**Latinos: Higher Education Intervention**

**Samantha Benavidez**  
South Texas College, United States of America

**Sylvia L. Flores**  
South Texas College, United States of America, slflores@southtexascollege.edu

**Jose Garza**  
South Texas College, United States of America

**Gina Hudson**  
South Texas College, United States of America

**Rebecca Ybarra Leal**  
South Texas College, United States of America

**Jessica Morales**  
South Texas College, United States of America

**Abigail Ramos**  
South Texas College, United States of America

**Vanessa Munoz**  
South Texas College, United States of America

**Abstract:** This paper will include details on knowledge and ambition levels found between Latino-ethnic K-5 students located in a Southern Region of Texas from a college going culture presentation. The purpose is to understand how ambition and knowledge about higher education was influenced among Latino-ethnic K-5 students in impoverished areas. A low-income public school located in South Texas was included in this study. An open-ended questionnaire was provided to 26 teachers. 511 students were targeted for a presentation with information about college, universities, degrees, careers, and income facts. Teachers documented ambition levels before and after students received a college-going presentation. Wilcoxon signed-rank test was used to analyze the responses for 10 pre and post surveys. Findings indicate ambition and knowledge was increased with a higher education presentation among Latino-ethnic K-5 students in highly impoverished areas. Recommendations were made to continue to research the Latino-ethnic impoverished population and variables that influence higher education success rates. Results, discussion, limitations, and future recommendations were elaborated on.

**Keywords:** Latinos, higher education, K-5

**Introduction**

**Latinos and Higher Education Intervention**

Low-income schools, with many students being of Latino-ethnic descents, face many disadvantages especially when it comes to achieving a higher education (Welton & Williams, 2015). The purpose of this comparison study is to understand if there is a correlational difference in higher education ambition among Latino-ethnic students in K-5 grade levels before and after higher education presentations. Several researchers have concluded
the need to serve Latino-ethnic students to increase the higher education rates (Franco & Hernandez, 2018; Ortiz & Tajalli, 2018). Ortiz and Tajalli (2018) found Texas institutions have mad outreach initiatives in an attempt to increase higher education enrollment among the Latino-ethnic population. Although, the enrollments rates did not decrease, the rates did not increase either. Franco and Hernandez (2018) found a need to incorporate an institutional approach to understand the climate and needs for the Latino-ethnic population in order to increase their success rates in higher education. This research study needs to consider many factors, such as the main disadvantages low-income schools face such as the lack of resources available to the students (Hicks, Linderman, & Strumbos, 2018). Additionally, motivation is an important factor to study because motivation encourages participation (Imbrisca & Romania, 2020). Currently, researchers have focused on other approaches that increase ambition levels to attain a higher education in K-5 students (Acosta & Acosta, 2017; Botchwey & Hunter, 2017; Dotson, LaBadie, & Overbey, 2018). Past attempts to increase higher education rates typically focused on connecting elementary students with colleges and universities through projects (Botchwey & Hunter, 2017; Dotson, LaBadie, & Overbey, 2018). Lastly, because electronic presentations have been found to increase knowledge (Ferreira, Santos, Serpa, 2018), this factor must be considered for this study as well. Due to the Latino-ethnic students being at a disadvantage when it comes to achieving higher education success rates (Welton & Williams, 2015), a pre-survey and post-survey was used to gather data to understand the dynamics involved that may prevent students from attaining a college-going culture. To understand the differences in low-income schools and ambition for attaining a higher education by K-5 Latino-ethnic students, the researchers used conflict theory to explain the variables and the effects.

**Literature Review**

The purpose of this comparison study is to understand if there is a difference in higher education ambition among Latino-ethnic students K-5 grade levels before and after higher education presentations. It is important to examine a “college-going” culture in minority groups who have high poverty levels (Welton & Williams, 2015; Ostrander, 2015). Ostrander (2015) found unequal and low levels of educational opportunities for minority children. Welton & Williams (2015) reveal that scholars indicate significantly higher dropout rates in schools with large minority groups and schools with high poverty rates. These data indicate the importance in understanding influential variables for impoverished minority groups and higher education ambition. Researchers have suggested there are educational institutions that are not organized to support students in achieving academic success due to inadequate college advisement (Hicks, Linderman, & Strumbos, 2018).

Franco and Hernandez (2018) go on to explain low success rates in higher education among Latino-ethnic students is an institutional issue. The institution must take on an initiative to understand the climate in Hispanic Serving Institutions, involve appropriate departments such as Institutional Research departments, and continue a methodological approach to understand barriers for Latino-ethnic students on a continuous basis. These data indicate the importance of understanding influential variables in the higher education institution. Other research findings indicate an increase in enrollment in the Hispanic population (Ortiz & Tajalli, 2018). However, the Hispanic graduation rate did not rise with it. Indicating a need to variables that play a role in graduation rates among the Hispanic population: Motivation is a factor that is increased through being involved (Bucur, Maiorescu, Sabou, & Zota, 2020; Imbrisca & Romania, 2020; Shelley & Purzer, 2018). Specifically, Bucur et al. (2020) found students in higher education were most likely motivated to get involved in projects in higher educational institutions related to gaining experience and projects that add value to their curriculum vitae.

Imbrisca and Romania (2020) also contribute the development of higher education through getting students involved in social responsibilities activities, which increase motivation. In other words, the personal values of students in higher education increased their motivation and in turn sustained the higher education institutions through their involvement. Furthermore, researchers have linked good academic advising to the success and motivation of students, that increase chances of graduating (Donaldson, Lee, McKinney, & Pino, 2016; Garcia & Hatch, 2018). Garcia and Hatch (2018) show a variety of research data that emphasized critical advisement procedures and the link of advisement to student persistence and ambition to attain a college degree. Past researchers focused on increasing higher education ambition have focused on connecting universities to elementary students through projects (Botchwey & Hunter, 2017; Dotson, LaBadie, & Overbey, 2018; Namyssova, 2019).

Some researchers focused on curriculum based assessments of readiness levels for higher education attainment (Acosta & Acosta, 2017). Kirk and Watt (2018) found that social and cultural networks are successful factors...
among Mexican ethnic students who graduate. Regardless of the different approaches taken to understand the factors involved to better support the Latino-ethnic student in higher education to graduate, a need to understand these factors still is evident (Franco & Hernandez, 2018; Ortiz & Tajalli, 2018). It is important to further understand the different factors that play a role on higher education success rates among the Latino-ethnic K-5 students (Welton & Williams, 2015). In addition, in this study the higher education ambition level among K-5 Latino-ethnic impoverished students will be explained through conflict theoretical perspective.

Conflict Theory

Conflict theory, as explained by Karl Marx, is a concept in which society lies predominantly under relentless conflict regarding the inequality of resources among its contrasting social classes (Henslin, 2015). Conflict theorists would proceed to express interconnecting rationalities between students attending affluent and highly impoverished schools by identifying their contrasting knowledge of essential guidance concerning post-secondary education (Henslin, 2015). As a result, such opportunities remain beneficial for the advancement of students attending affluent schools; diametrically opposed to students attending impoverished schools under oppressed circumstances (Henslin, 2015). In this study, conflict theorists would consider students from lower class as the proletariats. The barriers proletariats receive that are supported by institutions would serve to keep the lower class status. The capitalists would proceed to receive resources and education from elite educational institutions. These differences would support the conflict between the two groups competing for scarce resources, that maintain the elite group in power. Although both aspects of symbolic interaction theory and functional theory explain a student’s post-secondary educative progress or regression, these theories refrain from explaining the dynamics involved in this study as well as conflict theory.

Method

Research Design

The Wilcoxon test was the best test for this research study. A pre-and post-survey were administered to teachers to gather data on the differences before and after the presentations provided to students between K-5 grade levels. The Wilcoxon’s test determined the difference between the pre- and post-survey differences in student’s ambition to go to college, attain a college degree, and knowledge of college and degrees. Reliability and validity were determined by allowing a survey research facilitator to create the survey questions and a curriculum and instructional doctorate also double checked the survey questions. Demographic items determined, average income, grade levels, enrollment rates, and attendance. Participants included elementary students attending Kinder to 4th grade. These students were from an elementary school that serviced an impoverished area, and who were primarily of the Latino-ethnic background.

Population and Sample

The population for this study was selected from a southern region of Texas. Three elementary schools servicing highly impoverished and Latino-ethnic areas were identified on the school districts website. These three sites were contacted, via their principal, and invited to participated in the study. Only one site responded and participated in this research study. These sites were appropriate since the resources are limited to impoverished areas (Tanno, 2003). The purpose of this comparison study is to understand if there is a correlation difference in higher education ambition among Latino-ethnic students in K-5 grade levels. A convenient sample was retrieved from the targeted sites contacted.

Based on a g-power analysis for a t-test matched pairs sample targeted, at least 45 teachers were needed to run a t-test analysis. Being that a convenient sample was accessible only 26 teachers were available to participate from the only site willing to participate. A consent form, pre-survey, and posts-survey were provided to all 26 teachers available in the only site willing to participate. Only 13 surveys were retrieved after presentations were provided to all students available at the participating site. This convenient sample included students from Kinder to 4th grade. One teacher from Kinder, one teacher from 1st grade, two teachers from 2nd grade, two teachers from 3rd grade, and four teachers from 4th grade. Three pre-surveys and post-surveys were excluded due to lack of information. After cleaning the data, the sample provided included 10 classrooms which provided usable
surveys, 4th grade level classrooms accounted for the highest level of response rate, kinder and 1st grade level classrooms accounted for the lowest response rates, classrooms typically had 17 and 20 students enrolled, and classrooms typically had 17 students present.

Materials/Instruments

A survey was created to collect demographic information, ambition, knowledge about college and degrees, and careers. Questions were open ended to gather unique responses as they arose from Kinder to 5th graders. A survey research facilitator created the questions to measure the outcomes related to the hypothesis. In addition, a curriculum and instructions Doctorate reviewed the questions to double check the survey questions measured the hypothesis question and were feasible questions for the grade levels targeted. Responses could be tallied for ordinal entry to run a Wilcoxon signed-rank test. The significance level was set at p<.05 level. Please see appendix A.

Data Collection and Processes

A survey was created to collect demographic information, ambition, knowledge about college and degrees, and careers. Questions were open ended to gather unique responses as they arose from Kinder to 5th graders. A survey research facilitator created the questions to measure the outcomes related to the hypothesis. In addition, a curriculum and instructions Doctorate reviewed the questions to double check the survey questions measured the hypothesis question and were feasible questions for the grade levels targeted. Responses could be tallied for ordinal entry to run a Wilcoxon signed-rank test. The significance level was set at p<.05 level.

Results

The influential higher education ambitions among Latino-ethnic students in K-4 grade levels were analyzed as such. The data gathered for college, associate’s degree, bachelor’s degree, master’s degree, and doctorate’s degree attainment were measured for the pre-survey to compare to the post-survey. The pre-survey and post-survey differences were measured as dependent variables and the presentation provided to students from K-5 students represented the independent variable. Since there was a small sample size the Wilcoxon Signed-Rank Test was used to analyze the data.

The p-value was set at p<.05. Results indicated for K-4 students, since 5th grade level data was not retrieved, ambition levels to go to college were significantly higher after (Md=15.50) the Higher Education Intervention presentation than before (Md=13.50), z=-2.05, p<.05, r=-0.46. This indicated a medium effect size (r=-0.46, which is above the .3 criterion that met a medium effect size standard) for college ambition after the K-5 Higher Education Intervention presentation was provided. In addition, results indicated for K-4 students, having no knowledge about a bachelor’s degree were significantly lower after (Md=2.5) the Higher Education Intervention presentation than before (Md=7), z=-2.81, p<.05, r=-0.63. This indicated a huge effect size (r=-0.63, which is above the .5 criterion that met a large effect size standard) for no knowledge about a bachelor’s degree after the K-5 Higher Education Intervention presentation was provided.

Furthermore, Table 1 shows results indicated for K-4 students, having no knowledge about a Master’s degree were significantly lower after (Md=2.0) the Higher Education Intervention presentation than before (Md=10), z=-2.43, p<.05, r=-0.54. This indicated a huge effect size (r=-0.54, which is above the .5 criterion that met a large effect size standard) for no knowledge about a Master’s degree after the K-5 Higher Education Intervention presentation was provided. In addition, results indicated for K-4 students, ambition levels to attain a doctorate degree were significantly higher after (Md=9) the Higher Education Intervention presentation than before (Md=5), z=-1.96, p<.05, r=-0.44.

This indicated a medium effect size (r=-0.44, which is above the .3 criterion that met a medium effect size standard) for a doctorate attainment ambition after the K-5 Higher Education Intervention presentation provided. Moreover, results indicated for K-4 students, having no knowledge about a doctorate’s degree were significantly lower after (Md=1.5) the Higher Education Intervention presentation than before (Md=8), z=-2.66, p<.05, r=-0.59. This indicated a huge effect size (r=-0.59, which is above the .5 criterion that met a large effect size standard)
standard) for no knowledge about a doctorate’s degree after the K-5 Higher Education Intervention presentation provided. Type I error is when a researcher fails to reject the null hypothesis when it should be rejected and Type II error is when the null hypothesis is rejected but shouldn’t have been (Creswell, 2009). Setting the p-value at .05 was set to address this issue. Since the sample size is small, n=20 for both the pre-survey and post-survey the data was skewed, this led to limited inferences to the population. However, the data provided insight otherwise not known about this convenient sample.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
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<tr>
<td>Negative Ranks</td>
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<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Positive Ranks</td>
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<td>5.38</td>
<td>43.00</td>
</tr>
<tr>
<td>Ties</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Z = 2.43
Asymp.Sig.(2-tailed) = .015

College, Associates, Bachelors, Masters, Doctorates, and Careers

The results for the Wilcoxon Signed-Rank Test yielded significant results for the data collected from the sample. Data indicated students had higher ambition to attend college and attain a doctorate’s degree after a K-5 Higher Education Intervention presentation. Also, data indicated knowledge about a bachelor’s degree, master’s degree, and doctorate’s degree increased after the K-5 Higher Education Intervention presentation. Effect size was larger in the knowledge gained through the K-5 Higher Education Intervention presentation compared to the medium effect size on ambition to attend college and attain a doctorate’s degree. Differences were noted in the pre-surveys and post-surveys in careers mentioned by K-4 students. Careers in the pre-survey mentioned included fourteen students who wanted to be a doctors compared to thirteen in the post-survey. Police officers were sought out as a career by thirteen students in the pre-survey and twenty-one students on the post-survey. Eleven students chose teaching as a career in the pre-survey and fourteen students chose teaching as a career in the post-survey. Ten students chose being a veterinarian as a career in the pre-survey and nine students chose being a veterinarian in the post-survey. Eight students chose being a soldier as a career in the pre-survey and six students chose being a soldier as a career in the post-survey. After our presentation and introduction to some careers such as FBI agent, professor, principal, and others, students’ ambition to be an FBI agent increased by four students, students ambition to be a professor increased by one student, and one student’s ambition to be a principal increased as well (see Figure 1).

![Figure 1. Career Ambition Pre and Post Presentation](image-url)
Discussion

The focus of this research study was to better understand Latino-ethnic K-5 students’ ambition and the influence on higher educational goals before and after a higher education presentation. In general, the ambition and knowledge level of K-4 students increased with a simply Higher Education presentation. These findings compliment data indicating a connection between higher education institutions and K-5 students are needed to increase their knowledge about Higher Education (Botchwey & Hunter, 2017; Dotson, LaBadie, & Overbey, 2018). Botchwey and Hunter (2017) found collaborations between K-12 and universities increase knowledge and learning experiences. Dotson, LaBadie, and Overbey (2018) found collaborations aren’t only beneficial but necessary to connect experts in the STEM field with libraries and in return libraries can connect experts with children. These are valuable ways to increase knowledge through collaboration and exposure. Additionally, suggestions have been made to include powerpoint presentations to increase knowledge and the learning process (Ferreira, Santos, & Serpa, 2018; Okawuiro & Onivehu, 2018).

Hanif and Puspitarini (2019) specifically suggest to incorporate technology when trying to enhance the learning experience in elementary students. Much like these groundbreaking research projects, this research study attempted to connects K-4 students with Higher Education information through a presentation. As a result, ambition and knowledge was gained. The implication here is, with the increase of motivation, from activities in the presentation, so would be the increase of successful outcomes in higher education (Imbrisca & Romania, 2020). This outcome compliments Imbrisca and Romania (2020) results indicating personal values motivate students to become more involved in social responsibility activities which in turn sustained the higher education through the support from students and faculty involvement. In other words, success rates such as gaining an education are enhanced through activities that support the values of the student, which in turn increases the knowledge of students and sustains Higher Educational goals. This research study demonstrated that through activities in a presentation to elementary students, knowledge and ambition was gained, which led to an increase in ambition in attaining higher educational degrees and knowledge about higher educational goals.

The purpose of this comparison study is to understand if there is a correlational difference in higher education ambition among Latino-ethnic students in K-5 grade levels. First, a time limitation was encountered due to having five hours a week dedicated to this research project. Secondly, lack of site participation provided a limitation. The researchers reached out to three elementary schools and only received one invitation to present. Third, financial funding was a limited. Presenters included a group of six undergraduate students whom were unable to travel outside the Rio Grande Valley to collect additional data. Thus, it limits access to only a small population. Fourth, funds limited analysis procedures to the PSPP program, which is a free statistical program similar to SPSS. Lastly, assumed resources available by the site being studied influenced survey responses.

Conclusion

The purpose of this comparison study is to understand if there is a correlational difference in higher education ambition among Latino-ethnic students in K-5 grade levels. Impoverished schools are lacking efficient resources (Hicks, Linderman, & Strumbos, 2018). The researchers utilized a survey to better understand this phenomenon. The results for the data collected were significant and indicated students had higher ambition to attend college and attain a doctorate’s degree after a K-5 Higher Education Intervention presentation. Limitations that were encountered included lack of time, resources, and site participation. Including more schools in impoverished areas and different grade levels, obtaining more funding and resources, and using Survey Monkey to administer surveys are all recommendations for future researchers.

Recommendations

There are several recommendations for future research. The first recommendation is to extend the research to include more schools in impoverished areas, schools that are categorized as middle class, and schools that are categorized as upper class. In addition, a comparison between elementary, middle school, and high school would elaborate on the correlational difference in higher education ambition among Latino-ethnic students in all grade levels. Another recommendation is to spend more time developing a presentation and survey that is better suited for each grade level studied. Furthermore, obtaining funding for materials and resources to expand any
research project focused on these variables would assist profusely. Specifically, the Survey Monkey software should be used in future studies. Also, administering and collecting the pre-survey prior to the presentations is recommended as well as administering and collecting the post-survey after the presentations. Recommendations also include increasing sample size to run a T-test. This may allow researchers to compare data between students who had knowledge of college and who didn’t have knowledge of college which would provide insight. Overall, these recommendations would help achieve the purpose of this comparison study.

Acknowledgements

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References


Appendix A: Survey Instrument

Pre-Survey  
Post-Survey  
Classroom Code: ___

Teacher Name:___________  
Grade Level: ____________
Average Income: __________  
Total Students Enrolled: _________
Total Students Present: _________

1. How many students want to attend college?___  
1B. How many students did not know what college was when asked? ___

2. How many students want to complete an Associate’s Degree ONLY?___  
2B. How many students did not know what an Associate’s Degree was when asked? ___

3. How many students want to complete a Bachelor’s degree ONLY?___  
3B. How many students did not know what a Bachelor’s degree was when asked? ___

4. How many students want to complete a Master’s degree ONLY?___  
4B. How many students did not know what a Master’s degree was when asked? ___

5. How many students want to complete a Doctorate’s degree ONLY? ___  
5B. How many students did not know what a Doctorate’s degree was when asked? ___

6. What kind of careers do the students want to work in? List all careers mentioned please.  
Comments: