Relational Development as a Cornerstone of Success in Latino STEM Retention

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Dr. DaVina J. Hoyt holds a Post Doc / Faculty appointment at Washington State University in The School of Mechanical and Materials Engineering. Dr. Hoyt is an inclusive community building specialist with over 13 years of diversity training, cultural competency programming, community development and cross-cultural collaborative experience. She has a strong background in designing and implementing programs that help to facilitate community building and inclusiveness. Dr. Hoyt is a visionary, versatile and engaging professional with a record of building linkages across sectors and geographical boundaries.

Her background is multicultural; her work experience varied and her interests multitudinous. She is an educational researcher and independent consultant who has travelled extensively doing research, motivational speaking and trainings for individuals, corporations, nonprofit organizations and educational institutions. Dr. Hoyt's work cuts across several countries in Africa, Caribbean and Europe. She has presented her research on inclusive community building using the groundbreaking Ellison Model at conferences in the U.S., Bahamas, Italy and Nigeria.

In addition to diversity and inclusiveness, Dr. Hoyt's research also looks at the ability of Africa-American females to break the glass ceiling in education. Dr. Hoyt is a connector, mentor and educator who is passionate about promoting education and assisting low income students to access the resources they need to enable them thrive and succeed academically. She also works with students of all racial backgrounds to teach them how to develop relationships across racial, ethnic and social economic lines in order to build inclusive communities based on trust, honor and respect.

Prof. Charles Pezeshki, Washington State University

Dr. Charles Pezeshki is a professor in mechanical engineering at Washington State University, and runs the Industrial Design Clinic, where students work on real-world industry problems with specified deliverables for their capstone projects. He is also interested in global engineering and the evolution of engineering education.

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EDUCATION

Washington State University, M.Ed., 1995, Counseling Psychology Universidad Santo Tomas, 1990, BA, Education

PROFESSIONAL EXPERIENCE

Director, Office of Multicultural Student Services, Washington State University, 2004-Present Associate Director, Office of Multicultural Student Services, Washington State University, 2001-2004 Assistant Director, Office of Multicultural Student Services, Washington State University, 1996-2001 Retention Counselor, the Chicana/o Latina/o Student Center, Washington State University, 1991-1996

SELECTED SCHOLARLY ACTIVITIES, PUBLICATIONS, AND PRESENTATIONS

Faculty of Record, Ed Ad 497, Peer Leadership - Team Mentoring Program. WSU, 2007– Present. A leadership seminar designed to enhance mentors' theoretical understanding of mentoring, identifying mentoring style, and further facilitate continued development of mentoring skills, gaining knowledge about the University resources with particular emphasis on those available to students in the STEM disciplines. Further, mentors should acquire in-depth understanding of what is needed to be a successful student in these academic fields. Faculty of Record, Ed Ad 497, Peer Leadership - Multicultural Student Mentoring. WSU, 1993– 2007. Acevedo, J. M., McCracken, V. (2007). Multicultural Student Retention Summit:

Building University-wide Understanding and Commitment to Address Multicultural Student Persistence, Achievement, and Graduation. 20th Annual Conference on Race and Ethnicity in Higher Education. San Francisco, California Acevedo, J. M., McCracken V. (2006). Building University-wide Understanding and Commitment to Multicultural Student Persistence, Achievement, and Graduation. Washington State Faculty and Staff of Color in Higher Education 11th Annual Conference. Vancouver, Washington Acevedo, J. M. (2005). Multicultural Student Persistence, Achievement, and Graduation: Critical Issues. Multicultural Student Retention Summit. Washington State University, Pullman Acevedo, J. M., Herrera, R., Ramirez, J. (1999). "Building a Successful Multicultural Student Mentor Program: Foundation, Design, Implementation, and Evaluation." 13th Annual National Conference on Student Retention, San Francisco, California Acevedo, J. M., Herrera, R., Ramirez, J. (1999). "Peer Mentoring: Engaging Upper-Class Undergraduate Students in the Institutional Effort to Retain First Year Multicultural Students." 18th Annual National Conference on the First-Year Experience. University of South Carolina, Columbia, South Carolina

SPECIALTIES AND RESEARCH AREAS

Student development, retention, achievement, and graduation with specific emphasis on Multicultural student populations Program development, implementation, and assessment Area management towards service delivery to multicultural student populations Student Mentoring in Higher Education

SELECTED SERVICE AND PROFESSIONAL ORGANIZATIONS

Member, American College Personnel Association (ACPA), 2000-Present Member, Student Affairs Administrators in Higher Education (NASPA), 2004-present Member, Member, Provost's Council on Student Retention, Washington State University, 2006-2008 Chair, University Scholarship Coordinating Committee, Washington State University, 2006-2007 Advisor, Council of Multicultural Student Presidents (CMSP), Washington State University, 1996-present Member, WSU Faculty Senate Washington State University, 1997-2000 Co-Chair, Chicana/o Latina/o Faculty and Staff Association Washington State University, 2001-2003

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Abstract

Two of the most important things in maintaining and increasing minority enrollment in STEM disciplines are the construction of relational communities of support for students outside the mainstream, and the development of a cohort of appropriate mentors for these students. The Team Mentoring Program (TMP) at an institution in the United States addresses both needs, and has increased the retention of students across the minority spectrum.

However, there is always room for improvement and the possibility of program duplication at other campuses. One of the areas identified for research was to understand exactly what factors – both cultural and relational – that students in this cohort are deficient in as a way to make sure that the TMP addresses these directly. Additionally, another goal was to gain an understanding of the experiences of Hispanic/Latino (a) students in the STEM who are not participants of the Team Mentoring Program, including both those students who are studying in the United States as well as students who are studying in Colombia. Because of the variability in backgrounds of students, from ethnic heritage to social class, it was decided to research Hispanic/Latino(a) students, their backgrounds, and their understanding of various relational roles and attempt to correlate these with student success. The goal was to identify exactly what students do and do not know about the different roles of support services in university life (titles like 'professor', 'counselor', 'advisor', 'mentor') and match these back to the level of relational development and social class that is extant in their backgrounds.

To that end, the above researchers conducted a study that included the participation of 79 Hispanic/Latino (a) undergraduate students from Colombia and the United States who were majoring in the STEM fields. A survey (see appendix) was created and administered to both groups of students in order to understand primarily a group of students' relational sophistication, and match this with their background before they attended their universities, as well as gain a snapshot of how tenure at their respective universities affects their larger understanding of these roles in the university towards their academic success, matriculation and ultimate graduation from their institution with a degree in STEM.

Introduction

Success in today's global economy rests on the ability of schools locally, nationally and internationally to produce academically gifted minority students (in this case Hispanics and Latino (a) s) who are able to transcend racial, cultural, ethnic, socio-economic and linguistic boundaries in the workplace who will ultimately be able to produce sound results in the global workforce in the STEM fields. More specifically, as stated in the article *Expanding Underrepresented Minority Participation (2011),* "for the United States to maintain the global leadership and competitiveness in science and technology that are critical to achieving national goals today, we must invest in research, encourage innovation, and grow a strong, talented, and innovative science and technology workforce" (Committee on Underrepresented Groups and the Expansion of the Science and Engineering Workforce Pipeline, p.1).[1]

Statement of the Problem

In order to accomplish such, firstly, it is imperative to provide minorities, more specifically, Latino(a) and Hispanic students with the academic and personal support needed in the primary through secondary school years; secondly, resulting in graduation from High School and ultimately admission, retention, matriculation and graduation from a college or university with a degree in the STEM fields; thereby resulting in an increase of Hispanic/Latino(a)s pursing professional careers in STEM related fields.

In light of the call for national and international foundations, organizations and universities to increase the recruitment, retention, matriculation and graduation rates of underrepresented minorities in the STEM fields (such as the *Broadening Participation in Science. Technology, Engineering*, and Math (STEM)[3] a collaboration between The Institute for Higher Education Policy, American Institutes of Research and the National Science Foundation), and countless other foundations that have poured resources into researching how to increase enrollment into and graduation from STEM fields, this study resulted. More importantly then administrators, faculty and researchers creating their own ideas of how to assist these undergraduate STEM students, it was imperative that the survey instrumentation be driven by the initial ideas of an undergraduate majoring in the STEM who is self-identified as Hispanic/Latino(a), thus providing validity to the survey instrument and the study.

Review of the Literature

According to Lopez (2011), "The Latino/a population in the United States is currently the fastest growing group in our nation but continues to have the lowest college completion rates" (p. 2).[7] As undergraduate students, Hispanic/Latino (a) students are faced with additional challenges, more so if English is not their primary language, and/or if they are immigrants, or children of immigrants whose first language is not English. As "Latinos/as are a diverse group-they vary by country of origin, where they settle in the U.S., historical time period of migration, and their economic background (Súarez-Orozco et al., 2010)" (Lopez, 2011, p. 1).[7] In spite of the low graduation rates, Hispanics/Latino(a)s are still enrolling into colleges and universities across the country and the world, majoring in various areas including STEM, calling on the need for studies to help facilitate the retention, matriculation and graduation of these students.

There are unlimited sources and research geared towards increasing the academic achievement of minority students in science and technology, more specifically Hispanic/Latino (a) in STEM disciplines. In the study *Going the Distance: Best Practices and Strategies for Retaining Engineering, Engineering Technology and Computing Students (2011),* [2] a pilot study conducted by ASEE, reveals that student preparation for their program in engineering affects retention. Additionally, the study revealed that graduation rates and retention were variable according to several factors, including but not limited to ethnicity and race, "For example, the six-year graduation rate of Asian Americans was 66.5%, Caucasians – 59.7%, Hispanics – 44.4%, Native Americans – 38.6 percent, African Americans – 38.3%, females 61%" (p. 3).[2] According to Nestor-Baker and Kerka (2009),[8] approximately two-thirds of students who are Hispanic/Latino (s) who are majoring in the STEM fields do not finish their degrees. In light of the current

research on minority students pursuing degrees in the STEM fields, more specifically Hispanic/Latino (a), it is imperative that researches probe into the lived experiences of this population (prompting a qualitative approach to this study) during their tenure at their undergraduate institutions, gathering data, in order to improve on the retention, matriculation and graduation rate of these students.

In order to better understand the backdrop of the participant's higher educational structure in Colombia, a brief section is provided to give the reader a small glimpse of the Colombian higher educational system.

Background Information on Columbian Higher Education

According to World Bank (2014), the total population of Colombia in 2012 was 47.70 million with a GDP of $369.6 billion.[12] Columbia, located in Latin America has an educational system that is structured differently than the United States. In Columbia, is it the duty of the government and not-for-profit institutions to provide education to its citizenry. Unlike the United States, in Colombia education for profit is against the law (Izecson de Carvalho, A., Looi, Y., Saad, F. & Sinatra, J., 2013).[5]

With only 600,000 seats available for enrollment of students between the 32 universities located in Colombia combined, access to higher education is limited to a particular segment of the population. Additionally, Izecson de Carvalho, A., Looi, Y., Saad, F. & Sinatra, J. (2013) concluded that "the private, not-for-profit universities catering mostly to the country's elite increase access only incrementally due to their limited quantity and capacity. As a result, the vast majority of the public simply does not have access to higher education" (p. 1). [5]

This would shed light on the fact of why only 37.2% of Colombian students pursued training or higher education after completion of high school. Higher education is provided by public and not-for profit private institutions that are granted academic and administrative autonomy by the Colombian Constitution. As a pre-requisite for entry into an undergraduate program, the State Exam conducted by the Colombian Institute for the Promotion of Higher Education (ICFES) and a high school diploma are required. Unlike the United States, Colombian students are admitted directly into their major and such admission is determined by the students' scores in the ICFES (World Bank 2013, and the The Ministerio de Educación Nacional).[12]

Background Information on the Participant's University in the United States

Across the nation, multicultural students tend to have higher representation in the high need (Pell Grant eligible) and first generation categories, lower SAT scores, and perhaps less preparation to navigate institutions of higher education. These and other factors seem to impact and compromise their likelihood of staying and graduating at the same rate as the total student body. At a university in the western parts of the United States, where this study was conducted, this academic year (2013-2014), 58% of the Hispanic students were high need (Pell Eligible) and 64% were first generation students. This is the population from which the pool of students were selected to participate in the study.

Students who answered the survey in the United States are clearly the ones who have made a choice to engage and benefit from university programs such as MSS, LSAMP, SOLES and TMP. Through the Team Mentoring Program (TMP) it has been documented that students pursuing STEM degrees and who are active participants of these type of programs on the university campus are being retained at higher rates, but also are participating in relevant educational experiences and develop strong networks of support from peers, faculty, and professionals.

For example, an analysis of the TMP program at this particular university from 2007-2011, cohorts shows that active TMP mentees (500 students) have an overall projected graduation rate of 75% (this percentage is the sum of those who have graduated and those still enrolled at the university by the fall of 2012) versus 69% for those who were invited to the program but chose not to participate (517). Now, the projected graduation rate with a STEM degree for students actively engaged in TMP is 61% compared to 45% for those not active in the program. Further analysis of the students seeking engineering degrees shows that their projected graduation with a STEM degree is 70% for active TMP mentees versus 51% for those not active in the program.

This paper will highlight results of our study that captured the voices, hence data, driven by 79 academically successful Hispanic and Latino (a) students across two countries (Colombia and the United States) that are majoring in STEM fields. The university in Colombia yielded 47 undergraduate participants all majoring in Engineering. The United States yielded 32 undergraduate participants, all from the same university, 15 majoring in Engineering and 17 majoring in the Sciences. Results of this study show that both groups of students from both countries had both unique experiences, which we conclude was resultant of their locations (whether studying in Colombia or in the United States), and interestingly commonalities that crossed over cultural and ethnic lines.

Methods

This study focuses on the causal effects of the university environment on the educational learning of Hispanic and Latino (a) undergraduate STEM students at two universities, one university located in the country of Colombia and the other university located in the United States. More specifically, what are the student's perspective of their learning environment and services provided to them at both institutions, are they knowledgeable about services provided, and if so, do they utilize the services at their institution?

The decision to utilize a qualitative methodological study, utilizing a qualitative approach was driven by the overwhelming strengths of this approach. Qualitative methods allows for the researcher to probe into the lives of participants by way of the instrument, namely, the survey in this study, inherently empowering the minority participants (Lincoln & Guba, 1985)[6] by giving them a voice (Spradley, 1979).[10] The qualitative approach and the use of survey allows for rich data to be attained directly from the participants, investigating the lived experiences of the participants told in their own words. Strauss and Corbin (1998)[11] argue that the qualitative research method is a successful technique to gather people's perspective and gather knowledge of the worlds. Additionally, Opie (2004)[9] contends that researchers who seek to investigate attitudes, value and feelings should utilize the qualitative approach. In light of the purpose of this research, the researchers overwhelming agreed that the best approach for this study was the use of

qualitative research method.

There were a total of 79 participants that were purposively selected to participate in this study, a mix of male and females. The use of this approach as opposed to random sampling allowed the researchers to target the population that met certain criteria. The participants in this study had to meet certain requirements such as being self-identified as Hispanic/Latino (a), an undergraduate student majoring in the STEM field, and a registered student at the universities where the studies were conducted, both in the United States and Colombia. All participants provided verbal consent (see appendix), as this was a requirement for their participation in the study, as outlined in the IRB (Institutional Review Board) Proposal that was submitted to and approved by the IRB in the Office of OGRD (Office of Graduate and Research Development) by the university in the United States. The approved IRB was duly submitted to the governing board of the university in Colombia and also approved before commencement of the study.

The surveys were distributed to the participants to complete by themselves, in English for those participants in the United States and in Spanish for those participants in Colombia. Completed surveys were then placed in an excel spreadsheet and data was analyzed by way of grouping and coding as well as cross analysis of the answers of each survey question, comparing the answers of the participants in the United States to those of their peer in Colombia. The analysis of the data both separately (each country data set separately) as well as jointly elicited similarities and differences between the two groups of participants which provided us with conclusive data.

Results

There are many overarching questions that this study sought to answer, far more that we have time to discuss in this paper. One of the questions that this study seeks to find is if there is an inherent difference in the Colombian student's experiences in their Engineering and STEM program at their institution as compared to their peers, Hispanic and Latino (a) student in the United States? Other questions that this study sought to find were the following: What are some of the similarities and stark differences between the experiences of the students in both countries? Do the students believe they have been equipped to successfully complete their program and that they have been provided with the necessary tools to do so? Are there areas where the students are lacking and if so, what recommendations do the students in both countries have in regard to improving their academic experiences to ensure retention, matriculation and graduation with their Engineering and/or STEM degree? These are just a few of the questions that were guiding this study.

Analysis of the data showed the student participants in both countries had similarities to each other in regards to their experiences as an undergraduate Hispanic/Latino (a) student in the STEM field. Seventy five percent of the students in the United States had professional work experience, closely aligned with their colleagues in Colombia who yielded at 68%. Interestingly, in regards to volunteering and participating in community service, 36% of the Colombian student stated that they volunteered compared to 94% of American students who stated that they volunteer and participate in community service.

	United States	Colombia
Professional Work Atmosphere	24 - Yes (75%)	32 - Yes (68%)

	United States	Colombia
Community Service/ Volunteer	30 - Yes - (94%)	17 - Yes (36%)

Ninety-seven percent of the American students reported that they knew how to drive with 78% of them owning a vehicle. Slightly over half of Colombian students (62%) stated that they knew how to drive, with merely 21% of them reporting that they have a vehicle. In regard to the academic supplies, 81% of American students knew what supplies they needed compared to 60% of Colombian students. Similarly are the results to teamwork at the respective institutions. One hundred percent of the student in the United States said that they participated in a task that relied on teamwork compared to 96% of Colombian students who also participated in teamwork.

	United States	Colombia
Know how to Drive	31 - Yes (97%)	29 - Yes (62%)
Own a Vehicle	25 - Yes (78%)	10 - Yes (21%)

	United States	Colombia
Know what Supplies to Purchase	26 - Yes - (81%)	28 - Yes (60%)

	United States	Colombia
Participated in Task that Related to Teamwork	32 - Yes - (100%)	45 - Yes (96%)

In relation to completion of an ESL class, 68% of the Colombian students said that they have participate in an ESL, adult education compared to only 19% of their peers in the United States cohort reported participating in ESL, adult education. Answers to the question of whether one has ever changed their major resulted in a stark difference between the two cohorts. Only 4% of the Colombian students changed their major, resulting in 96% of them never changing their major, contrasting to their peers in the United States with 31% of the students who have changed their major. Both peer groups were confident that they would graduate from college, 97% for the United States cohort and 98% for the Colombian cohort.

	United States	Colombia
Completion of ESL Class	6 - Yes - (19%)	32 - Yes (68%)

	United States	Colombia
Ever Changed Major	10 - Yes - (31%)	2 - Yes (4%)

	United States	Colombia
Confident will Graduate From College	31 - Yes - (97%)	46 - Yes (98%)

Overall both groups of students reported that they have someone to look up to when making decisions as well as someone outside their family to give them advice. The Colombian students reported that 45% of them had someone to look up to (81% identifying the person as a family member), whereas 72% of the American students reported that they had someone to look up to when making decisions (56% identifying the person as a family member).

	United States	Colombia
Someone to Look up to	23 - Yes - (72%)	21 - Yes (45%)
Person to Look up to Family Member	18 - Yes - (56%)	17 - Yes (81%)

In regards to seeking help for achieving academic goals, more than half of the cohort in the United States identified professors as someone they would seek help from compared to only one-third of the Colombian cohort identifying their professor as someone they would seek help from. Interestingly, 51% of the Colombian cohort identified a peer as someone they would seek help from. In regards to outside funding such as scholarships only 30% of Colombian cohort reported that they knew how to look for and apply for scholarships, interestingly, out of this number only 2% reported that they will actually apply. When answering the same question, 81% of the cohort from the United States reported that they knew how to apply for scholarships and 50% of them reported that they would actually apply.

	United States	Colombia
Seek Help from Professor to Achieve Academic Goals	25 - Yes - (78%)	15 - Yes (32%)

	United States	Colombia
Know where to Look for and How to Apply for Scholarships	26 - Yes - (81%)	14 - Yes (30%)

	United States	Colombia
Actually Apply for Scholarship	16 - Yes - (50%)	1 - Yes (2%)

Conclusions & Recommendations

The overwhelming amount of data from this study validated the researcher's choice to use qualitative research methods for this study as it provided much rich data, more data than we have time to outline in this particular paper. The results of this study shows that the students in both the United States and Colombia are very aware of their academic goals and what is needed for them to be successful at their universities. The students are self-aware of the resources that are provided at their institutions as well as what they need to do in order to have academic success.

The students overwhelming reported that they utilized the programs and services at their

institutions, whether it was tutoring programs offered, programs such as TMP or access their professors, friends, professionals, peers, and family member that they saw as their mentors through their academic endeavors. The students from the United States overwhelming reported that they saw their professors as mentors to them, someone that they would go to for educational advice. Contrarily, the Colombian students reported that they would go to a peer more so than a professor.

Overall there were many commonalities between the two groups even though they are located and studying at institutions from two different parts of the world. There were also stark difference, especially in regards to the socio-economic backgrounds of the groups as well as the educational attainment of both groups, with the Colombian students having a much higher percentage of both parents attaining a high school diploma and college degree compared to the United States cohorts whose parents overwhelmingly had primary education or less, which is a major factor contribution to their relational development and academic success at their institutions.

The students in this study provided additional rich data that provides insight that can be utilized to assist organizations, foundations, companies and educational institutions that are interested in increasing the recruitment, retention, matriculation as well as graduation of Hispanic / Latino (a) students in the STEM fields. Additionally, the data from this study can provide current and future Hispanic and Latino (a) students in the STEM fields with "keys for success" during their academic pursuits.

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[12] World Bank 2013, and the Ministerio de Educación Nacional.

1. What does it mean to be accountable?

_____

_____

2. What does it mean to be ethical in a school environment?

_____

_____

3. Have you been in a professional work atmosphere (volunteer, visited companies, spent the day on the job with someone)? If yes, how many times?

□ No
□ Yes

If yes, can you describe your experience (what type of company, what did you do, what did you learn)?

_____

_____

4. Have you ever volunteered to do community service?

□ No
□ Yes

If yes, what kind?

_____

5. Have you ever participated in a task and relied on teamwork to accomplish it?

□ No
□ Yes

If yes, what kind of task(s)?

_____

6. What does it mean to be a leader?

_____

_____

7. Of the statements below, check the one that better describes the economic conditions of your family:

□ Not enough money even for food
□ Enough money for food, but buying clothes is difficult
□ Enough money for food and clothes and can save a bit
□ Can buy certain expensive things
□ Can buy whatever we want

8. Where do you live?

□ University housing
□ Rent your own room off campus
□ Share a room off campus
□ Other_____

9. How do you get to school?

□ Walk
□ Bike
□ Bus
□ Carpool
□ Other_____

10. Do you know how to drive?

□ No
□ Yes

If yes, how did you learn (circle one)?
self, parent, friend, driving classes, other

If no, would you be interested in taking a driving course?

□ No
□ Yes

11. Do you own a vehicle?

□ No
□ Yes

12. How many times do you buy new clothes in one school year?

□ Never
□ 1-2
□ 3-4
□ More than 5

13. How much do you spend in clothes every year?

□ Less than $150
□ Between $150-$300
□ More than $300

14. Do you know what school supplies do you need?
□ No
□ Yes
If yes, list what you will buy, where, and how much you anticipate spending.

_____
_____

15. Do you know how to manage a budget?
□ No
□ Yes
List what bills you pay monthly.

_____
_____

16. Approximately how much money do you spend separately on bills? _____
Educational expenses? _____
Personal needs? _____

17. How many languages do you speak and what is your first language?
18. Do you currently take or have taken language classes (adult education, ESL)?
□ No
□ Yes

19. Do you have children?
□ No
□ Yes
If yes, how many?

_____

If you checked NO, skip the next 4 questions.

Do you have a partner to support you and your children?
□ No
□ Yes

Do you use childcare?
□ Yes
□ No

If no, who, where, or what do your children do?
□ Self-care
□ Family
□ Friends
□ After school activities

What kind of childcare resources do you use?
□ None
□ C-Campus Grant
□ DSHS Childcare assistance
□ Other_____

_____

Are you aware of the resources available for electricity, food, or rent? If yes, please list.
□ No
□ Yes
If yes, please list

_____
_____

20. Of the following, which one better describes the level of education of your parents:

Mother
□ Primary school or less
□ Some high school education
□ High school graduate (includes equivalency)
□ Some college/Associate Degree/Vocational school
□ Bachelor's Degree or Higher

Father
□ Primary school or less
□ Some high school education
□ High school graduate (includes equivalency)
□ Some college/Associate Degree/Vocational school
□ Bachelor's Degree or Higher

21. Are you confident you will graduate from college?
□ No
□ Yes

22. Have you ever changed your major?
□ No
□ Yes
If yes, why?

_____

23. When graduating from College, what would be your degree?

_____

24. What influenced you to choose your major?

_____

25. What type of professional career would you ultimately like to achieve?

_____

26. Does your family impact your career and educational goals?
□ No
□ Yes
If yes, how?

_____

_____

27. Does your social live impact your education?
□ No
□ Yes
If yes, how?

_____

_____

28. Do you have someone to look up to and guide you when making decisions?
□ No
□ Yes

If yes, is this person a member of your family?
□ No
□ Yes

29. Do you have someone outside from your family you go to for advice?
□ No
□ Yes

Would you say this person is:
□ A professional?
□ A friend
□ A fellow student

How often do you meet or talk with the person you look up to, the person who gives you advice and/or a mentors you?
□ More than 5
□ 3-4
□ 1-2
□ Never

30. To help accomplish your educational goals, do you seek help from any of the following?
□ Professor(s)
□ Academic Advisor
□ Tutor
□ Mentor
□ Counselor
□ Peers
□ Family Members
□ Other_____

31. List the locations where do you go for tutoring:

_____

_____

32. How many hours do you spend in tutoring sessions per week?
□ None
□ 1 to 5
□ 6 to 10
□ 10 to 15
□ More than 15

33. Do you know where to go to study?
□ No
□ Yes

How many hours do you study a week?
□ None
□ 1 to 5
□ 6 to 10
□ 10 to 15
□ More than 15

34. Do you know where to look for and how to apply for scholarships?
□ No
□ Yes

If yes, do you actually apply?
□ No
□ Yes

35. Are you involved in clubs and/or other school organizations?
□ TMP
□ LSAMP
□ SOLES
□ CAMP
□ American Society of _____
□ Society of Women Engineering
□Other_____

36. Do you have any type of job training?
□ No
□ Yes
If yes, what kind?
_____

37. Do you have any special skills to bring to a job?
□ No
□ Yes
If yes, what kind?
_____

38. Do you have a job while attending college?
□ No
□ Yes
If yes, what kind?
_____

39. Have you attended a Career Fair?
□ No
□ Yes
If yes, how did you prepare for it?
_____

40. If you were at a job fair, would you know how to keep the company representative interested in talking to you?
□ No
□ Yes
Explain your answer.
_____

41. Do you know what an internship or a co-op is?
□ No
□ Yes

If yes, are you planning to apply to one?
□ No
□ Yes
If yes, when and where?
_____

42. Do you know how to use the internet efficiently?
□ No
□ Yes

43. Which Microsoft programs do you know how to use? Grade your ability on a scale between 1-5 (5 being proficient).
□ Project _____
□ Access _____
□ Excel _____
□ PowerPoint _____
□ Word _____
□ Publisher _____

44. What other computer programs are you familiar with and how many times have you used them?

_____

_____

45.What other computer program are you good or exceptional at?

_____

_____

46. Do you play sports for fun?
□ No
□ Yes
If yes, which one/s?

_____

47. Do you play competitive sports?
□ No
□ Yes
If yes, how many years and at what age?

_____

48. Have you been to a sporting event at the university? If yes, how many times?
□ No
□ Yes _____

49. Have you been to a professional sports event?
□ No
□ Yes
If yes, how many times?

_____

50. Do you play a musical instrument?
□ No
□ Yes
If yes, for how long?

_____

51. Have you ever been to a museum or art/science/agriculture fair?
□ No
□ Yes
If yes, how many times?

_____

52. Do you read books, magazines, articles?
□ No
□ Yes
If yes, how many a year?

_____

53. Do you have a public library card?
□ No
□ Yes
If yes, how often do you use it a year?

_____

54. Outside of the university activities, what do you enjoy doing?

_____

_____

55. Do you exercise?
□ No
□ Yes
If yes, how many times a week?

_____

56. Do you have family/friends here at the university?
□ No
□ Yes

57. Do you have family/friends here in this city, outside the university?
□ No
□ Yes

58. How many siblings do you have?

_____

59. Are both parents active in your life?
□ No
□ Yes
If yes, explain how

_____

_____

60. Do you have a mother and father figure?
□ No
□ Yes
Explain

_____

_____

61. On scale of 1 to 5, 1 being strongly disagree and 5 strongly agree, rate how much you agree with the statement *"My home life has contributed positively to my educational success."*

1 2 3 4 5

62. If there was something you could change growing up, what would it be?

_____

_____

63. Growing up, how many schools did you attend:
□ Only 1
□ Between 3 and 5
□ Between 5 and 10
□ More than 10

64. What types of schools did you attend:
□ Private
□ Public
□ Home school

65. Where they located in your neighborhood?
□ No
□ Yes

66. Do you value them as good academic schools?
□ No
□ Yes

67. Were your teachers supportive?
□ No
□ Yes

68. Do you feel the schools prepared you for college?
□ No
□ Yes
If no, why not?

_____

_____

70. What are some academic challenges you faced in primary, secondary, and high school?

_____

_____

_____

71. What are some personal challenges you faced in primary, secondary, and high school?

_____

_____

_____

72. Growing up, what was the best advice given to you that you have utilized as an adult?

_____

_____

_____

73. Please list the type of services and programs your school should provide to better help students like you successfully achieve your educational and career goals:

_____

_____

_____

1. ¿Cuál es el significado de ser responsable?

_____

_____

2. ¿Cuál es el significado de ser una persona ética en una ambiente escolar?

_____

_____

3. ¿Ha estado en una atmosfera profesional (Voluntario, visitas técnicas, pasar el día en el trabajo de alguien)? Si es así, ¿cuántas veces?

□ No
□ Si
Si es así, puede describir su experiencia (¿qué tipo de compañía?, ¿qué ha hecho allá?, ¿qué aprendió?).

_____

_____

4. ¿Ha servido alguna vez como voluntario de un servicio comunitario?

□ No
□ Si
Si es así, ¿De qué clase?

_____

_____

5. ¿Ha participado alguna vez en una tarea o trabajo en equipo?
□ No
□ Si
Si es así, ¿Qué clase de tarea(s)?

_____

_____

6. ¿Qué significa ser un líder?

_____

_____

7. De las siguientes afirmaciones, marque la que describe mejor la situación económica de su familia.

□ No hay suficiente dinero, ni siquiera para comida
□ Suficiente dinero para comida, pero difícil para comprar ropa
□ Suficiente dinero para comida y ropa y poder ahorrar alguna cantidad.
□ Suficiente dinero para comprar algunas cosas caras
□ Suficiente dinero para comprar lo que quiera

8. ¿Dónde vive?
□ Residencia universitaria
□ Rentas tu propia habitación
□ Afuera de la universidad en una habitación compartida fuera de la universidad
□ Otro_____

9. ¿Cómo va a la universidad?
□ Caminando
□ Bicicleta
□ Bus
□ Carro Compartido
□ Otro_____

10. ¿Sabe conducir?
□ No
□ Si
Si es así, ¿Cómo aprendiste a conducir(marque una opción) (pariente, amigo, tomando clases de conducción)?

Si no, ¿estarías interesado en tomar un curso de conducción? ¿Sabes que suministros necesitas?
□ No
□ Si

11. ¿Tienes tu propio vehículo?
□ No
□ Si

12. ¿Cuántas veces compra ropa nueva para la universidad en un año escolar?
□ Nunca
□ 1-2
□ 3-4
□ Más de 5

13. ¿Cuánto dinero gasta en ropa cada año?
□ Menos de $300.000
□ Entre $300.000 y $600.000
□ Más de $600.000

14. ¿Sabe que suministros necesitas?
□ No
□ Si

Si es así, haga una lista de lo que compra, donde y cuanto debe gastar.

_____
_____

15. ¿Sabe cómo manejar un presupuesto?
□ No
□ Si
Haga una lista de lo que pagas mensualmente.

_____
_____

16. Aproximadamente ¿Cuánto dinero gastas separadamente en:
¿Cuentas? _____,
¿Educación? _____,
¿Gastos personales? _____

17. ¿Cuántos idiomas puede hablar? ¿Cuál es su primera lengua?

_____
_____

18¿Toma actualmente o ha tomado clases de otro lenguaje (Clases especializadas)?
□ No
□ Si

19. ¿Tiene hijos?
□ No
□ Si
Si es así, ¿Cuántos? _____

Si ha dicho que no a la pregunta anterior, omita las siguientes 4 preguntas

¿Tiene una pareja que le ayuda con los suministros de tus hijos?
□ No
□ Si

¿Usa una niñera?
□ No
□ Si
Si no es así, ¿Quién, donde o que cuida tus hijos?
□ Tu mismo(a)
□ Familia
□ Amigos
□ Actividades después del colegio

¿Qué clase de recursos para cuidar los niños usa?
□ Ninguno
□ Ayuda Universitaria
□ DSHS Asistencia para los niños
□ Otra_____

¿Es consciente de los recursos disponibles para electricidad, comida o arrendamiento?
□ No
□ Si

Si es así, haga una lista de ellos_____
_____

20. De los siguientes, cual describe mejor el nivel de educación de sus padres:

Madre
□ Escuela primaria o menos
□ Algunos años de escuela secundaria
□ Graduada de escuela secundaria
□ Algunos estudios / Grado Asociado / escuela profesional
□Grado universitario o más alto

Padre
□ Escuela primaria o menos
□ Algunos años de escuela secundaria
□ Graduada de escuela secundaria
□ Algunos estudios / Grado Asociado / escuela profesional
□ Grado universitario o más alto

21. ¿Está seguro de que se graduara de la universidad?
□ No
□ Si

22.¿Se ha cambiado de carrera alguna vez?
□ No
□ Si
Si es así, ¿Por qué?

_____
_____

23. Cuando se gradué de la universidad, ¿qué grado de escolaridad completara?

_____
_____

24. ¿Quién lo influencio a escoger su carrera?

_____
_____

25. ¿Qué carrera profesional le gustaría lograr en última instancia?

_____
_____

26. ¿Su familia impacta su carrera y su objetivo educacional?
□ No
□ Si
Si es así, ¿Cómo?

_____
_____

27. ¿Su vida social impacta su educación?
□ No
□ Si
Si es así, ¿Cómo?

_____
_____

28¿Tiene a alguien que le ayude y guie a tomar decisiones?
□ No
□ Si

Si es así, ¿es una persona de su familia?
□ No
□ Si

29. ¿Tiene a alguien fuera de su familia que le de orientación o lo aconseje?
□ No
□ Si

Diría que esta persona es:
□ Un profesional
□ Un amigo
□ Un compañero de estudios

¿Con que frecuencia se reúnes o habla con la persona que le da consejos o le guía? y ¿con un tutor de su universidad?
□ Nunca
□ 1-2
□ 3-4
□ Más de 5

30. Para tener ayuda de sus objetivos educacionales, ¿busca ayuda de alguien?

□ Profesor(s)
□ Tutor Académico
□ Consejero universitario
□ Representante estudiantil
□ Compañeros
□ Miembros de tu familia
□ Otros_____

31. Haga una lista de lugares donde va por tutoría

_____
_____

32. ¿Cuántas horas gasta en tutorías a la semana?
□ Ninguna
□ 1 a 5
□ 6 a 10
□ 10 a 15
□ Mas de 15

33. ¿Sabe dónde ir para estudiar?
□ No
□ Si

¿Cuántas horas estudia a la semana?
□ Ninguna
□ 1 a 5
□ 6 a 10
□ 10 a 15
□ Mas de 15

34. ¿Sabe dónde buscar y como aplicar para becas?
□ No
□ Si
Si es así, ¿Actualmente aplica?
□ No
□ Si

35. ¿Está enrolado en algún club estudiantil u otra organización escolar? ¿Cuál?

_____
_____

36. ¿Tienes algún tipo de capacitación para el trabajo?
□ No
□ Si

Si es así, ¿de qué clase?

_____
_____

37. ¿Tiene alguna habilidad especial para aportar al trabajo?
□ No
□ Si
Si es así, ¿de qué clase?

_____
_____

38. ¿Tiene algún trabajo mientras va a la universidad?
□ No
□ Si
Si es así, ¿de qué clase?

_____
_____

39. ¿Ha asistido a una feria de trabajo?
□ No
□ Si
Si es así, ¿sabe cómo prepararse para asistir?

_____
_____

40. ¿Si hay una feria de trabajo, sabría que decir a la compañía o empresa que está interesada en hablar con usted?
□ No
□ Si
Explique su respuesta

_____
_____

41. ¿Sabe en qué consiste una pasantía?
□ No
□ Si

Si es así, ¿Está pensando aplicar a una?
□ No
□ Si
Si es así, ¿Cuándo? ¿Dónde?

_____
_____

42. ¿Sabe cómo usar el internet de forma eficiente?
□ No
□ Si

43. ¿Qué programas de Microsoft sabe usar? ¿Qué escala de habilidad entre 1-5 manejas (5 es la más competente)?
□ Project_____
□ Access_____
□ Excel_____
□ PowerPoint____
□ Word_____
□ Publisher_____

44. ¿Cual otro programa de computador le es familiar? ¿Cuántas veces los ha usado?

_____
_____

45. ¿Cuál otro programa de computador usted es bueno o excelente manejando?

_____
_____

46. ¿Practica algún deporte por diversión?
□ No
□ Si
Si es así, ¿Cuál o cuáles?

_____
_____

47¿Es competitivo en algún deporte?
□ No
□ Si
Si es así, ¿Por cuantos años? ¿Desde qué edad?

_____
_____

48. ¿Ha asistido a un evento deportivo de tu universidad?
□ No
□ Si
Si es así, ¿Cuántas veces?

_____
_____

49. ¿Ha asistido a un evento profesional deportivo?
□ No
□ Si
Si es así, ¿Cuántas veces?

_____
_____

50. ¿Toca un instrumento musical?
□ No
□ Si
Si es así, ¿Por cuánto tiempo?

_____
_____

51¿Ha estado en un museo o una feria de arte/ciencia/agricultura?
□ No
□ Si
Si es así, ¿Cuántas veces?

_____
_____

52¿Lee libros, revistas, artículos?
□ No
□ Si
Si es así, ¿Cuántos anualmente?

_____
_____

53. ¿Tiene una tarjeta de una biblioteca pública?
□ No
□ Si
Si es así, ¿Qué tan frecuente la usa anualmente?

_____

_____

54. ¿Qué actividades disfruta hacer afuera de la universidad?

_____

_____

¿Vas al gimnasio? Si es así, ¿Cuántas veces al mes?
□ No
□ Si _____

55. ¿Hace ejercicio?
□ No
□ Si
Si es así, ¿Cuántas veces por semana?

_____

56. ¿Tiene familiares/amigos en la universidad?
□ No
□ Si

57. ¿Tiene familiares/amigos en la ciudad? ¿Afuera de la universidad?
□ No
□ Si

58. ¿Cuántos hermanos tiene? _____

59. ¿Son sus padres activos en tu vida?
□ No
□ Si
Explica como

_____

_____

60. ¿Tiene una figura maternal y una figura paternal?
□ No
□ Si
Explica

_____

_____

61. En una escala de 1 a 5, 1 siendo fuertemente en desacuerdo y 5 fuertemente de acuerdo, la tasa de cuanto está usted de acuerdo con la frase ''Mi hogar ha contribuido positivamente en mi éxito educacional".

1 2 3 4 5

62. Si hay algo que pudieras cambia en su etapa de crecimiento, ¿Qué sería?

_____

_____

63. En su etapa de crecimiento, ¿cuántas escuela asistió?
□ Solo 1
□ Entre 3 y 5
□ Entre 5 y 10
□ Mas de 10

64. ¿Qué tipo de escuelas asistió?
□ Pública
□ Privada
□ Escuela en propia casa

65. ¿Estaban localizadas en su vecindario?
□ No
□ Si

66. ¿Las valoraría como buenas instituciones académicas?
□ No
□ Si

67. ¿Sus profesores lo apoyaban?
□ No
□ Si

68. ¿Siente que el colegio lo preparo para la universidad?

□ No

□ Si

Si no, ¿por qué no?

_____

_____

70. ¿Cuáles fueron algunos cambios académicos que experimento en primaria y secundaria?

_____

_____

_____

71. ¿Cuáles fueron algunos cambios personales que enfrentaste en primaria y secundaria?

_____

_____

_____

72. En su etapa de crecimiento, ¿Cuáles son los mejores consejos que has recibido? ¿Cómo lo has utilizado siendo adulto?

_____

_____

_____

73. Por favor haga una lista de los servicios y programas que debe proveer para ayudar a los estudiantes a alcanzar éxito en su educación, en sus objetivos y metas.

_____

_____

_____