que les caigo bien a las personas con quien me junto regularmente	O	O	O	O	O
19. Yo frecuentemente no me siento capaz	O	O	O	O	O
20. No hay mucha oportunidad para yo decidir por mi mismo(a) como hacer cosas en mi vida diaria	O	O	O	O	O
21. Generalmente la gente es agradable hacia mi	O	O	O	O	O
22. Mis compañeros me molestan	O	O	O	O	O
23. Me agredan todos mis compañeros de grado	O	O	O	O	O
24. Me gusta trabajar con mis compañeros de grado	O	O	O	O	O

Por favor lea las siguientes frases y indique que <u>tan verdadero es para usted</u>:

	No es verdadero	Es un poco falso	Ni verdadero ni falso	Un poco verdadero	Muy verdadero
25. Me llevo bien con los demás estudiantes de mis clases	O	O	O	O	O
26. Les agrado a mis compañeros de clase	O	O	O	O	O
27. Pocas veces peleo o discuto con los otros chicos en la escuela	O	O	O	O	O
28. Me importa lo que mis maestros piensen de mi	O	O	O	O	O
29. Me desagradan varios maestros en mi escuela	O	O	O	O	O
30. Yo quiero se respetado por mis maestros	O	O	O	O	O
31. Trato de llevarme bien con mis maestros	O	O	O	O	O
32. Siempre me esfuerzo por ganarme la confianza de mis maestros	O	O	O	O	O
33. Casi siempre me gustan mis maestros	O	O	O	O	O

Section I:

Por favor lea las siguientes frases y indique que <u>tan verdadero es para usted</u>:

	No es verdadero	Ligera-mente verdadero	Algo verdadero	Bastante verdadero	Muy verdadero
1. Mis maestros se preocupan por cuanto estoy aprendiendo	O	O	O	O	O
2. Mis maestros les gustan ver mi trabajo	O	O	O	O	O
3. Mis maestros les gustan ayudarme a aprender	O	O	O	O	O
4. Mis maestros quieren que yo haga mi mejor trabajo en mis tareas escolares	O	O	O	O	O
5. Mis maestros de verdad se preocupan por mi	O	O	O	O	O
6. Mis maestros piensan que es importante ser mis amigos	O	O	O	O	O
7. Mis profesores/maestros no tienen preferencia entre mis compañeros y yo	O	O	O	O	O
8. Mis maestros se preocupan de mis sentimientos	O	O	O	O	O
9. En esta escuela otros estudiantes piensan que es importante ser mi amigo	O	O	O	O	O
10. Les caigo bien somo soy yo a otros estudiantes en esta escuela	O	O	O	O	O
11. En esta escuela otros estudiantes se preocupan de mis sentimientos	O	O	O	O	O
12. Los estudiantes en escuela no tienen preferencia entrem mis companeros y yo	O	O	O	O	O
13. En esta escuela otros estudiantes de verdad se preocupan de mi	O	O	O	O	O

Section J:

Por favor lea las siguientes frases y indique que <u>tan verdadero es para usted</u>:

	No es verdadero	Ligera- mente verdadero	Algo verdadero	Bastante verdadero	Muy verdadero
1. Espero ser un lider en mi campo de carrera	O	O	O	O	O
2. Cuando esté establecido en mi carrera a mi me gustaría digirir a otros empleados	O	O	O	O	O
3. Yo no planifico dedicar energía en ser promocionado en una organización o un negocio en que estoy trabajando	O	O	O	O	O
4. Cuando esté establecido(a) en mi carrera, me gustaría entrenar a otros	O	O	O	O	O
5. Yo espero subir de posición por cualquier organización o negocio en que yo trabaje	O	O	O	O	O
6. Cuando termine el mas básico nivel de educación que yo necesité para un trabajo en particular, no veo la necesidad de continuar la escuela	O	O	O	O	O
7. Yo pienso que me gustaría seguir entrenamiento de maestría en mi área de interés ocupacional	O	O	O	O	O
8. Recibiendo un estatus de líder en mi carrera no es muy importante para mi	O	O	O	O	O

Section K:

1. Cuanto dinero tiene tu familia?

    O No es suficiente para vivir

    O Casi lo suficiente para vivir

    O Nada mas tenemos que preocupar de plata para actividades divertidas y cosas extras

    O Nunca nos tenemos que preocupar por la plata

2. Tu recibes almuerzo Gratis o Reducido en la escuela?

    O Sí, almuerzo gratis

    O Si, almuerzo reducido

    O No

3. Si estuvieras completamente libre para escoger, que nivel de educación preferirías lograr?

    O Menos de escuela secundaria

    O Escuela secundaria

    O Alguna universidad

    O Dos años o Universidad comunitaria (i.e. diploma de enfermera o diploma de asociados)

    O Universidad de 4 años (un diploma de bachillerato)

    O Master's degree or teaching credential

    O Diploma de ley, Ph.D., o diploma de doctor medico (M.D.)

4. Cuando piensas de tu vida, que nivel de educación piensas que vas a tener cuando tengas 30 años?

    O Menos de escuela secundaria

    O Escuela secundaria

    O Alguna universidad

    O Dos años o Universidad comunitaria (i.e. diploma de enfermera o diploma de asociados)

    O Universidad de 4 años (un diploma de bachillerato)

    O Master's degree or teaching credential

    O Diploma de ley, Ph.D., o diploma de doctor medico (M.D.)

5. Piensa en la carrera que mas quieres tener cuando tengas 30 y escoge la respuesta que es mas verdadero para ti?

    O Yo espero poder tener esta carrera en el futuro

    O Yo no estoy seguro si voy a poder o no poder tener esta carrera en el futuro

    O Yo no espero poder tener esta carrera en el futuro

Por las siguiente dos preguntas la palabra 'guardián' se significa un adulto que vive en tu casa (por ejemplo, tu padre, madre, padrastro/madrastra, o padre Foster)

6. Cual es el nivel mas alto de educación de tu guardián?

   O Menos de escuela secundaria

   O Escuela secundaria

   O Alguna universidad

   O Dos años o Universidad comunitaria (i.e. diploma de enfermera o diploma de asociados)

   O Universidad de 4 años (un diploma de bachelors)

   O Diploma de maestria o credencial de enseñar

   O Diploma de ley, Ph.D., o diploma de doctor medico (M.D.)

   O No se

7. Cual es el nivel mas alto de educación de tu otro guardián (si acaso es aplicable)?

   O Menos de escuela secundaria

   O Escuela secundaria

   O Alguna universidad

   O Dos años o Universidad comunitaria (i.e. diploma de enfermera o diploma de asociados)

   O Universidad de 4 años (un diploma de bachelors)

   O Diploma de maestria o credencial de enseñar

   O Diploma de ley, Ph.D., o diploma de doctor medico (M.D.)

   O No se

8. Que tipo de grados tipicamente recibes en la escuela?

   O Mayormente As   O Mayormente Bs   O Mayormente Cs   O Mayormente Ds   O Mayormente Fs

9. Cuantos referidos de oficina has recibido este ultimo año escolar?

   O 0-1   O 2-5   O 6 o más

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