Proposed Intervention to Improve Recently Immigrated Hispanic Adolescents' Academic Performance and Psychological Well-Being

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Proposed Intervention to Improve Recently Immigrated Hispanic Adolescents’ Academic Performance and Psychological Well-Being

Senior Project submitted to
The Division of Science, Mathematics and Computing of Bard College
by
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Abstract

Research in education and demographics reveals an educational achievement gap between recent Hispanic adolescent immigrants and other ethnic groups in the United States (U.S.) (Krogstad, 2016). Although many intervention programs work to improve school performance through academic means (“City Year: Our Approach”, 2016; “Knowledge is Power Program: About Us”, 2016) none try to do so by taking a psychological approach tailored to the experience of recently immigrated (within the past three years) Hispanic adolescents. Given the prevalence of depressive symptoms, low self-esteem, and chronic stress among this population, and the ties between poor mental health and poor academic results (Hodas, 2016; Mason, Zaharakis, & Sabo, 2016), a program that improves the mental and emotional health of students would likely improve academic performance more so than a strictly academic approach.

This study proposes a school-based intervention attempting to lessen the achievement gap by working to improve the academic performance of the given population in the US. The study includes three conditions: psychological, academic, and control. Academic performance will be measured through GPA and class engagement. Psychological factors, such as self-esteem, depression, and acculturation, will be measured before and after the intervention to measure any changes in scores. The study predicts that the psychological condition will see the most significant academic and psychological improvement, the academic condition will see improvement in academic performance and psychological well-being, though it will be insignificant, and the control condition will not have any significant results.

Keywords: adolescent, Hispanic, academic performance, intervention, psychological well-being
Proposed Intervention to Improve Recently Immigrated Hispanic Adolescents’ Academic Performance and Psychological Well-Being

The Hispanic population is one of the largest and fastest growing ethnic groups in the United States (U.S.). The term “Hispanic” includes individuals from, or who have ancestry from Spanish speaking countries, particularly from Latin America (Schwartz et al., 2015). The population growth of this group is particularly evident in the U.S. in grades K-12, in which Hispanic students went from comprising 19% of the general student population in 2003 to comprising 25% of this population in 2013 (“Racial/Ethnic Enrollment in Public Schools”, 2016). Despite this prevalence, the Hispanic student population is consistently one of the lowest academically achieving ethnic groups (Krogstad, 2016). One factor contributing to this achievement gap is the particularly low academic achievement of Hispanic immigrants. Hispanic immigrant students have one of the highest high school drop out rates of all other immigrant groups in the U.S., at 44.2%. Such a rate is disproportionate to the 12% average high school drop out rate for Hispanic students (nonimmigrant) in the U.S. (Krogstad, 2016). The causes for this high rate need to be addressed to mitigate the achievement gap between the Hispanic population and other ethnic populations in the US. Addressing this gap would subsequently improve the educational achievements of the general Hispanic population in the U.S.

Improving the academic performance of Hispanic adolescent immigrants is important for a myriad of reasons. One such reason is because higher GPA is also correlated with higher rates of college enrollment and completion, which then correlate with higher income levels (Leonhardt, 2014). Increasing the average income level of the Hispanic population would further help to close the educational achievement gap, such that individuals could attend college and
qualify for higher paying jobs. Through this process, more opportunities would become available for a population that is so often battling low income and perpetually struggling with the educational achievement gap.

A possible solution to the educational disparity between the Hispanic population and other ethnicities is to design an intervention program tailored to the needs of Hispanic adolescents. Such a program could cater specifically to those who recently (within the past three years) immigrated to the US, since recent/first generation immigrants experience the greatest achievement and income gaps (“Immigrants in the United States”, 2014). A study tailored to recently immigrated Hispanic adolescents could mirror many of the techniques used in past programs, such as addressing trauma and improving academic performance. Implementing these various techniques could lessen the achievement gap between Hispanic immigrants and other immigrant groups in the U.S.

Despite the consequences of this achievement gap, few interventions are in place to directly address it. Several academic intervention programs help students in general to improve academically, such as Americorps City Year and Knowledge is Power Program. However, neither of these programs caters to Hispanic adolescent immigrants specifically. Moreover, they take a completely academic approach and do not address psychological well-being. For instance, City Year offers small tutoring groups to provide homework help to students in under-performing schools, but does not provide psychological aid to help students with mental and emotional health issues. As Wilson and Buttrick (2016) write, “providing the first student with more services (e.g. tutoring)…might help some, but will not address the underlying issue of how she interprets her own abilities” (p. 393) as well as other issues occurring outside the classroom.
The psychologically taxing situation of adolescent Hispanic immigrants who recently immigrated to the U.S., and the lack of programs created for and available to this population, highlights the need for such a program to exist. Because of the ties that psychological wellbeing has to academic success (Hodas, 2016; Schwartz et al., 2015; Wilson & Buttrick 2016), a program with a psychological approach would ideally offer psychological help to improve academic performance among this population, and hopefully decrease their achievement gap, and indirectly increase their college completion rate and average income. In an effort to achieve this goal, this paper will propose an intervention for Hispanic immigrants in high schools who recently immigrated to the U.S. This invention will aim to address both psychological and academic issues.

The remainder of this paper first examines the general experience of immigrants in the U.S. It then surveys the academic and psychological strains of the overall Hispanic population in the U.S. Following that, it will delve into the obstacles that adolescents in the U.S. face; specifically the experience of Hispanic and immigrant adolescents. This will then lead into the proposal to address the plight of such groups, and the method constructed to most effectively implement such an intervention.

**Immigrants in the United States**

Immigrants face an array of obstacles unique to their experience of leaving their country and living in another. Family separation, for instance, is one such issue that overwhelmingly affects immigrants. Once in the U.S., these individuals must grapple with preserving values and traditions from their previous culture while acclimating to U.S. culture. These obstacles take a toll on immigrants’ mental and emotional well-being, and lead to higher rates of depression and high school drop out rate (Schwartz et al, 2015; Ying & Han, 2007).
Since it is rare that a whole family immigrates together, family separation is a common stressor for immigrants (Zong, & Batalova, 2016). A study that surveyed 189 recently immigrated adolescents found that family separation was one of the most taxing stressors and was associated with lower GPA (Patel et al., 2006). In addition, children separated from their families while migrating had a greater high school drop out rate than those who were not separated from families during migration (Gindling & Poggio, 2012). This rate among immigrants was the highest for Latin American immigrants (Gindling & Poggio, 2012).

Upon arrival to the U.S., immigrants must also grapple with acculturation. Acculturation can be broadly defined as, “…the change process that occurs with cross-cultural contact” (Patel et al., 2006 p. 165). Research analyzing acculturation among immigrant Hispanic adolescents found that individuals in this population struggle to balance cultural practices and values, such as balancing languages and placing equal value on individual achievement, common in individualist cultures, and on family obligations, common in collectivist cultures. Individualist cultures are ones that place greater importance on the individual, and their specific feelings and achievements. Conversely, collectivist cultures value one’s relationship to one’s family, and how their thoughts and behaviors reflect the family and its appearance. Working to find a balance between these seemingly conflicting cultures is difficult but essential, because an imbalance in individualist and collectivist values and cultural practices is associated with negative mental health effects, such as depressive symptoms (Schwartz et al, 2015). Similarly, two other studies looking at acculturation among ethnic immigrants found that greater intergenerational conflict and acculturation struggles predicted greater depressive symptoms, particularly among adolescents (Huq, Steing, & Gonzalez, 2016; Ying & Han, 2007).
Family separation and acculturation are both associated with greater depressive symptoms, lower academic achievement (GPA), and greater high school drop out rates than the average rate of the overall population of the U.S. (Krogstad, 2016). Since these obstacles are often not experienced among nonimmigrant groups, addressing them is not currently incorporated into intervention programs that serve the general student body. An intervention program that is specifically designed to address the obstacles faced by immigrants could fill the current hole in the literature and enable the given individuals to develop coping strategies for issues specific to their lives, like family separation and acculturation. This would likely improve their mental and emotional health and academic performance and contribute to lessening the achievement gap between the Hispanic immigrant and nonimmigrant population in the US.

**Hispanic Individuals in the United States**

The Hispanic population is the second fastest growing immigrant group in the United States, following the Asian immigrant population (Krogstad, 2016). It comprises 17.3% of the country’s total population, and within the next five decades, recently arrived Hispanic immigrants are expected to account for 25% of US population growth (Ennis, Rios-Vargas, & Albert, 2011; Zong & Batalova, 2016). Hispanic children, adolescents, and young adults are the youngest ethnic demographic in the US, constituting 32% of the population of those younger than 18 years of age and 26% of the millennial generation population (age 18-33; Krogstad, 2016). Despite this growth in numbers, the Hispanic population in the US remains one of the least educated ethnic groups. This population has the highest high school drop out rate (12%), one of the lowest enrollment rates in 2-year and 4-year colleges (35%), and the lowest rate of college completion (15%) compared to Black, white, and Asian populations (Krogstad, 2016). Such an educational achievement gap is the result of a multiplicity of factors.
One such factor is school climate, which greatly influences Hispanic students’ performance. The current political climate frames Hispanic immigrants as the scapegoat for the nation’s issues. Given that Hispanic immigrants are the largest group of undocumented immigrants in the U.S., many white Americans are discriminatory towards Hispanic individuals because of the perceived economic threat (taking the jobs of Americans) and cultural intimidation (Spanish language increasing in popularity in the U.S.) (Schwartz et al., 2015). As a result of these beliefs, Hispanic students often face discrimination in schools, which is associated with increased depressive symptoms (Lopez, LeBrón, Graham, & Grogan-Kaylor, 2016). Given the fact that mental health negatively affects academic success, increased depressive symptoms are associated with lower academic performance (Hodas, 2016).

These warped beliefs about oneself negatively impact Hispanic students’ performance. This phenomenon is known as stereotype threat, which, “… is a detrimental psychological state that inhibits individuals who belong to a negatively stereotyped group at times of learning and performance” (Weber, Appel, & Kronberger, 2015). Falling subject to stereotype threat is common in discriminatory school climates, which encourage distorted beliefs among members of a variety of marginalized groups about themselves and their own abilities. Students then believe they will not perform well academically and consequently perform poorly, creating a cyclical pattern. The combination of low-achievement and individuals holding discriminatory attitudes towards Hispanic students negatively affects Hispanic students’ academic performance by misleading them to think that they cannot attain academic success.

The stress-illness paradigm is another factor that disproportionately exists among minority groups. This paradigm holds that individuals experience poorer mental and physical health when they endure chronic stress than when they occasionally experience stress (Jackson,
Knight, & Rafferty, 2010). Minority groups report higher chronic stress than non-minority groups, which leads these groups to experience mental and physical health issues as a result of chronic stress. Among Hispanic individuals, this stress is often associated with suicidal ideation, substance use and/or abuse, and aggressive behavior (Cervantes, Fisher, Córdova, & Napper, 2012).

Given the obstacles that the Hispanic population faces in regard to academic performance, such as mental health, discriminatory school climates, substance abuse, and stereotype threat, interventions are needed to address these mitigating factors and subsequently improve Hispanic students’ academic performance. Because their situation is unique and thus poses unique problems, the Hispanic population needs a unique intervention to help improve the group’s academic achievement and to close the gap between the Hispanic population’s high school graduation rate, college enrollment, and college completion rate, and those of other racial and ethnic groups. A psychological approach would likely prove affective in addressing the myriad of psychological obstacles faced by the Hispanic population in the U.S. which hinder their academic performance.

**The Unique Plight of Adolescents**

Adolescents experience certain obstacles that are specific to their age group, such as family conflict, significant peer-influence, and an understanding of discriminatory sentiments aimed at them. Although all age groups have family difficulties and rely on their peers, adolescents are especially vulnerable to these issues and are greatly affected by the consequences of these interactions.

In general, adolescents are at greater risk for family conflict than are other age groups. This conflict is compounded by greater intergenerational differences and acculturation
adjustments that adolescent immigrants experience more than immigrants of other ages (Levitt, Lane, & Levitt, 2005). For instance, adolescent immigrants in the U.S. tend to “Americanize” more rapidly than older family members, thus breeding greater acculturation gaps between adolescents and their families. This intergenerational conflict is associated with greater depressive symptoms among adolescent immigrants than other age groups (Ying & Han, 2007).

The importance of peers in adolescents’ lives is another factor contributing to the unique experience of immigrating as an adolescent. This elevated importance means that adolescents are particularly aware of social situations with their peers; situations that do not affect younger or older individuals to the same extent. Research highlights the effect peers have on adolescents’ well-being, such that social interactions with peers significantly affect adolescents’ self-esteem (Vanhalst, Luyckx, & Goossens, 2014). Given that lower self-esteem is associated with increased prevalence of depressive symptoms, higher rates of mental health issues, and lower economic aspirations, low self-esteem is an issue that needs to be addressed among adolescents.

Furthermore, the vulnerability of adolescents in regard to their peers, manifested in feelings of loneliness and social isolation, and is associated with greater substance use and abuse, such as alcohol and marijuana (Mason, Zaharakis, & Sabo, 2016).

Unlike individuals who immigrate at a younger age, adolescent immigrants are aware of discrimination towards them. Being aware of the apparent discrimination that exists towards their specific ethnic group is tied to weak peer relations and social isolation, both of which are associated with greater depressive symptoms (Li & Wen, 2015; Thompson, Wojciak, & Cooley, 2016), and decreased self-esteem (Lopez et al., 2016). Given the positive correlation that low self-esteem has with poor mental health, factors that induce low self-esteem, such as discrimination, can have a substantial affect on adolescents’ mental and emotional well-being.
Being an adolescent poses obstacles that are unique to individuals in that age group; issues which other age groups may not face. For this reason, a study needs to be designed specifically for adolescents that will take in to account their likeliness of family conflict, their vulnerability to peer-based issues, and their awareness of discrimination towards them in order to prevent or lessen these factors’ subsequent effects on adolescents’ mental health. Addressing these age-related characteristics would enable adolescents to cope with such obstacles, improving mental health and the associated academic performance.

**Academic Interventions Currently in Place**

Academic intervention programs in the U.S. are currently in place in an effort to boost the academic performance of certain schools which are not on par with the nation’s average (comparing test scores and graduation rates) but lack resources to address such a performance. These include governmental programs, which provide tutors and mentors to certain schools, as well as private programs, which create a network of schools with a similar philosophy of hard work and acceptance. These programs address a variety of academic issues, however they do not tackle other concerns that are especially pertinent to students’ academic success.

**Americorps: City Year**. One such example is Americorps City Year, which was founded in 2005 in an effort to boost civic engagement among the country’s citizens and address the nation’s most demanding issues (“City Year: Our Approach”, 2016). Americorps City Year recruits volunteers to work in schools and provide extra academic help. Volunteers hold one-on-one and group tutoring sessions to improve students’ foundation skills in core subjects, such as reading and math. In addition to academics, City Year focuses on social-emotional learning, evaluating whether or not students have improved in skills such as self-awareness, self-management, and relationship management (“City Year: Our Approach”, 2016).
City Year’s approach is effective in improving the academic performance of the students it serves, however it is primarily an academic intervention. While City Year does measure social-emotional learning skills, its volunteers are not trained to handle the intense emotional and mental health issues that many students experience. The present study would address this limitation by employing professionals to focus on psychological well-being to improve mental health. Moreover, the City Year philosophy is applied to the entire student body as opposed to being geared towards specific factions within the general student population. The current proposed intervention is tailored towards recent adolescent Hispanic immigrants, and thus addresses mental and emotional obstacles specifically related to such a group. Because mental health problems often hinder academic success, such an approach would likely indirectly improve participants’ academic performance.

**Knowledge is Power Program.** The Knowledge is Power Program (KIPP) is an additional example of a current academic intervention in the U.S. These charter schools are located in Texas and have a student body comprised of 98% minority groups, most of which are Hispanic students. Since the student population is primarily Hispanic, KIPP has tailored its approach to close the achievement gap and foster a positive learning environment for the ethnic group with the highest high school drop out rate in the U.S. Lopez (2016) studied the KIPP approach, and found that a “caring school climate,…high expectations”, among other factors, contribute to the program’s success (p. 19). Among these factors, character development and a positive school climate are nonacademic focuses that City Year fails to incorporate into its approach.

While certain aspects of the KIPP philosophy indirectly improve academic success, such as fostering a caring school climate and emphasizing positive character traits are helpful, the
The program does not outline how it addresses mental and emotional health problems, which also affect academic success. The current proposed intervention works to remedy this gap in the existent programs by adopting many of KIPP’s values in regard to school climate and academic devotion, but also including direct emotional and mental support to address issues that may affect grades but cannot be attended to through a strictly academic approach. Moreover, KIPP schools have a large Hispanic population, but not a specifically Hispanic immigrant population. My intervention would address the obstacles that are specific to Hispanic immigrant students, since these obstacles are not accounted for in the KIPP philosophy.

**Psychological Interventions Currently In Place**

Psychological interventions are also currently in place to improve the mental and emotional well-being of various groups and individuals. These programs incorporate techniques, though none, to my knowledge, are catered towards Hispanic immigrant adolescents’ academic performance. Building off of these programs’ methods while tailoring to a specific group will likely prove effective in improving participants’ psychological well-being and academic performance.

**Achieving Success Everyday Group Counseling Model.** The Achieving Success Everyday (ASE) group-counseling model works to promote resiliency among middle school students (Rose & Steen, 2014). Resiliency is being successful academically irrespective of obstacles that pose a threat to that success. Promoting resiliency through ASE, the study argues, would work to improve students’ grades by helping them “feel better about themselves, interact better with peers, and behave better in the classroom” (Rose & Steen, 2014, p. 30). This program was a collaborative effort between students and counselors and met once a week for eight weeks,
with each week having a different psychosocial focus, such as self-advocacy, problem solving, and peer relations. Each theme was also accompanied by an activity that had been shown to promote the given goal of the session. Results found that the ASE framework was effective in improving students’ grades, though the improvement was not as substantial as was predicted.

The present study will mirror these session agendas, such as having a weekly topic and an accompanying activity. However, it will have a greater sample and run longer in an effort to boost the study’s ability to improve GPA. The weekly topics will also be adjusted and expanded to cater more towards recently immigrated Hispanic adolescents, although the study will maintain the approach of focusing on psychological factors to improve academic performance. The study will also have group sessions to promote peer support and social competency.

**Cognitive Behavioral Intervention for Trauma in Schools.** This study implemented a cognitive behavioral intervention in schools for Latino immigrant children who had experienced community violence. Implementing the intervention in a school helped to avoid financial constraints and transportation issues that often prevent the Latino community from accessing mental health care. The objective was to improve depressive and post-traumatic symptoms among participants from before to after the intervention. To achieve this, the study met in a small group for eight sessions with bilingual (Spanish and English speaking) social workers. The sessions incorporated Cognitive Behavioral Therapy (CBT) techniques, such as breathing exercises and fear hierarchies, to enable participants to cope with their respective experiences. The study proved effective such that the group in the intervention had greater improvement in depressive symptoms and post-traumatic stress disorder than did those on the waitlist (Kataoka et al., 2003).
The proposed study will also incorporate aspects of CBT, as many of the participants are likely to have depressive symptoms (Lopez et al., 2016; Ying & Han, 2007) and CBT has proven effective at improving such symptoms. Moreover, the population in the study by Kataoka et al. (2003) is catered towards a population similar to the present proposed study and so the present proposed study will employ the same strategies Kataoka et al. uses to cater to such a population. These strategies include hiring bilingual social workers to help overcome language barriers and implementing the program in a school to avoid the obstacles that immigrants often experience when trying to access mental health professionals (Kataoka et al., 2003). The current proposed study, however, will run for a longer period of time in an effort to address a broader spectrum of the obstacles that Hispanic immigrants experience, and to have a greater impact on participant’s psychological well-being and subsequent academic performance.

**Peer Network Counseling.** The Peer Network Counseling (PNC) philosophy holds that social stress, manifested in loneliness and social isolation, is associated with negative health results, such as substance use and depression. PNC is based upon Motivation Enhancement Therapy (MET), which is a one-on-one approach designed to promote the client’s own motivation to make lifestyle changes (Mason, Zaharakis, & Sabo, 2016). This study incorporates PNC in teen counseling, and holds that encouraging participants to want to make adjustments to their peer networks would decrease their social stress and subsequent substance use and depressive symptoms. Because substance use and depression are linked to lower GPA (Mason, Zaharakis, & Sabo, 2016), improving these mental health factors could have positive results for academic success. Adjustments to peer networks include participants modifying where and with whom they spend their time. This study met individually with participants once for 20 minutes, and significantly reduced substance use and depressive symptoms in the short-term.
Similarly to the PNC intervention for social stress, the current proposed intervention will also include PNC in an effort to address substance use and depressive symptoms that are common among recently immigrated Hispanic adolescents. The current study will also incorporate both individual and group sessions, and will endure for several months in an effort to achieve lasting results.

**The Present Proposed Study**

Recent Hispanic adolescent immigrants in the U.S. are a group facing obstacles specific to their status. For instance, family separation and acculturation are issues common among immigrants, and ones that often lead to increased high school drop out rate and depressive symptoms (Schwartz et al, 2015; Ying & Han, 2007). In addition to these factors, the Hispanic population in the U.S. also faces severe discriminatory sentiments, which also negatively impact mental health and academic performance (Lopez, 2016). Moreover, being a recently immigrated adolescent compounds family conflicts commonly experienced by adolescents in general. And since adolescents are mature enough to notice discrimination directed at them, immigrating as an adolescent has a host of obstacles specific to their age that current programs fail to consider.

Current intervention programs, such as City Year and KIPP, have proven effective in improving academic performance among their respective student bodies, but do not provide emotional support for their students. The current proposed study works to remedy this gap in philosophies by adopting many of City Year’s and KIPP’s values such as building on the ideas of individualized attention and school climate, but also including direct emotional and mental support to address issues that are specific to Hispanic immigrant students, since these obstacles are not accounted for in either approach.
In this study, the term “Hispanic” includes individuals from, or who have an ancestry from Spanish speaking countries, usually from Latin America. A “recent” immigrant is an individual who has immigrated to the U.S. within the past three years (Schwartz et al., 2015), and an adolescent is an individual between the ages of 12-17 years. This intervention will focus on recent immigrants because research has shown that intervening as quickly as possible upon arrival to the U.S. is effective in improving academic performance and mental health (Patel et al., 2015). The combination of the Hispanic population’s achievement gap in the U.S., the unique experience of recent Hispanic adolescent immigrants, and the interventions that currently exist to improve academic performance beg the question: Will an intervention that takes a psychological approach be more effective in improving academic performance than an intervention with strictly academic approaches? A psychological approach is one that attempts to address mental and emotional health, whereas an academic approach is one that directly helps with schoolwork, such as homework help.

The intervention proposed is based on analyzing current intervention programs and then creating three programs: one that assumes an academic approach (academic conditions), one that adopts a psychological approach (psychological condition), and one that take a neutral approach (control condition). Through this process, the study will attempt to add to the literature on programs that improve academic performance by designing an intervention that works to improve the academic performance of recently immigrated Hispanic adolescents in the U.S. through a psychological approach.

The study has three hypotheses. The first is that the psychological condition will see greater significant improvement in academic performance and psychological well-being than both the academic and control condition. The second is that the academic condition will produce
greater improvement in academic performance than the control group, though it will be insignificant. Among the academic condition, psychological well-being will also improve, but an insignificant amount (Wilson & Buttrick, 2016). The final hypothesis is that the control condition will not see significant improvement in academic performance or psychological well-being.
Method

Participants

This study expects to be approved by the Ethics Committee on the Institutional Review Board, and will then begin recruiting participants (Appendix A). Potential participants will be recruited from a single high school with a high Hispanic immigrant population (based on school records). In order to be eligible to participate in the study, students must have immigrated to the U.S. from a Latin American Spanish speaking country in the last 3 years as per Emergency Immigrant Education Program criteria (Kataoka et al., 2003). To meet further criteria for the study, students must be between 13 and 17 years old at the start of the study, and thus must be granted permission by a parent or guardian in order to participate in the intervention (Appendix B). The study will aim for a maximum of 159 participants (75 females, M=15, SD=2) (Figure 1). Previous studies have focused on smaller samples but have then found it difficult to generalize findings to a larger population. Due to such a limitation, this study aims to include a wider sample in order to generalize findings (Katoaka et al., 2003; Mason, Zaharakis, & Sabo, 2016).
Materials

**Academic performance.** Academic performance, the dependent variable, is measured through GPA and class engagement. GPA will involve taking the average of the students’ core classes (Math, Science, Social Studies, English) and comparing the means from before and after the intervention. Class engagement refers to “students’ constructive, enthusiastic, cognitively focused participation” in the classroom (Skinner, Pitzer, & Steele, 2016, p. 2100). Class engagement will be determined by compiling teacher reports from each students’ core subject. 

*Figure 1.* Proposed recruitment of participants. After predicted drop outs, there will be 50 participants in each condition.
teachers (Math, Science, Social Studies, English). Teachers will complete these reports one week before the intervention begins (roughly one quarter into the school year) to allow them time to gauge the participants’ behavior in the classroom prior to completing the report. The report will include several statements that measure class engagement, such as, “In my class, this student comes unprepared.” Teachers will respond to each statement using a Likert Scale, with 1 representing “Never/Strongly Disagree,” 3 signifying “Neutral/No Comment” and 5 representing “Always/Strongly Agree” (Appendix C). The first five statements measure behavioral engagement, with a higher score indicating greater engagement in class. The last five statements measure behavioral disengagement, and thus a lower score indicates greater class engagement.

To track progress from pre- to post-study, students who have a higher collective score for the first five question and a lower collective score for numbers 6-10 will indicate an improvement in class engagement. The statements are posed positively and negatively to control for the response bias, which could skew results if not addressed (Latkin et al., 2016). These will then be reverse scored to achieve an overall composite score for class engagement.

**Psychological well-being.** Psychological self-reports will be taken by participants one week prior to the intervention, during the participants’ free periods. These measures include the Short Acculturation Scale for Hispanic Youth (Smokowski, 2010; Appendix D), the Depression Scale for Children (Weissman, Orvaschel, & Padian, 1980; Appendix E) and the Rosenberg Self-Esteem Scale (Rosenberg, 1965; Appendix F). Completing these measures should take no more than 40 minutes in total. Each of these scales will also be translated into Spanish, to control for possible language barriers that could confound participants’ responses.

*Short Acculturation Scale for Hispanic Youth (SASH-Y).* To measure changes in acculturation, the present study will use a modified version of the Short Acculturation Scale for
Hispanic Youth (SASH-Y; Appendix D). This scale was adapted from the Short Acculturation Scale for Hispanic Individuals to be tailored towards a more youthful audience. One such adaptation includes simplifying the response options for children and teens to ensure comprehension (Barona, 1994). In addition to these modifications from SASH to SASH-Y, SASH-Y will undergo further adaptions to be best suited for the present study. Modifications include altering the topic of one question from radio programs to music, and adding the phrase “hanging out,” in addition to the word “parties.” These changes will make the scale more relevant to current times, trends, and pastimes and improve clarity, thereby enabling the participants’ scores to more accurately reflect their situations. The questionnaire utilizes a Likert scale ranging from one to four, with a higher score representing greater acculturation to U.S. culture.

*Center for Epidemiological Studies Depression Scale for Children (CES-DC).* The Center for Epidemiological Studies Depression Scale for Children (CES-DC) is a self-report that participants will take pre and post-intervention to track possible fluctuations in their scores (Appendix E). The scale includes a 20-item Likert Scale ranging from 0 (Not at all) to 3 (A lot). Items 4, 8, 12, and 16 are phrased positively as opposed to negatively in order to account for the response bias, and thus the scoring is the opposite (0=A lot, 3=Not at all). The developers of the scale suggest 15 as the cutoff score for indicating substantial depressive symptoms (Weissman, Orvaschel, & Padian, 1980). Though the present study is not related to epidemiological studies, the items on the scale are nonetheless effective in measuring depression in children and adolescents.

*Rosenberg Self-Esteem Scale.* The Rosenberg Self-Esteem Scale (Rosenberg, 1965) is a 10-item Likert scale used to measure self worth. The scale ranges from “Strongly Agree” (4
points) to “Agree” (1 point). Item numbers 2, 5, 6, 8, and 9 are reverse scored, meaning “Strongly Disagree” is 4 points, and “Strongly Agree” is 1 point (Appendix F). The sum of all the responses indicates the individual’s score, with a higher score representing higher self-esteem.

Procedure

Prior to enrolling in the study, students will be briefed in small groups (10 students) by the intervention’s social workers in regard to the intervention’s duration, its goals, and the commitment expected from both those running and those participating in the study. Students will be told the study will last three fourths of a school year and that the goal is to improve their academic performance. They will also be told that if they chose to participate they will be randomly assigned to one of three conditions: control, academic, or psychological. Students’ parents/guardians will be telephoned to inform them, either in Spanish or English, of these same points, and must sign a permission slip to allow the child to partake in the study (Appendix B).

Cultural sensitivity is essential while recruiting participants, since students’ engagement in the program is influenced by how well the intervention appeals to the given population’s cultural values (Carpentier et al., 2007). Employing culturally sensitive strategies includes hiring bilingual and bicultural social workers (Lin-Siegler, Dweck, & Cohen, 2016), appealing to traditional family values such as addressing family members formally (using “usted” instead of “tú”) (Kataoka et al., 2003) and stressing familismo, or the importance of the students’ respective roles in the family (Miranda, Azocar, Organista, Muñoz, & Lieberman, 1996). Moreover, utilizing strength-based cultural messages, such as describing the intervention as one that will “promote success,” appeals to the optimism that studies have shown is central to immigrant
groups’ attitudes (Rogers-Sirin, Melendez, Refano, & Zegarra, 2015) and increases the likelihood of their participation.

The study employs two bicultural/bilingual social workers, and 2 bicultural/bilingual teachers. Prior to the study, each social worker will lead a mock group session and mock individual session, which will be recorded and then graded by individuals outside of the intervention to ensure inter-rater reliability. The teachers will also lead group and individual tutoring sessions, and be graded to ensure inter-rater reliability. The teachers’ and social workers’ scores will then be compared and must not significantly differ from each other ($p<.05$) to ensure that the results of the study are due to the intervention and not because one social worker and/or teacher was better than the other at homework help or leading discussions.

The intervention will endure for three fourths of a school year; a duration that past research has found produces more significant results than shorter programs, such as one that lasts eight weeks (Kataoka et al., 2003). The intervention will begin one quarter into the school year to allow time to recruit participants as well as to allow time for the teachers to judge the engagement of their students before the intervention begins. As for the location of the intervention, offering it in school bypasses the many difficulties that Hispanic immigrants experience in accessing mental health resources, such as lack of health insurance, transportation issues, and financial constraints (Beehler, Birman, & Campbell, 2012; Miranda, Azocar, Organista, Muñoz, & Lieberman, 1996).

Before beginning the intervention, social workers will complete cultural competency training to ensure the intervention’s effectiveness is not limited by cultural insensitivity. Approaches such as openness to learning about a culture, acknowledging the influence of a given culture on participants’ personality and worldview, and being empathetic towards participants’
sentiments, are a sample of techniques that boost cultural competency (Kataoka et al., 2003). As licensed social workers, it is assumed that the social workers have already completed intensive cultural competency training in order to obtain their degree. However, social workers will complete cultural competency training specific to Hispanic immigrant youth (Beehler, Birman, & Campbell, 2012). This includes topics such as specific cultural practices and traditions, the current plight of many Hispanic individuals in the U.S., and ways to navigate bicultural dynamics during counseling sessions. Interventions that culturally adapt to the target population’s culture are four times more effective than those who do not, and therefore this training is essential to the intervention’s overall success (Rogers-Sirin et al., 2015).

Upon parents/guardians granting their child(ren) permission to enroll in the study, the participants will complete several baseline measures including SASH-Y (Appendix D), Rosenberg Self-Esteem scale (Appendix F), and CES-DC (Appendix E), and participants’ teachers will fill out class engagement scales. These measures will also be completed at the conclusion of the intervention, in order to track changes from pre-to-post intervention. The DV of this study is academic performance, which is determined by GPA, and class engagement. GPA is gathered from student transcripts. Psychological progress will also be tracked, and will be measured based on teacher engagement forms, SASH-Y (Appendix D), Rosenberg Self-Esteem scale (Appendix F), and CES-DC (Appendix E). High school graduation rate for each condition will also be recorded and compared, based on transcripts.

**Psychological Condition.** Students will meet with social workers twice per week, once individually and once in a small group comprised of 10 students, for one-hour sessions. For the first four weeks, sessions will be held every week. After week four, participants will meet biweekly. While the present study did not find literature which adopted this exact model, most
psychological interventions did not endure for more than a few months due to budget and time constraints (Beehler, Birman, & Campbell, 2012; Mason, Zaharkis, & Sabo, 2016; Rose & Steen, 2014), despite the finding that longer interventions often improve outcomes (Kataoka et al., 2013). The present study will try to find a compromise between emulating past literature by having a limited number of sessions that most efficiently utilizes both participants’ and researchers’ time and is simultaneously long enough to produce significant results. To achieve such a balance, participants in this condition will meet with the social worker every other week.

During the week, participants will have individual therapy and group therapy sessions focusing on the same topic. Such an arrangement allows the benefits of group and individual sessions to work together to enable the overall intervention to be more effective than if the intervention included only one or the other. This is because while individual therapy creates a space for participants to share more personal stories and feelings with the social worker, group sessions allow individuals to establish peer connections and strengthen ethnic identities (Kracen, Mastnak, Loaiza, & Matthieu, 2013). These benefits of group sessions are fostered through mirroring the concept of Cuento Therapy, which is a treatment that works to lessen the bicultural gap among Puerto Rican adolescents by matching them with role models from a similar culture (Miranda et al., 1996). The philosophy holds that relationships between the participants of varying ages could address and mitigate the effects of the bicultural gap through creating social ties and strengthening ethnic identity, as exemplified in past literature (Miranda et al., 1996). Both group sessions and individual sessions create atmospheres to talk about the given topic while overcoming potential issues of either group or individual therapy dynamics (Mason, Zaharakis, & Sabo, 2016; Rose & Steen, 2014).
The psychological condition will have fourteen sessions. Each session is centered on a topic that the literature indicates is an obstacle recently immigrated Hispanic adolescents face. In conjunction with each session’s topic, the social worker will lead an activity that past research has used to develop participant's coping skills in response to given obstacles. By addressing a plethora of obstacles specific to the given population, this condition aims to see improvement in psychological well-being and subsequent academic performance. The weekly agenda of the psychological intervention is outlined in Appendix G.

Meeting Itineraries. The first four sessions meet weekly, and then biweekly until sessions 20-22. Building off of past research, each meeting centers on an issue specific to adolescent Hispanic immigrants who immigrated to the U.S. within the past three years (Rose & Steen, 2014). At the end of each session, social workers debrief with the group and each member records one new insight they gained.

Session 1. The first meeting will focus on establishing rules and goals for the following sessions. This is meant to be a collaborative effort, so participants feel a sense of control and engagement with the dynamics of the group (Rose & Steen, 2014). The social worker will introduce ideas for guidelines, such as maintaining members’ confidentiality outside of the group, sharing experiences on a voluntary basis, and promoting an atmosphere of acceptance. The social worker will also explain the goals of the study, which include improving GPA through addressing issues related to being a Hispanic immigrant through avenues such as promoting peer relations, fostering educational resiliency, and improving mental health. Past research has shown that establishing concrete, attainable goals through a collaborative effort motivates individuals to achieve these goals by the end of the program (Rose & Steen, 2014).
Session 2. The second session will focus on reviewing the teachers’ responses. The social worker will compile the teacher’s responses and hand them out to the participants. Participants reflect on these class engagement reports by writing down two things they are doing well, and two areas in which they can improve. The participants can brainstorm techniques they use to improve class engagement (ex. ask questions, take notes, etc.; Rose & Steen, 2014). Past research has shown that establishing tailored goals based on feedback and providing assistance in achieving those goals improves students’ likelihood of achieving their goals (Wilson & Buttrick, 2016).

Sessions 3. The third and fourth sessions will work to foster educational resiliency. Promoting educational resiliency means helping participants achieve academic successful despite potential barriers to such success (Rose & Steen, 2014), such as family conflict and social isolation. In the third session, the social worker and participants will brainstorm a definition for resiliency. After creating a working definition, participants will apply the concept to situations in their own lives by creating timelines. Students will plot and voluntarily share a time they faced an obstacle, but used techniques to overcome it (ex. talk to family member, go to extra sports practices, etc.; Rose & Steen, 2014; Appendix H). Once participants share, the group will brainstorm ways the skills discussed can be used in regard to classroom engagement, grades, and homework. In past research, this activity has worked to promote motivation and self-pride among participants, (Rose & Steen, 2014) which are associated with improved academic achievement (Wilson & Buttrick, 2014). Through this activity, students are expected to increase their resiliency, thus improving their academic performance.

Session 4. The fourth session will expand on the theme of resiliency introduced in the third session by recapping the previous meeting, and reminding the group of the definition of
resiliency. The social worker will then lead an activity in which each participant draws 3 columns: “I have”, “I am”, “I can” (Appendix I). The “I have” column includes resources outside of the participant that the student can utilize, the “I am” column encompasses the participants’ strengths that they have within themselves, and the “I can” column includes tools and skills that the participant can use to overcome obstacles (Rose & Steen, 2014). This activity will enable the student to recognize the resources and skills they possess and/or can access to achieve their goals. Past research has found this exercise to be helpful in promoting resiliency and subsequent academic success (Rose & Steen, 2014). After this session, meetings will be held biweekly until Week 18.

Session 6. An overarching theme of the next session, and the general psychological condition, will be to change participants’ core beliefs about themselves, their abilities, and their environment. Past literature points to “construals”, or individuals’ “interpretations of themselves and their environments”, as greater influences on individuals’ behaviors than personality traits (Wilson & Buttrick, 2016, p. 392; Lin-Siegler et al., 2016). Due to the major influence of these beliefs on individual achievements, changing such sentiments to be more supportive of the individual is key in promoting positive self-concepts and subsequent academic success. In this session, the social worker will lead a discussion on construals, and participants can share some beliefs and thoughts they have about themselves that may limit their own academic success (stereotype threat). Then, the students will complete the values affirmation exercise, which works to reduce stress in minority groups in academic settings by highlighting their values outside of academia, such as spending time with family members or being a good listener (Wilson & Buttrick, 2016; Appendix J). Past literature has found that highlighting these qualities
often improves academic performance among minority groups by emphasizing strengths they possess outside of the area in which they may struggle (Wilson & Buttrick, 2016).

After this, the social worker will share narratives about accomplished academics, such as Albert Einstein, struggling academically (Appendix K). This will serve to highlight the malleability of intelligence, and alter the participants’ various construals that intelligence is something that one either possesses or does not possess (Wilson & Buttrick, 2016). After sharing these stories, the social worker will explain ways of combating such a construal by promoting the narrative of “if I work harder I can understand these concepts” and eliminated beliefs that “I am just not good at math”. Research has shown that emphasizing the malleability of intelligence and altering the narratives surrounding intelligence helps in combating individuals’ negative beliefs about themselves and their abilities; beliefs that often stem from minority group status (Wilson & Buttrick, 2016). During this session, participants develop coping skills in response to the psychological effects of minority status and can create a defense against internalized stigmatization. By altering such a narrative, participants will be better able to combat the stereotype threat associated with their immigrant status and/or ethnicity, and subsequently improve their academic performance.

Session 8. The following session will discuss biculturalism and strengthening ethnic identity. The first exercise involves participants creating a Venn Diagram in which one circle contains U.S. cultural components and the other circle has cultural characteristics from the country in which the individual immigrated. The middle section will stress similarities between the two cultures (Appendix L). This exercise highlights the similarities between the two cultures, which aids with the process of acculturation and biculturalism (Weber, Appel, & Kronberger, 2015). Moreover, this exercise helps individuals integrate two seemingly opposing cultures in an
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Effort to explore their unique bicultural identities; explorations that help improve family relationships and mental health (Schwartz et al., 2015). During this activity, participants will share what they include in their Venn Diagrams. In sharing aspects from bicultural experiences, members discover similarities between their backgrounds and others’ in the group, which can work to strengthen ethnic identity (Weber, Appel, & Kronberger, 2015). Forming such bonds has been found to address social stress and loneliness; feelings that are common among immigrant populations, and often have negative effects on mental health (Huq, Stein, & Gonzalez, 2016; Rose & Steen, 2014). Since navigating biculturalism is associated with poor mental health outcomes (Schwartz et al., 2015), and improving mental health is linked with academic success (Hodas, 2016; Lopez et al., 2016), introducing the Venn Diagram activity to manage biculturalism would likely serve to improve participants’ academic achievement.

Session 10. After completing session 8, participants will continue to session 10. This session aims to help participants manage family conflicts that are associated with acculturation. This can include peers, dating, or issues with cultural incongruities that create tension within the family (Schwartz et al., 2015). A way to ease the strain of acculturation is to incorporate values and practices from US culture into those of the individuals’ respective Hispanic cultures (Schwartz et al., 2015). This means finding a balance between collectivist and individualist values (Ex. “I’d rather depend on myself than others” and “family members should stick together no matter what”) (Schwartz et al., 2015). Past research shows that finding a balance between these ideologies has positive mental health outcomes and, research posits, would subsequently improve academic performance (Schwartz et al., 2015). To foster this balance, this session will incorporate Cognitive Behavioral Therapy techniques, such that individuals create a fear hierarchy of aspects of their lives based on acculturation, ranging from things that are difficult to
talk about to things that are more manageable (Rose & Steen, 2014). The group could brainstorm ways to approach such issues to find a balance between one culture and the other. Research has found that taking a cognitive behavioral approach helps create clear steps for how to address issues that seem daunting, and would equip participants with skills that would likely improve family relations (Rose & Steen, 2014). Given that family conflict due to acculturation largely contributes to stress experienced by immigrant adolescents, (Schwartz et al., 2015), addressing this issue would likely reduce stress, improving mental health and academic achievement.

Session 12. Upon completing session 10, participants will continue onto session 12, which will focus on a modified version of Peer Network Counseling (PNC) used in the study by Mason, Zaharakis, & Sabo (2016) to reduce social stress. During this session, participants create a diagram of their peer networks, mainly who they hang out with and for how long relative to other peers, and reflect on whether or not those interactions are positive or negatively contributing to the participant’s mental health and academic achievement (Appendix M). In doing this, the participant takes an active role in modifying their own peer network, and is thus more open to making effective changes and reducing negative influences (Mason, Zaharakis, & Sabo, 2016). Since activities associated with various peers, such as risky behavior and substance abuse, influence academic achievement (Córdova, 2016), modifying negative influences can improve academic performance.

Session 14. The next session will expand on the modified PNC model by focusing on the relation between peers and self-esteem. Because the population in this study is subject to lower self-esteem, which negatively impacts academic performance by lowering GPA and class engagement, working to raise individuals’ self-esteem would likely also raise their GPA’s (Li &
Warner, 2015; Thompson, Wojciak, & Cooley, 2016). A way to combat low self-esteem is by focusing each individual on their own positive self-concept (positive things they think about themselves; Rose & Steen, 2014). Participants will list positive attributes about themselves and others (anonymously) to visualize their self-concepts. Previous literature has found that focusing on self-concept empowers individuals and creates a barrier to negative peer influences that could lower self-esteem (Thompson, Wojciak, & Cooley, 2016). Given that lower self-esteem is associated with lower academic performance, improving self-esteem would likely improve grades.

Session 16. Following peer networking adjustments, participants will focus on resisting substance abuse in session 16. While much of substance abuse prevention is related to modifying peer networks (Mason, Zaharakis, & Sabo, 2016), techniques to resist substance abuse is also necessary for a population at such high risk for adolescent and early adult substance use (Córdova et al., 2016). Past literature has shown that for adolescents, programs that focus on personal goals and identity, and the potential of substances to interfere with these goals and self-concepts, are the most effective approaches to preventing and addressing substance abuse (Onrust, Otten, Lammers, & Smit, 2016). An additional study also found that creating individual plans for changing risk-related behaviors allowed each participant to tailor the program to their own lifestyles (Spicer & Miller, 2016). Based on these findings, this session will have participants outline their personal and academic goals. As a group, members will discuss ways that substance abuse could interfere with these goals, such as taking up time that could be devoted to homework or sports practices. By preventing and addressing substance use and abuse, participants can resist and/or overcome the obstacles posed by substance use. This will likely
enable them to perform better academically after the intervention as opposed to before, since substance use often interferes with academic performance (Córdova et al., 2016).

Session 18 and Session 20. Session 18 will center on anxiety, and Session 20 will focus on depression/sadness. Both sessions will discuss ways to cope with such feelings through Cognitive Behavior Therapy techniques (Kataoka et al., 2003). In each session participants will outline a time they felt anxious/depressed/sad (examples: before a test, first day at a new school, not knowing the language, feeling left out of a social group). The social workers will then guide participants through ways to cope with these feelings, such as working on breathing exercises of 10 counts in and 10 counts out, as well as writing down how the individual felt, and creating a plan for how to identify and rid oneself of negative thoughts and replace them with positive and constructive ones (Kataoka et al., 2003). For instance, the negative narrative “I am no good no one likes me” can be replaced with “Maybe my friend is having a bad day today, I’ll ask her to hangout tomorrow” (Kataoka et al., 2003). Cognitive Behavior Therapy has been shown to improve mental health, and since mental health and academic performance are linked, an improvement on mental health would likely mean an improvement in academic performance.

Session 21. Session 21 will be a concluding session, in which individuals reflect on exercises they thought were helpful and plans to implement the skills gained in real life situations. In order to maintain the potential progress that has been made, the social worker will give each participant the school social workers’ contact information, as well as information on community programs addressing obstacles that recent adolescent Hispanic immigrants experience (Kataoka et al., 2003). This could include Girls and Boy’s Clubs of America, Youth Associations, and Immigrant Justice Centers.
Session 22. During the final session of the intervention participants will retake the measures they took pre-intervention. These measures include the Short Acculturation Scale for Hispanic Youth (Smokowski, 2010), the Depression Scale for Children (Weissman, Orvaschel, & Padian, 1980) and the Rosenberg Self-Esteem Scale (Rosenberg, 1965). Individuals’ scores on these measures will be compared with their pre-intervention scores to reveal any changes that may have occurred from before to after the study.

The sessions in this condition cover a wide range of obstacles: from depression to acculturation to peer networks. Past literature has highlighted these numerous issues as ones specific to the intersection of being a recently immigrated Hispanic adolescent. By addressing these obstacles, participants will ideally be equipped with skills to cope with such difficulties that limit their academic success, thereby improving their academic performance.

Academic Intervention. This condition will emulate current interventions that adopt strictly academic approaches to improving academic performance. The results of this condition will be compared directly to the psychological condition and control condition. Holding most variables constant allows researchers to attribute differences in results between the psychological and academic condition to the different philosophies informing the conditions, and not to the conditions’ differences in structure. This condition is outlined in Appendix N.

Session 1. Similar to the psychological condition, the first week of the academic condition will be an introductory session, in which the group collaborates on rules and goals for the sessions. The tutor will introduce ideas for guidelines, such as maintaining members’ confidentiality outside of the group, promoting an atmosphere of acceptance, and giving a concerted effort on assignments. The tutor will also explain the goals of the study, which include improving GPA through time management training, promoting study skills and homework help
with a certified teacher. Unlike the psychology condition, however, this condition will meet every week to emulate the homework help schedule of AmeriCorps City Year, which meets with students weekly and/or daily to offer academic assistance (City Year: Our Approach, 2016). This condition is outlined in Appendix N.

**Session 2.** This week will focus on academic skills that foster improved academic achievement. Tutors will introduce the concept of time management, which refers to behaviors meant to promote efficiency (Nonis & Sager, 2003). The group will brainstorm the specific behaviors this could entail, such as list making, planning, and organization (Macan, 1990). Each individual will then write down goals they have set for the year and the quarter, and ways they will achieve these goals through daily, weekly, and monthly “to do” lists (van Eerde, 2003). This goal setting/goal striving dynamic is meant to establish objectives and concrete ways of completing such objectives. Implementation intentions, for instance, include where and when these goals will be achieved (i.e. homework after school at my desk in my room). Such a concrete plan is meant to make achieving goals less abstract and trigger certain behaviors based on location and time (Gollwitser & Brandstatter, 1997). Studies have shown that having a concrete plan of action and utilizing time management mechanics such as to do lists and goal setting work to suppress procrastination and improve productivity (Macan, 1990; Nonis & Sagar, 2003; van Eerde, 2003). Improving productivity would likely boost GPA and class engagement, as students would be better at completing homework assignments and participating in class.

**Session 3.** The following week will concentrate on study skills. Participants will first take a test that determines the type of learner (auditory, visual, kinesthetic) the participant seems to be (Appendix O). The test then provides study habits that best align with the participant’s ideal style of learning, such as reading notes aloud if the participant is primarily an auditory learner (“What
Type of Learner Are You?”, 2016). With this information, students can tailor their study habits accordingly and likely improve their absorption and understanding of material, and subsequent academic performance. During this session, the tutor will also introduce the implementation of a quiet hour, in which students work to set aside a time with minimal interruptions in order to focus on a specific task. Research has found that individuals who used a quiet hour experienced higher productivity than those who did not (Konig, Kleinmann, & Hohmann, 2013). According to these results, encouraging participants to use a quiet hour while studying would increase their productivity, enabling them to more frequently and effectively complete homework and study for tests, thereby improving their GPA.

Session 4-19. The following sessions in this condition will not be structured. Instead, the students will come to each session with assignments they need to complete, and the tutor will offer help when needed. This format mimics that of City Year, in which tutors help with homework in small groups and one-on-one tutor sessions (“City Year: Our Approach”, 2016).

Session 20. Similarly to the psychological condition, the second to last session (week 20) of this condition focuses on recap and relapse prevention. The groups will review time management techniques and study skills, and the tutor will distribute information of the school social worker, dates and times of after school homework help programs, and community centers.

Session 21. During the final session the participants will retake the measures for self-esteem, acculturation, and depression, which will be compared to their before intervention scores to track any changes in scores.

**Control Condition.** Students will meet during their free periods twice a week, once in a group and once individually, just as in the academic and psychological conditions. Each student will be randomly assigned to meet with a tutor and a social worker once a week, to control for
the exposure they have to various professionals. These meetings will not be structured, though
the student will have the opportunity to ask the tutor for help with homework or talk about
emotions they are experiencing. This condition has weekly meetings, like in the other conditions,
to ensure that the student has the same exposure to adult attention as the students in the other
conditions. Making this variable (adult attention) constant controls for the possibility that the
results of this study are not due to one group spending significantly more or less time with a
professional than the others (Mason, Zaharkis, & Sabo, 2016).

In regard to the type of control group, various past interventions have argued for a dosage
group, in which the participants in the control group receive some aspects of the intervention but
in a smaller amount than in the other conditions (Beehler, Birman, & Campbell, 2012).
Researchers argue that this is more ethical than individuals wishing to enroll in an intervention
but being sorted into the control group in which they do not receive any of the study’s potential
benefits. Although this perspective is valid, the present study will work to emulate aspects of the
academic and psychological conditions to keep variables as constant as possible while
simultaneously working to make the control condition the least intervention-intensive. This
approach is to ensure that there is the greatest possibility for the results being a product of the
intervention and not a results of other factors. Moreover, if the intervention does produce
favorable results, it can be implemented school-wide the following year, and every student who
wishes to participate will be involved in the intervention.

The last week of this condition will also include completing the baseline measures to note
any changes in self-esteem, acculturation, depression, or academic performance, as well as
dispersing handouts of community centers, the information of the school social worker, and after
school homework help opportunities.
Design

The following are the predicted results of the present proposed study. Prior to the start of the study, a power analysis will be run to determine the appropriate sample size for the study. After this, a 2 (Time: before and after) x 3 (Condition: psychological, academic, and control) mixed factorial ANOVA will be conducted. The independent variable is condition, with psychological, academic, and control levels. There are two dependent variables: psychological well-being and academic performance. The primary dependent variable is academic performance, measured through GPA and class engagement. Psychological wellbeing, the dependent variable of secondary importance, will be measured through acculturation, depression, and self-esteem. Correlations will also be run to reveal the strength and direction of predicted relationships between variables.

Predicted Results

The following data are anticipated outcomes informed by a combination of results from previous research. Although these past scores are not derived from the same population as the given study, they provide adequate starting points from which to base the predicted results of the current proposed study. Both academic performance and psychological well-being are dependent variables. Categorical variables include high school completion and gender. High school graduation and psychological well-being, including acculturation, self-esteem, and depression, are considered covariates because of their potential influence on academic performance.

Preliminary Analysis

Demographic Predictions

A series of tests will be conducted prior to the start of the study to ensure the groups do not differ in sex makeup or age. This is done because differences on these variables could
confound the results. A one-way analysis of variance (ANOVA) will test for potential age group differences among the conditions before the start of the intervention, and are predicted to be insignificant \( F(2,147)<3.00, p>0.05 \). Gender will be evaluated through a chi square test of independence and is also predicted to produce insignificant results \( X^2(2, N=150)<5.992, p>0.05 \); Table 1). Both of these tests are predicted to produce insignificant results because the participants will be randomly placed in to their groups through a computer generator, decreasing the possibility of initial significant group differences. Cronbach’s alpha will be conducted for self-esteem, depression, and acculturation measures and is predicted to be 0.90 for each \((\alpha=0.90)\).

**Power Analysis**

The means from past research, when plugged into G*Power, indicate that the sample size needed for 80% power and a large effect size at the 0.05 significance level in the chi square tests of independence is 39 participants. Moreover, for a factorial ANOVA, 54 participants are needed for 95% power, a medium effect size and an alpha of 0.05. The current proposed study aims for 150 participants to improve the likelihood of correctly detecting an effect.

**Composite Scores**

**Academic Performance.** In order to get a single value for the academic performance variable, GPA and class engagement must be weighted and combined. Since GPA is on a scale of 4.00 and class engagement will be on a scale of 50.00, the GPA means will be multiplied by 12.50 to be on the same scale as class engagement (Table 2). Means and standard deviation values for GPA “before” intervention are based on the findings from Lopez (2016), who gathered data from a sample of 74 high school students, 94% were Hispanic. The class engagement “before” values are from a study by Skinner, Pitzer, and Steele (2016) with a sample
of 144 students \((M_{age}=9.72)\), 94% of whom were Caucasian. The “after intervention” values are predicted (Table 2).

**Psychological Well-Being.** Psychological well-being will be converted into a single score because separating depression, acculturation, and self-esteem would make it difficult to draw conclusions about the significance of changes for psychological well-being, since the values would be not be uniform. Psychological well-being will therefore be a single weighted composite score comprised of self-esteem, depression, and acculturation values. In order to get a composite score, each measure must be on the same scale. Because participants can score a maximum of 60.00 on both depression and acculturation measures, self-esteem will be converted to 60.00. This will be done by multiplying each self-esteem score by 1.50, creating a maximum score of 180 for psychological well-being. Moreover, because depression improvement would result in a decrease in scores rather than an increase, the questionnaire will be reverse coded. The composite score for psychological well-being is calculated for the psychological, academic, and control condition by combining the means of each measure (Table 2).

The predicted mean for self-esteem for “before intervention” is based on the results of the Rosenberg Self-Esteem scale of a sample of Mexican immigrants \((M_{age}=36.46)\) (Kim, Hogge, & Salvisberg, 2014). A depression score was found for a sample of 1400 adolescents, 91% Caucasian taking the CESD-C (Olino et al, 2013). However, because this sample is primarily white and therefore very different than the current proposed study’s target population, the depression score of the past study is likely much higher than the anticipated scores of the sample of this study (Cervantes, Fisher, Córdova, & Napper, 2012; Krogstad, 2016). For this reason, predicted depression scores will be estimated instead of taken directly from past literature. The
“before intervention” anticipated score for acculturation is from an assessment of SASH-Y 
\( M_{age}=13.1 \) in which 50% of the population was Hispanic (Barona & Miller, 1994).

**Main Analysis**

**Academic Performance**

I hypothesize that the psychological condition will improve significantly from before to after the intervention, and have significantly greater improvement in academic performance than the academic and control conditions. The academic condition will see slight improvement from before to after the intervention, although insignificant, and the control condition will see no change before and after the intervention for academic performance. To test this, I will run a 2 (Time: before and after) x 3(Condition: psychological, academic, control) mixed factorial ANOVA. Time is within subjects and Condition is between subjects. The results are predicted to reveal a significant interaction, such that Time and Condition depend on one another to influence academic performance at each level, \( F(2, 144)>3.00, p<0.05 \). In addition to a significant interaction, I hypothesize that there will be a main effect for Time, such that there will be a significant difference in scores from before \( (M=56.50) \) to after \( (M=72.33) \) the intervention, \( F(1, 144)>3.84, p<0.05 \). I also predict a significant main effect for Condition, \( F(2, 144)>3.00, p<0.05 \) (Table 2, Figure 2). Because this main effect should be significant, I will conduct a post hoc Tukey test which should show that participants in the psychological condition will produce greater improvement in academic performance \( (M=72.38) \) than those in the academic \( (M=64.38) \) and control \( (M=56.50) \) conditions, \( F(2, 144)>3.00, p<0.05 \) (Table 2; Figure 2).

**Psychological Well-Being**

I hypothesize that the psychological condition will produce significant improvement for psychological well-being from before to after the intervention, and this improvement will be
significantly greater than the other two conditions. The academic and control conditions will not see significant improvement from before to after the intervention in regard to psychological well-being although the academic condition will see slightly more improvement than the control condition. To test these hypotheses, I will conduct a 2 (Time: before and after) x 3(Condition: psychological, academic, control) mixed factorial ANOVA. The results are predicted to reveal a significant interaction, such that both time and condition depend on one another to produce a change in psychological well-being, $F(2, 144)>3.00, p<0.05$ (Table 2; Figure 3). Moreover, I predict a main effect for Time, such that psychological well-being scores will be greater after ($M=137.17$) the intervention than before ($M=118.51$), $F(1,144)>3.84, p<.05$. I also predict a significant main effect for Condition, $F(2,144)>3.00, p<0.05$. To determine where the conditions differ significantly on scores of psychological well-being, the study will run a post hoc Tukey test. The post hoc Tukey test will likely reveal that the psychological condition produced significantly greater improvement for psychological well-being ($M=138.00$) than the academic conditions ($M=127.00$ and control conditions ($M=118.51$), $F(2, 144)>3.00, p<0.05$.

High School Graduation

High school graduation is a covariate because of its relevance to academic performance and psychological well-being among recently immigrated Hispanic adolescents. A chi square test of independence is predicted to reveal a significant difference between the psychological condition and the academic and control conditions, such that more individuals graduate high school in the psychological condition than in either of the other two conditions ($X^2 (2, N=150)>5.992, p<.05$; Table 3).

Correlation
Academic Performance. Within the variable of academic performance, I hypothesize that GPA and class engagement will be strongly positively correlated such that as one variable increases, the other does as well. To test this, I will run a correlation, which is predicted to produce significant results ($r(148) p<.05$; Table 4).

Psychological Well-Being. Within the psychological well-being variable, depression, self-esteem, and acculturation are predicted to correlate with one another. Specifically, depression and self-esteem will have a strong negative correlation, such that as depression decreases self-esteem increases, and as self-esteem increases depression decreases (Table 4; Beer & Beer, 1992). Depression and acculturation are also likely to have a strong negative correlation, such that as depression decreases acculturation scores increase and vice versa (Schwartz et al, 2015). Self-esteem and acculturation are predicted to have a medium positive correlation ($r(148)=0.40$), such that as one increases the other also increases, see Table 4 (Avila, 2015). Correlations will be conducted on all these variables and are expected to support these hypotheses.

Between Variables. In addition to the above correlations, I predict several correlations across academic performance and psychological well-being. For instance, I predict self-esteem and GPA will have a strong positive correlation, see Table 4 (Li & Warner, 2015; Thompson, Wojciak, & Cooley, 2016). I also anticipate that self-esteem and class-engagement will have a strong positive correlation. Furthermore, GPA and class engagement are anticipated to produce a positive medium correlation. The study predicts that class engagement will be mildly positively correlated with both acculturation and depression (Table 4). I will conduct a correlation analysis for these variables to determine if they are in fact significantly correlated at a significance level of 0.05.
Discussion

This proposed study is an attempt to fill the gap in the literature on programs that promote academic success. Programs currently in place adopt an academic approach to improving academic performance, whereas the current proposed study aims to test the possibility of improving academic performance among recently immigrated Hispanic adolescents through a psychological framework. The predicted results are expected to support the hypotheses that the psychological condition will significantly improve academic performance and psychological well-being, that the academic condition will see improvement, though ultimately insignificant for both academic performance and psychological well-being, and that the control condition will not generate improvement on either variable.

Improving psychological well-being through group and individual counseling sessions aligns with results of past literature, which found that Peer Network Counseling, Cognitive Behavioral Therapy, and the Achieving Success Everyday Model, among other frameworks, improved various aspects of psychological well-being (Kataoka et al., 2003; Mason, Zaharakis, & Sabo, 2016; Rose & Steen, 2014). The predicted results will simultaneously build on this literature by tailoring to the experiences and academic performances of recently immigrated Hispanic adolescents in the U.S., thus creating a model that, to my knowledge, does not currently exist. The predicted results are also anticipated to show that psychological approach over time leads to significantly improved academic performance, highlighting the need for these programs to exist for an extended period of time to have significant, lasting positive effects.

The predicted results for the psychological condition reveal that improving psychological well-being will subsequently improve academic performance. This finding will align with the current literature that shows individual ties between self-esteem, acculturation, depression, GPA,
and class engagement (Avila, 2015; Beer & Beer, 1992; Mason, Zaharakis, & Sabo; Schwartz et al., 2016). The current proposed study’s predicted results should expand on these findings by solidifying the tie between psychological well-being and academic performance within the context of a population not previously the focus of such an approach. The findings will emphasize that psychological approaches in combination with a program that endures for a significant portion of the school year (in this study three fourths of the school year) are more likely to produce significant results than shorter lasting programs with different approaches. These predicted outcomes will also challenge the idea that an academic approach is the ideal method for improving academic performance. It will do so by highlighting that within the context of recently immigrated Hispanic adolescents, improving psychological well-being is in fact more effective in improving academic performance than is an academic approach.

The predicted significance of the psychological condition producing the greatest academic performance improvement compared to the two other conditions is anticipated because perhaps there are many mental and emotional obstacles in the way of academic performance that recently immigrated Hispanic adolescents must overcome. Thus, a program which works to improve psychological well-being is likely to see the greatest academic performance improvement as well.

Limitations

Participants. This study has several limitations. First is the probability of finding such a population in one school. While recent Hispanic immigrant adolescents are a substantial group in the U.S., they are likely not concentrated in one school the way this study outlined. Although being based in one school would be ideal, the intervention needs to be flexible to account for this potential drawback.
Method. Although participates in the study enrolled because they were interested in psychological and academic guidance, the participants in the control group will receive very limited support. While some research claims that this design may be unethical, it is the most effective way to hold variables constant and track differences among conditions (Beehler, Birman, & Campbell, 2012). To address this limitation, participants in the control condition will have the option to enroll in the psychological intervention the following year, pending significant results.

The measures of psychological well-being are also a limitation because they are all self-reported measures. Research has shown that this type of reporting can produce results that do not accurately reflect the situation due to an array of factors. One such factor is social desirability which is reporting what you think the researchers want as opposed to what is true (Latkin et al., 2016). Although several items on each measure were reverse scored to control for response bias, self-reporting is inherently prone to biases.

The “white savior complex” is also a potential point of criticism. This concept critiques the habit of white individuals supposedly helping marginalized groups, when in fact their efforts are motivated more to ease their own conscience than they are actually effective at addressing the marginalization of minority groups. The actions actually perpetuate white privilege as opposed to rectifying the marginalization of other groups (Cole, 2012). Because I am white, there are certainly aspects of being a recent Hispanic immigrant that I will not understand regardless of the amount of research or interviews I conduct. However, I look to rectify this limitation by employing bilingual and bicultural staff, knowing Spanish myself, and working to be as culturally sensitive and competent as possible through extensive trainings. My hope is that
the benefits of the study outweigh this potential drawback, and that the intervention will constantly adapt to make the program more inclusive.

**Future Directions**

Assuming the predicted results are confirmed, the implications of these results would be multi-faceted. One is that it would reinforce the finding that psychological factors also contribute to a student’s performance in the classroom. This would hopefully alter the methods employed by future interventions to improve academic performance such that they would include a psychological component to achieve improved GPA. Moreover, highlighting the impact that psychological issues have on academic performance could contribute to greater accessibility to mental health resources.

Confirming the predicted results would also indicate that marginalized groups benefit from tailored programs. It would show that extra attention and guidance work to rectify the systematic disadvantages immigrant Hispanic adolescents experience within the framework of schools in the US. The academic progress promoted by such programs can function to lessen the achievement gap among ethnic minorities. The effectiveness of tailoring programs to specific groups would also expose the different needs different groups have, and that addressing these needs is important to promoting success in various facets of life.

The present study would also work to lessen the achievement gap among Hispanic immigrants in the U.S. and other ethnic groups. By improving academic performance, this group would have greater access to higher education and post-grad opportunities which would mitigate the education and income gaps. Altering such a dynamic could change the conversation about race, ethnicity, and education in America, and combat the belief that Hispanic immigrants are a negative presence in the U.S.; while they already make great contributions to the country,
working to improve their performance in the classroom would positively contribute to the conversation of the presence Hispanic immigrants in the U.S.

Conclusion

This study seeks to mitigate the achievement gap between Hispanic immigrants and other ethnic immigrant groups in the U.S. by adopting a psychological approach to improve academic performance. Given that recently (within the past 3 years) immigrated Hispanic adolescents are a niche, and thus face a combination of obstacles specific to their situation such as acculturation, biculturalism, and substance abuse, an intervention focused on addressing these issues is necessary, though missing from the literature. Current programs work to address the academic achievement gap through academic means, such as homework help and study sessions. The current study seeks to compare a psychological approach, an academic approach, and a controlled approach to reveal which will produce the greatest improvement in academic performance among recent Hispanic adolescent immigrants. Academic performance will be measured through GPA, and class engagement. High school graduation rate, a well as psychological well-being, including self-esteem, acculturation, and depression, are also points of interest in this study because of their connections with the academic measures.

The study hypothesized that the psychological condition would see significant improvement in academic performance and psychological wellbeing as compared to the academic and control condition. The academic condition is hypothesized to have insignificant improvement in academic performance and psychological well-being. The control condition is hypothesized to not generate any improvement in academic performance or psychological well-being.
If the findings support these hypotheses, such conclusions could highlight the effect that psychological well-being has on academic performance. The approaches taken to improve academic performance could then be altered to better suit the target population. Finding an effective method to improve academic performance among an underachieving minority group would help to mitigate educational inequality in the U.S., and contribute towards assisting marginalized groups in succeeding in the classroom and beyond.
References


Beer, J. (1992). Depression, self-esteem, suicide ideation, and GPAs of high school students at risk. Psychological Reports, 71(7), 899. doi:10.2466/pr0.71.7.899-902


doi:10.1177/0272684X16628723


doi:10.1080/00223980309600625


doi:10.1037/edu0000111

### Table 1.

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</table>

Chi Square test of independence for sex (fictional data). There are predicted to be no significant differences between groups.
## Table 2

Unweighted and weighted means for each variable in each condition. Parenthesis indicates standard deviation. * indicates significance (p<0.05; if unweighted is significant weighted is also significant).
<table>
<thead>
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</thead>
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<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Not graduate</td>
<td>3*</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 3. Chi Square test of independence for high school graduates among the seniors in each condition (predicted data). Greater number of graduates means higher rate of high school graduation for that condition. * indicates a significant difference between other conditions.
### Table 4. Correlation Matrix.

<table>
<thead>
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<th>Depression</th>
<th>GPA</th>
<th>Class Engagement</th>
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<td>-.68*</td>
<td>.61*</td>
<td>.58*</td>
</tr>
<tr>
<td>Acculturation</td>
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<td>-</td>
<td>-.60*</td>
<td>.40</td>
<td>.30</td>
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<tr>
<td>Depression</td>
<td>-.68*</td>
<td>-.60*</td>
<td>-</td>
<td>.35</td>
<td>.45</td>
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<tr>
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<td>.61*</td>
<td>.40</td>
<td>.35</td>
<td>-</td>
<td>.70</td>
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<tr>
<td>Class</td>
<td>.58*</td>
<td>.30</td>
<td>.45</td>
<td>.70</td>
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*Note:* Predicted correlations (fictional data). * indicates significant at $p<0.05$. 
Figure 2. Academic performance before and after the intervention in psychological, academic, and control condition. Higher bar indicates greater academic performance (composite of GPA and class engagement). Scores for the psychological condition are significantly different from before to after the study as well as significantly different from the academic and control conditions. Significant main effect of time and condition predicted, as well as significant interaction.
Figure 3. Psychological well-being before and after the intervention in psychological, academic, and control condition. Higher bar indicates greater academic performance (composite of GPA and class engagement). Scores for the psychological condition are significantly different from before to after the study as well as significantly different from the academic and control conditions. Significant main effect of time and condition predicted, as well as significant interaction.
Appendix A: Institutional Review Board Proposal

**Title:**
Proposed Intervention to Improve Hispanic Immigrant Adolescents’ Academic Performance

**Research Question (250 words or less):**

The Hispanic population is the second fastest growing immigrant group in the United States. Despite this status, Hispanic immigrant students have the highest high school drop out rate in the US. This low academic achievement is linked with a variety of factors, including acculturation struggles, language barriers, mental health problems, and high rates of substance use. The aim of this study is to improve recent adolescent Hispanic immigrants’ academic performance through psychological and academic approaches. The dependent variable of this study is academic performance, measured by G.P.A., high school completion, and class engagement (teacher reports), and will be recorded before and after the study to note any changes due to the intervention. Psychological baseline measures, including Short Hispanic Acculturation Scale for Youth (SASH-Y), Rosenberg Self-Esteem Scale, and Center for Epidemiological Studies Child Acculturation Scale, will be administered before and after the study to note any possible changes in these measures, which may contribute to the outcome of the dependent variable. This study will last one school year (21 weeks) and will be comprised of three groups: psychological condition, academic condition, and control condition. I will hypothesize that the psychological condition will see the greatest improvement in both academic and psychological measures. The academic condition will have an improvement in academic performance, but only an improvement in self-esteem among the psychological measures. The control condition will not have significant improvement in the academic nor the psychological measures. Results are expected to show that the psychological condition is the most effective in improving academic performance, followed by the academic condition, and then the control condition.

**Procedure**

Each condition will meet two times a week, once in a group comprised of 8-10 students, and once individually with the tutor or social worker. Each condition will take a different approach in an effort to improve academic performance. The psychological approach will address mental and emotional barriers to academic achievement. After the intervention, participants will presumably perform better academically because their psychological stressors have been addressed. The academic condition will more directly aim to improve academic performance through tutoring session and homework help. The participants in the control condition will spend the same amount of time with an adult, but will not have each session tailored to their specific psychological or academic needs.

**How will participants be recruited?**

Participants will be recruited from a high school with a high population of recent Hispanic immigrants (based on school records).
How many individuals?

I will recruit 50 participants in each condition, for a total of 150 participants.

Describe risks and discomfort

Due to the nature of the sessions, topics will arise that may make the participant uncomfortable or may be difficult to talk about. However, sharing is on a voluntary basis, and working through such topics is more valuable than it is uncomfortable.

Consent

Participants will read consent forms and decide with their parent/guardian if they want to join the study. This consent form can be viewed in Appendix A.

Hypotheses

This proposed experiment has three main hypotheses.

- The first hypothesis is that participants in the psychological group will see greater pre-to-post intervention improvement in academic performance and on the psychological measures than the academic and the control condition. This is because the target population has major psychological barriers that impede on academic performance, and thus addressing those barriers would likely help improve academic performance.

- The second hypothesis is participants in the academic condition will have greater pre-to-post intervention academic performance improvement than the control group. The only psychological measure that will improve significantly, however, is self-esteem, which past literature has shown to increase along with an improved G.P.A.

- The third hypothesis is that the participants in the control group will not see significant improvement in neither academic performance nor in the psychological measures.
What is the purpose of this study?

This study is designed to improve academic achievement by measuring the effectiveness of a psychological or academic intervention to achieve the desired result.

What is involved in this study?

Participants, between the ages of 13-17, who immigrated to the U.S. within the past 3 years from a Spanish speaking country (except Spain) and are enrolled in school, will engage in an intervention 2x a week for one school year. Participants’ academic achievement will be measured through GPA, high school completion, and class engagement teacher reports. Participants will take psychological tests, such as Short Acculturation Scale for Hispanic Youth (SASH-Y), Rosenberg Self-Esteem Scale, and Child Depression Inventory, before and after the intervention to measure any possible changes in these areas as well. Socioeconomic status will also be taken from the student's file at school.

What are the risks of this study?

The study may bring up traumatic or stressful life events for the participants, however students are not required to share anything they do not choose to share.

Statement of consent

By signing below, you are indicating that you provide informed consent for your child(ren) to participate in this study.

"The purpose of this study, procedures to be followed, risks and benefits have been explained to me. I have been given an opportunity to ask questions, and my questions have been answered to my satisfaction. I have been told whom to contact if I have additional questions. I have read this consent form and agree to be in this study, with the understanding that I may withdraw at any time."

Name of Participant(s): __________________________________________________________

Parent Signature here: __________________________________________________________
## Class Engagement Teacher Report

**Student Name:**

**Subject:**

**Date:**

1. In my class, this student works as hard as he/she can.

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2. When working on classwork in my class, this student appears involved.

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3. When I explain new material, this student listens carefully.

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4. In my class, this student does more than required.

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<td>No comment</td>
<td>Agree</td>
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5. When this student doesn’t do well, he/she works harder.

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<td>Agree</td>
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</table>

6. When we start something new in class, this student thinks about other things.
1. In my class, this student comes unprepared.
2. When faced with a difficult assignment, this student doesn’t even try.
3. In my class, this student does just enough to get by.
4. When we start something new in class, this student doesn't pay attention.

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*Note.* Adapted from Wellborn (1991) and Skinner, Kinderman, & Furrer (in press).
Appendix D: Short Acculturation Scale for Hispanic Youth (Adapted)

Name:

1. What languages do you read and speak?

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<tr>
<td></td>
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<td>Better Than English</td>
<td>Both Equally</td>
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</tbody>
</table>

2. What languages do your parents speak to you in?

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<td>Only English</td>
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3. What languages do you usually speak at home?

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<td>Both Equally</td>
<td>More English Than Spanish</td>
<td>Only English</td>
</tr>
</tbody>
</table>

4. In which language(s) do you usually speak?

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<td>Both Equally</td>
<td>More English Than Spanish</td>
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</table>

5. What languages do you usually speak with your friends?

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<td>Only Spanish</td>
<td>More Spanish Than English</td>
<td>Both Equally</td>
<td>More English Than Spanish</td>
<td>Only English</td>
</tr>
</tbody>
</table>

6. In what languages are the T.V. programs you usually watch?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Only Spanish</td>
<td>More Spanish Than English</td>
<td>Both Equally</td>
<td>More English Than Spanish</td>
<td>Only English</td>
</tr>
</tbody>
</table>
7. In what languages is the music you usually listen to?

1  2  3  4  5

Only Spanish  More Spanish  Both Equally  More English  Only English
Spanish Than English  Than Spanish

8. In what languages are the movies, T.V. and music you prefer to watch or listen to?

1  2  3  4  5

Only Spanish  More Spanish  Both Equally  More English  Only English
Spanish Than English  Than Spanish

9. In what languages do your parents speak with their parents?

1  2  3  4  5

Only Spanish  More Spanish  Both Equally  More English  Only English
Spanish Than English  Than Spanish

10. Your close friends are:

1  2  3  4  5

All Hispanic  More Hispanic  About Half  More White  All White
Than White  And Half  Than Hispanic

11. You prefer going to parties or hangs outs at which people are:

1  2  3  4  5

All Hispanic  More Hispanic  About Half  More White  All White
Than White  And Half  Than Hispanic

12. The persons you visit or who visit you are:
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Hispanic</td>
<td>More Hispanic</td>
<td>About Half</td>
<td>More White</td>
<td>All White</td>
</tr>
<tr>
<td></td>
<td>Than White</td>
<td>Than White</td>
<td>And Half</td>
<td>Than Hispanic</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix E: Center for Epidemiological Studies Depression Scale for Children (CES-DC)

**INSTRUCTIONS**
Below is a list of the ways you might have felt or acted. Please check how much you have felt this way during the past week.

<table>
<thead>
<tr>
<th>DURING THE PAST WEEK</th>
<th>Not At All</th>
<th>A Little</th>
<th>Some</th>
<th>A Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I was bothered by things that usually don’t bother me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I did not feel like eating. I wasn’t very hungry.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I wasn’t able to feel happy, even when my family or friends tried to help me feel better.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I felt like I was just as good as other kids.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I felt like I couldn’t pay attention to what I was doing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I felt down and unhappy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I felt like I was too tired to do things.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I felt like something good was going to happen.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I felt like things I did before didn’t work out right.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I felt scared.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I didn’t sleep as well as I usually sleep.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I was happy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I was more quiet than usual.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I felt lonely, like I didn’t have any friends.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. I felt like kids I know were not friendly or that they didn’t want to be with me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. I had a good time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. I felt like crying.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. I felt sad.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. I felt people didn’t like me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. It was hard to get started doing things.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name: 
Date: 
Score: 

Appendix F: Rosenberg Self Esteem Scale

Instructions

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

1. On the whole, I am satisfied with myself.
   Strongly Agree  Agree  Disagree  Strongly Disagree

2. At times I think I am no good at all.
   Strongly Agree  Agree  Disagree  Strongly Disagree

3. I feel that I have a number of good qualities.
   Strongly Agree  Agree  Disagree  Strongly Disagree

4. I am able to do things as well as most other people.
   Strongly Agree  Agree  Disagree  Strongly Disagree

5. I feel I do not have much to be proud of.
   Strongly Agree  Agree  Disagree  Strongly Disagree

6. I certainly feel useless at times.
   Strongly Agree  Agree  Disagree  Strongly Disagree

7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself.

Strongly Agree    Agree    Disagree    Strongly Disagree

9. All in all, I am inclined to feel that I am a failure

Strongly Agree    Agree    Disagree    Strongly Disagree

10. I take a positive attitude toward myself.

Strongly Agree    Agree    Disagree    Strongly Disagree
### Appendix G: Psychological Condition Weekly Outline

<table>
<thead>
<tr>
<th>Week</th>
<th>Objectives</th>
<th>Materials</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intro (Name, grade) Rules Expectations Goals (study’s goals and personal goals)</td>
<td>• White board • Dry Erase Marker</td>
<td>Collaborate rules/expectations for group (Have scribe write on whiteboards) Attendance Participation Judgment Free Confidentiality Discuss goals Improve GPA Address issues related to being a Hispanic immigrant Promote peer relations</td>
</tr>
<tr>
<td>2</td>
<td>Reflection and Goal Setting</td>
<td>Teacher responses</td>
<td>Hand out teacher responses Reflect: Participants write down 2 things they are doing well 2 ways they can improve in the classroom (share voluntarily)</td>
</tr>
<tr>
<td>3</td>
<td>Promoting Resiliency</td>
<td>White boards Dry Erase markers</td>
<td>Collaborate on working definition for resiliency Scribe writes key words on board Students create individual time lines: Up until now, times student faced obstacle and overcame Skills implemented to achieve such success?</td>
</tr>
<tr>
<td>No.</td>
<td>Topic</td>
<td>Materials</td>
<td>Details</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------------</td>
<td>----------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>4</td>
<td>Promoting Resiliency (II)</td>
<td>White boards, Dry erase markers</td>
<td>How can students use these skills with personal goals in the classroom</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>One New Insight</td>
</tr>
<tr>
<td>5</td>
<td>No Meeting</td>
<td></td>
<td>Review definition of resiliency</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Participants brainstorm what causes stress</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Each student creates 3 column chart:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I HAVE/I AM/I CAN resilience factors:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I HAVE: resources outside student</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I AM: students’ feelings, beliefs, strengths</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I CAN: tools and skills to overcome (participants voluntarily share)</td>
</tr>
<tr>
<td>6</td>
<td>Combating Discrimination and Stereotype threat</td>
<td>Stories of Einstein struggling in school</td>
<td>Values Affirmation Scale</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Stress Malleability of Intelligence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Narratives of Albert Einstein struggling intellectually</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Discuss changing internal narrative (work hard vs. just not good at math)</td>
</tr>
<tr>
<td>7</td>
<td>No Meeting</td>
<td></td>
<td>One New Insight</td>
</tr>
</tbody>
</table>
| 8   | Balancing Biculturalism  
Strengthening Ethnic ID | White boards, Dry Erase Markers | Venn Diagram                                                           |
|     |                                            |                                  | • Country of origin                                                     |
|     |                                            |                                  | • U.S.                                                                  |
|     |                                            |                                  | Stress similarities                                                    |
|     |                                            |                                  | Collaborate ways to celebrate differences                              |
|     |                                            |                                  | One New Insight                                                        |
| 9   | No Meeting                                 |                                  | Recall stressful event due to acculturation/acculturation gap (in pairs) |
| 10  | Managing Acculturation and Family Conflict |                                  |                                                                        |
Develop skills to cope with this:
- Create Individual Fear hierarchies (CBT inspired)
- Address things with family that is least intimidating (going to friends house vs. dating)

**One New Insight**

<table>
<thead>
<tr>
<th></th>
<th>No Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td><strong>Peer Network Counseling</strong></td>
</tr>
<tr>
<td>12</td>
<td>Follow PNC model:</td>
</tr>
<tr>
<td></td>
<td>• Stress importance of peer network school, future goals, etc.</td>
</tr>
<tr>
<td></td>
<td>• Participants make own diagram of themselves and their peer networks</td>
</tr>
<tr>
<td></td>
<td>• Reflect on +/- influence</td>
</tr>
<tr>
<td></td>
<td>• Social worker and peers brainstorm small modifications (amount of time spent with specific person, or at specific place, or time of day)</td>
</tr>
</tbody>
</table>

**One new insight**

<table>
<thead>
<tr>
<th></th>
<th>No Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td><strong>Managing Peer network to raise Self-Esteem</strong></td>
</tr>
<tr>
<td>14</td>
<td>Review possible negative influences from current peer network</td>
</tr>
<tr>
<td></td>
<td>To resist negative influences:</td>
</tr>
<tr>
<td></td>
<td>• Focus on self-concept: What each participant thinks of themselves (less susceptible to peer influence)</td>
</tr>
</tbody>
</table>
- Self-esteem raising activities (values affirmation scale, everyone in group write anon compliment to everyone else, etc.)

**One New Insight**

<table>
<thead>
<tr>
<th>15</th>
<th>No Meeting</th>
</tr>
</thead>
</table>
| 16 | Substance Abuse prevention and reduction | White boards<br>Dry erase markers | Write down:  
- Academic and personal goals (get better at soccer, better grade in science)  
**Brainstown:**  
- Avoid/reduce risky behaviors (avoid person who is bad influence, don’t hang out at certain places, etc)  
- PNC  
**One new insight**

<table>
<thead>
<tr>
<th>17</th>
<th>No Meeting</th>
</tr>
</thead>
</table>
| 18 | Anxiety | White Boards<br>Dry Erase Markers | Recall times felt anxious, dreaded an event (CBT):  
- How did you handle it?  
- How could you handle it better? (coping strategies/relaxation techniques → step away, breathing exercise, replacing negative thoughts)  
**One New Insight**

| 19 | No Meeting |
| 20 | Depression and/or sadness | White Boards, Dry Erase Markers | Brainstorm instances and feelings of sadness  
  
  • CBT: Based on techniques previously developed, discuss ways to address such issues (step away, breathing exercises, eliminate negative automated thoughts) |
| 21 | Recap and Relapse Prevention | Social Worker will give students information of permanent school social worker, community programs |
| 22 | Retake Measures: Acculturation, Self-Esteem, Depression | Students meet to retake measure they took before intervention  
  
  • Rosenberg Self Esteem Scale  
  • Short Acculturation Scale for Hispanic Youth  
  • Center for Epidemiological Studies Depression Scale |
Appendix H: Time Line Example

Moving to a new country, not having any friends

Intervention
Appendix I: Resiliency Activity

“I HAVE/I AM/I CAN” Example

<table>
<thead>
<tr>
<th>I HAVE</th>
<th>I AM</th>
<th>I CAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends</td>
<td>A hard worker</td>
<td>Problem solve</td>
</tr>
<tr>
<td>Family</td>
<td>Responsible</td>
<td>Communicate</td>
</tr>
<tr>
<td>Soccer team</td>
<td>Caring</td>
<td>Write well</td>
</tr>
</tbody>
</table>
Appendix J: Values Affirmation Scale Example

<table>
<thead>
<tr>
<th>Interpersonal/Personal values (non-academic values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Being a good listener</td>
</tr>
<tr>
<td>• Adventurous</td>
</tr>
<tr>
<td>• Helping my family with cooking</td>
</tr>
<tr>
<td>• Taking care of my sister</td>
</tr>
<tr>
<td>• Giving advice to my friends</td>
</tr>
<tr>
<td>• Getting a good gift for someone</td>
</tr>
</tbody>
</table>
Appendix K: Albert Einstein narrative

IS IT TRUE THAT EINSTEIN WAS A LOUSY STUDENT?

In some ways, yes. When he was very young, Einstein’s parents worried that he had a learning disability because he was very slow to learn to talk. (He also avoided other children and had extraordinary temper tantrums.) When he started school, he did very well—he was a creative and persistent problem-solver—but he hated the rote, disciplined style of the teachers at his Munich school, and he dropped out when he was 15. Then, when he took the entrance examination for a polytechnic school in Zurich, he flunked. (He passed the math part, but failed the botany, zoology and language sections.) Einstein kept studying and was admitted to the polytechnic institute the following year, but even then he continued to struggle: His professors thought that he was smart but much too pleased with himself, and some doubted that he would graduate. He did, but not by much—which is how the young physicist found himself working in the Swiss Patent Office instead of at a school or university.
Appendix L: Bicultural Venn Diagram Example
Appendix M: Peer Network Counseling Example

(larger circles indicate more time with that person or at that place)
## Appendix N: Academic Condition Weekly Outline

<table>
<thead>
<tr>
<th>Week</th>
<th>Objectives</th>
<th>Materials</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intro (name, grade) &lt;br&gt; Rules &lt;br&gt; Expectations &lt;br&gt; Goals of the study</td>
<td>White board &lt;br&gt; Dry erase marker</td>
<td>Collaborate rules/expectations for group (Have scribe write on whiteboards) &lt;br&gt; Attendance &lt;br&gt; Hard work &lt;br&gt; Judgment Free &lt;br&gt; Confidentiality &lt;br&gt; Discuss goals &lt;br&gt; Improve GPA</td>
</tr>
<tr>
<td>2</td>
<td>Time Management II</td>
<td>Paper &lt;br&gt; Pen &lt;br&gt; Work from previous week</td>
<td>Define Time Management &lt;br&gt; Participants write down: &lt;br&gt;  - Monthly calendar of assignments and events &lt;br&gt;  - Establish Goals and plan to achieve (when/where will you do homework?) &lt;br&gt;  - Daily/weekly to do lists</td>
</tr>
<tr>
<td>3</td>
<td>Time Management II</td>
<td>Paper &lt;br&gt; Pen &lt;br&gt; Work from previous week</td>
<td>Continue working on last week’s project (calendar, goals, etc)</td>
</tr>
<tr>
<td>4</td>
<td>Study Skills</td>
<td>Quiz: What type of learner are you?</td>
<td>Record type of learner &lt;br&gt; Ways each participant should study (flashcards, movement, read aloud, etc) &lt;br&gt; Plan for quiet hour (and discuss benefits)</td>
</tr>
<tr>
<td>5-20</td>
<td>Homework Help</td>
<td>Student should bring weekly/daily to do list</td>
<td>Tutor will help students with homework and assignments they bring to the session</td>
</tr>
<tr>
<td>21</td>
<td>Recap and Relapse Prevention</td>
<td></td>
<td>Tutor will give students information of the school social worker, after school homework help, and community programs</td>
</tr>
<tr>
<td>22</td>
<td>Retake Measures: &lt;br&gt; Acculturation Self-Esteem</td>
<td>Copies of Measures</td>
<td>Students meet to retake measure they took before intervention &lt;br&gt;  - Rosenberg Self Esteem Scale</td>
</tr>
</tbody>
</table>
What Type of Learner Are You?

Goal: Determine how you learn best so you can find more effective ways to study.

Directions: Circle the best answer for each question.

1. If I have to learn how to do something, I learn best when I:
   a. Watch someone show me how.
   b. Hear someone tell me how.
   c. Try to do it myself.

2. When I spell, I verify accuracy by:
   a. Looking at the word to see if it looks correct.
   b. Sounding the word out in my head.
   c. Getting a feeling about the correctness of the spelling.

3. When asked to give directions, I:
   a. See the actual places in my mind as I say them or prefer to draw them.
   b. Have no difficulty giving them verbally.
   c. Have to point or move my body as I give them.

4. When I have to remember a list of items, I remember them best if I:
   a. Write them down.
   b. Repeat them over and over to myself.
   c. Move around and use my fingers to name each item.

5. When solving a problem, I:
   a. Write or draw diagrams to see it.
   b. Talk myself through it.
   c. Use and/or move objects to help me think.

6. When I am adding numbers, I verify my answer by:
   a. Looking at the numbers to see if they are correct.
   b. Counting the numbers in my head or out loud.
   c. Using my fingers to get a feeling if it is correct.

7. When trying to recall names, I remember:
   a. Faces more easily than names.
   b. Names more easily than faces.
   c. The situation or the meeting more easily than names or faces.
8. Before going to sleep at night, I appreciate that:
   a. The room is dark.
   b. The room is quiet.
   c. The bed feels comfortable.

Results: Write in how many of your answers was each of the following letter choices:
   a:______  b:______  c:______

Now what? Look at the letter you scored the most responses in. Read and try some of the methods listed under the corresponding learning style. Read through the methods listed under the other learning styles as well! Try anything you think might work for you because we are a blend of each of these styles, just to different severities!

Interpretation:
If you had mostly a’s, then you are a visual learner.
   - Sit in the front of the class or meeting so you can see everything.
   - Sketch course content. Even the simplest sketch can help you remember ideas.
   - List your tasks – even the ones you have completed – just to have the satisfaction of visually crossing out tasks done.
   - Write notes on your favorite colored sticky-notes to help you remember and paste them around your room.
   - An uncluttered desk may help in clearing your mind to be able to study better.
   - Write yourself encouraging notes and post them where you can see them.
   - Create mind maps, flowcharts, or other graphic organizers.

If you had mostly b’s, then you are an auditory learner.
   - Tape record the class session and listen to your tape later for reference and repetition. It may also help if you listen to it casually while walking to class or before falling asleep.
   - Read your textbook and notes aloud as you study. You could even record them as you do so.
   - Teach yourself to read aloud in your mind without making sound. During exams, you can hear the test questions as well as see them.
   - Study with a partner or in a group. When studying with others, you can hear what they say, and hear yourself teaching them as well. This will reinforce your understanding of the material.
   - Proofread your assignments out loud.

If you had mostly c’s, then you are a tactile/kinesthetic learner.
   - Sit where you can actively participate in classroom events and discussions.
   - Take notes creatively. For instance, draw quick pictures in class that relates to the material being taught.
   - Ask and answer questions before, during, and after class.
   - Make models of the concepts whenever possible.
   - Move around while you are studying. For instance, you can simply walk around in your room.
   - Study on a whiteboard. Draw flowcharts, mind maps, or simply rewrite the notes.
   - Incorporate pictures of models, if possible.
Make physical comfort a priority as you study.  
Make note cards and create sample tests that you can take for review.

**Study Tips for the Visual Learner**  
Visual learners tend to learn information by seeing, whether through reading or watching. Reading textbooks, material on the board or on overhead projectors, as well as demonstrations and diagrams are helpful. The following list contains strategies for Visual learners.

- Write things down because you remember them better that way.
- Make study area visually appealing.
- Look at people and professors when they talk. This technique will help you stay focused.
- Most visual learners study better by themselves.
- Take thorough notes in lectures and when studying textbooks. Review and revise notes after class, preferably immediately after class while you still remember a good deal of the lecture, to reinforce your knowledge.
- Read assignments in 25 minute intervals (you lose 85% of your input after reading for 25 minutes).
- When beginning a textbook chapter, read the chapter overview and summary first to get a general idea of the information. Then begin reading.
- Underline main points in an eye-arresting color – for example, neon highlighters.
- After 25 minutes, take a one-to-five minute break. Disconnect totally from your reading (walk around the room, stretch, look out the window, snack, restroom break, whatever is comfortable for you).
- Review your underlined/highlighted material after your break.
- Read for another 25 minutes, take a 1-to-5 minute break, and review underlined material.
- Just before closing your book, review all underlined material read that day to reinforce your learning.
- Write new vocabulary words on colored index cards (or write in color on white index cards) with short definitions on the back. Carry these with you and review them at odd moments or whenever you have spare time – for example, before class or when waiting in line.

**Study Tips for the Auditory Learner**  
Auditory learners benefit from listening – hearing the information and processing it accordingly. Auditory learners focus easily on sounds and have good memory of what they have heard through lectures or tape. The following hints are useful for Auditory learners.

- Try studying with a friend so that you can talk out loud and hear the information.
- Recite out loud the things you want to remember.
- Tape your lectures and review your notes while listening to your tape. This gives a double auditory input. Transfer your notes to index cards that you can carry with you and review aloud.
- Read an assignment for 25 minutes (no more – you lose 85% of your input after the first 25 minutes). When beginning a textbook chapter, read the summary to
get a general idea of the information. Then begin the reading. (You might even try reading aloud).
- Underline main points in an eye-arresting color – for example, neon highlighters.
- After 25 minutes, take a one-to-five minute break. Disconnect totally from your reading – exercise, snack, relax – whatever is comfortable for you.
- Review aloud all underlined materials. If you take notes in addition to underlining the book, read your notes aloud as well.
- Read for another 25 minutes and underline.
- Take a 1-to-5 minute break.
- Review aloud from beginning of underlined material. Repeat.

**Study Tips for the Tactile/Kinesthetic Learner**

Tactile learners acquire knowledge best through manipulation – doing, touching, hands-on, and writing techniques. Primary Tactile learners would benefit from finding their secondary learning mode and use the directions for either Visual or Auditory in conjunction with the following hints.
- Write things down because you remember them better that way.
- Try studying with a friend so that you can talk out loud and hear the information.
- When memorizing, pace or walk around while reciting to yourself or looking at a note card, and also try writing the information on a desk with your finger.
- Keep something in your hand that is malleable. Knead or tap to a rhythm as you study. As much as you can, translate what you are learning into something that can be touched. Typing is helpful, as is writing your notes. If possible, type your notes on index cards. Eating, drinking, chewing gum, and listening to music are also helpful.
- Read an assignment for 25 minutes (no more – you lose 85% of your input after the first 25 minutes). When beginning a textbook chapter, read the summary to get a general idea of the information. Then begin the reading.
- Underline main points in an eye-arresting color – for example, neon highlighters.
- After 25 minutes, take a one-to-five minute break. Disconnect totally from your reading – exercise, snack, relax – whatever is comfortable for you.
- Review all underlined materials after your break. *If auditory is your secondary preference, review aloud all underlined materials.*
- Read for another 25 minutes and underline.
- Take a 1-to-5 minute break.
  Review aloud from beginning of underlined material.
Appendix P: Certificate of Completion

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that Samantha Lagville-Graham successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 03/30/2017.

Certification Number: 2364772.
Appendix Q: Budget Proposal

<table>
<thead>
<tr>
<th>Expense Type</th>
<th>Cost per Person</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutor Salary</td>
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<td>$60,000.00</td>
</tr>
<tr>
<td>Social Worker Salary</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$60,000.00</strong></td>
<td><strong>$120,000.00</strong></td>
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