

Determinants of Success in WPI Student-Led Organizations

A Major Qualifying Project Report:

Submitted to the Faculty

of the

WORCESTER POLYTECHNIC INSTITUTE

by

Tyler Alexander

Nysa Casha

Angelica Zawada

Co-advised by:

Professor Sharon A. Wulf, Co-advisor

Professor James Doyle, Co-advisor

Abstract

Worcester Polytechnic Institute (WPI) has approximately 200 student-led organizations. Unfortunately, many new student leaders require a relatively large adjustment period to lead effectively; therefore, hindering progress. To help combat this problem, we researched several variables in relation to organizational success, defined as membership engagement. By collecting data from the WPI population through surveys, interviews, and focus groups, and utilizing statistical and content analysis, we have provided recommendations for student leaders to facilitate development and greater organizational success.

Executive Summary

Introduction

The individuals that make up this MQP team all have been leaders, and would like to continue to grow and become mentors for others through the knowledge gained in this project. We decided to conduct research so that not only we will know what does and does not work in leading an organization, but so that organizations in our WPI community also have this knowledge. We are striving for success, and there are many ways in which that can be achieved. Our study was conducted in order to see which combination of variables would produce a successful organization. The four variables we primarily looked at were gender in the workforce, organizational hierarchy, leadership styles, and characteristics and traits of a leader. With success being defined as membership engagement, we explored the correlation of these variables to membership engagement to gather a profile of “successful” student-led organizations and best practices of these organizations.

Background

To gain a basis for our study we thoroughly researched all four of the variables we eventually tested. First we looked at gender, because it was a big topic of interest in our society. Since the beginning of the 20th century, women’s rights groups as well as various historical factors have been steadily leading to more women entering education and the workforce. In the second half of the 20th century women began to receive higher education and continued to skyrocket into the workforce. Today, more women have been attending college in the United States than men, and women now make up more than half of the American workforce. With all of these changes

we as a group felt it was interesting, in relation to our project, to see how organizations with gender diverse leadership correlated with success in terms of membership engagement.

Since people are such an integral part of success for organizations, it is imperative to know how to direct them to bring about such success. On the two ends of the hierarchical spectrum lie autocracy and holacracy. Much research has gone into showing that humans will crave and create order because it helps them to be more comfortable in the world around them (Galinsky, 2014). The question that then arose was what kind of organizational structure helped organizations achieve the greatest success.

We evaluated which prominent methods of leadership style best-engaged members. The three prominent kinds of leadership are tyrannical control, democratic organization, and laissez-faire methodology. In relation to the three listed above, leaders can use one of those styles and then motivate their organization members through means of coaching, pacesetting, commanding or charisma (Blanken, 2013). Subordinates will respond differently to diverse methods. Some will thrive under harsh criticism, while others need constant praise. Great leaders have used all of these methods and techniques. We looked at which combination of styles led to higher levels of success in an organization.

Finally, we looked at which characteristics and traits of leaders led to success of their organization. Researchers have discovered that personality traits of leaders influence the degree of success of a leader. A professor of management and leadership at the State University of New York, stated that the five most influential traits that determine success were a leader's "energy levels and stress tolerance, self-confidence, internal control

orientation, emotional maturity and integrity”. Other traits recognized in effective leaders include dominance, intelligence, flexibility, and sensitivity to others. We also identified common characteristics of servant leaders, which included listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people, and building community (Spears, 2010). How a leader interacts with his/her organization may influence how engaged its members remain. Therefore, we were interested in learning what characteristics and traits from our research listed above were essential to a leader.

Hypotheses

The following were our hypotheses in relation to our four variables. These were created so that we could shape our data in a relevant and clear way so that the groups we worked with could receive the maximum value from our study. In analyzing characteristics and traits of a leader, we proposed that successful leaders of an organization in terms of engaging members would each have more than half of the 19 characteristics and traits identified through our research in the literature review. When looking at leadership styles, we hypothesized that organizations with a participatory leadership style tended to experience increased membership engagement. We believed organizations with a flatter, more collaborative hierarchy would experience increased membership engagement. In the case of gender, we foresaw that organizations wherein the executive/leadership board was split evenly between males and females would have higher levels of membership engagement than those with executive boards comprised majority of either males or females.

Methodology

For the purposes of the study, we planned to have a representative sample of 20 organizations out of 173 organizations from a stratified sample. Stratified sampling is a method to sample from a population based on the proportional size of each category in the population. We then utilized various electronic and non-electronic methods to gather data for our analysis. Electronically, we sent the surveys online to the chosen organizations and their leaders. Our non-electronic methods included in-person interviews with executives and focus groups with a sample of executive members chosen from the aggregate of sample organizations.

The surveys we planned to provide had all the same questions and were available to all members of each organization we studied. The survey was scheduled to be distributed online due to the length of the survey and the large sample size we were trying to reach. It was determined easiest for our subjects to complete the survey at their own convenience on their own time.

The focus groups we expected to conduct were to be with executive members of our sample organizations. The participants in our study would be made aware that all answers would be confidential and that they could leave at any time. It was planned that the focus groups would discuss how the leaders in their organizations would utilize our results and how they wanted us to provide them with the results.

We intended to contact students, administration and faculty members for interviews in order to collect data for our study. We planned on contacting the presidents from the 20 organizations in our sample to obtain information about their organization regarding our variables, membership engagement, and challenges and successes within

their organization. We then decided we will contact faculty and administration to learn about their experience with student leaders, along with what they have seen to make an organization successful or not successful.

Procedures

In order to make sure our data was collected correctly we set aside a portion of the paper to talk about implementation, organization sampling and content analysis to detail how we made decisions and collected data.

In gathering data we interviewed WPI administration, WPI Student Activities Personnel, and presidents of student led organizations. The email sent to the administrators can be viewed in Appendix G. The WPI administration questions and protocol for the interview can be found in Appendix D. The email sent to Student Activity Personnel can be viewed in Appendix H. The WPI Student Activities Personnel interview procedure and questions can be found in Appendix C. The email for Presidents of student led organizations can be viewed in Appendix A. The interview Questions and procedure for the presidents of organizations can be found in Appendix B.

The survey itself was constructed first on Microsoft Word and then transferred to Qualtrics for ease of data collection and analysis. Please see Appendix J to look at the survey we sent out to organizations. In total, 15 out of the interviewed 16 organizations agreed to participate in our survey.

We contacted the executive members of the organizations who agreed to partake in our MQP's focus groups. We gained these email addresses or the executive email alias from the presidents of the organizations that gave us permission (Appendix I). Out of

those 14, 12 organizations were represented in the focus groups. Appendix E has all the questions used in the focus groups.

Results and Analysis

In analyzing our findings, we used the statistical software program SPSS, also known as the Statistical Package for the Social Sciences. A function we primarily used within SPSS was the Analysis of Variance (ANOVA) function and univariate testing. By using this function, we could support or deny our hypotheses by determining significance between different groups of variables as well as view their comparable mean scores in comparison to membership engagement.

Although, the interviews and surveys did not specifically support or deny our hypotheses, we still had interesting findings. The interviews reflected many of the characteristics and traits presented in the background as well as some that were not originally studied, which may be useful to look at in future research. In addition, the analysis of our survey data indicated that those who scored higher on our leadership characteristics and traits scale in our survey, had increased membership engagement scores in their organization.

Analysis of both the interview data and survey data showed that most organizations possessed a participatory leadership style, but these organizations were still having some issues with membership engagement. Statistically the survey data showed that participatory leadership styles was chosen most frequently by those taking the survey in relation to membership engagement. Therefore, participatory leadership styles had more impact on membership engagement.

Analysis of both the interview and survey data failed to provide sufficient support for our hypothesis that “organizations with a flatter, more collaborative hierarchy will experience increased membership engagement.” And based on the survey data concerning gender, the data failed to support our gender hypothesis.

Our focus groups discovered what kind of format the data could be potentially presented to organizations in. Most executives would like the data and recommendations in a concise electronic form that is available to their executives such as a voice over PowerPoint, or infographic all uploaded on OrgSync. These materials were asked to be given to the SAO office where student leaders would have access to the information.

Recommendations/Conclusion

The research we conducted led us to conclude that leadership correlates with membership engagement. Leaders set the tone of their organization. The way they lead and the values they exude will be reflected in the organization’s culture and execution of their goals. In addition to the recommendations we included at the end of the paper, we also created suggestions that organizations may follow to better their leadership. This handout can be found in Appendix T. In addition, we created a resource guide, which can be found in Table 31, and a PowerPoint that can give students and student leader’s access to free and easily accessible tools that can foster future improvements with membership engagement within organizations.

Acknowledgements

The MQP team would like to thank our advisors, Professor Sharon Wulf and Professor James Doyle for their constant support, input, and ideas along the way. Without them, this Major Qualifying Project truly would not have accomplished all that it did. We would also like to thank the following for helping or contributing to the Major Qualifying Project:

- Professor Jeanine Skorinko, Associate Professor of Psychology
- The Academic Technology Center (ATC)
- All of the presidents and organizations who agreed to help with our project
- All faculty and staff who allowed us to interview them for the purposes of this project
- Loan Chau, Class of 2015

Authorship

Each member contributed equally to the writing of this report. Angelica Zawada was the main facilitator and sole transcriber for the four focus groups conducted.

Table of Contents

Abstract	ii
Executive Summary	iii
Acknowledgements	x
Authorship	xi
Table of Figures	1
Table of Tables	2
Introduction	3
Background	7
Gender in the Workforce	11
Organizational Hierarchy	13
Leadership Styles	15
Characteristics and Traits of a Leader	20
The Role of Values in Leadership	24
Ethics in Business	26
Implications	29
Methodology	32
Introduction	32
Organization Sampling	34
Surveys	34
Focus Groups	38
Interviews	40
Content Analysis	42
Implementation	43
Implications	44
Procedures	46
Organization Sampling	46
Interviews	47
Surveys	48
Focus Groups	49
Results and Analysis	52
Introduction	52
Interviews and Statistical Analysis	52
Focus Group Analysis	84
Recommendations	94
Conclusion	100
Limitations and Future Research	103
References	107
Appendix A- Email to Organization Presidents	113
Appendix B – Interview Protocol for Presidents of Organizations	114

Appendix C – Interview Protocol for Student Activities Personnel	117
Appendix D – Interview Protocol for WPI Administration	119
Appendix E – Focus Groups for Individual Executive Members:	121
Appendix F – Organization Sampling Results	123
Appendix G – Email to WPI Administration	124
Appendix H – Email to Student Activities Personnel.....	125
Appendix I – Email to Focus Groups.....	126
Appendix J – Survey sent to Organizations.....	127
Appendix K – Focus Group Analysis Chart.....	136
Appendix L – Interview Questions Data Analysis.....	137
Appendix M: Focus Group Session 1	138
Appendix N: Focus Group Session 2	143
Appendix O: Focus Group Session 3	148
Appendix P: Focus Group Session 4	152
Appendix Q: Presidential Interview Data	159
Appendix R: Administrative Interview Data.....	160
Appendix S: SAO Personnel Interview Data	161
Appendix T: Increasing Membership Engagement within Your Organization Handout.....	162

Table of Figures

Figure 1 Four Dimensions of Employee Engagement	8
Figure 2: The Leadership Pipeline Model.....	25
Figure 3: Membership Engagement Frequency	55
Figure 4: Characteristics and Traits Frequency	55
Figure 5: Frequency of Leadership Styles	56
Figure 6: Organizational Hierarchy Frequency, wherein “1” denotes a participatory and collaborative hierarchy and “5” denotes a rigid and autocratic hierarchy.	56
Figure 7: Gender Overall Frequency.....	57
Figure 8: Gender by Position Frequency	57
Figure 9: Characteristics and Traits Correlated with Engagement.....	61
Figure 10: Individual Leadership Characteristics and Traits Between Subject Effects	62
Figure 11: Leadership Styles versus Membership Engagement	69
Figure 12: Engagement in Flat versus Hierarchical Organizations, with 95% confidence error bars.	76
Figure 13: Answer Values for Gender vs. Membership Engagement. Mean values for each are shown in Orange	81
Figure 14: Average Answer Value for Gender vs. Membership Engagement, with 95% confidence error bars.	81

Table of Tables

Table 1 Methods of Leadership	18
Table 2: Spears' Characteristics of Servant Leadership.....	22
Table 3: Traits Recognized in Effective and Influential Leaders	23
Table 4: Characteristics and Traits Descriptive Statistics.....	60
Table 5: Characteristics and Traits Between-Subjects Effects:.....	60
Table 6: Characteristics and Traits Pairwise Comparisons	60
Table 7: Characteristics and Traits Linear Regression Coefficients.....	61
Table 8: Characteristics and Traits Linear Regression R Squared	61
Table 9 A&B: Leadership Styles Descriptive Statistics and Between-Subjects Effects...	67
Table 10: Leadership Styles Multiple Comparison	67
Table 11: Organizational Hierarchy versus Membership Engagement	74
Table 12: Organizational Hierarchy versus Membership Engagement	75
Table 13: Significance of Individual Organizational Hierarchy Questions against Membership Engagement.....	77
Table 14: Gender ANOVA	80
Table 15: Gender by Position Output	82
Table 16: Gender and Position Between-Subject Effects	83
Table 17: Question 1 Responses	85
Table 18: Question 1 Quotes	85
Table 19: Question 2 Responses	86
Table 20: Question 2 Quotes	87
Table 21: Question 3 Responses	87
Table 22: Question 3 Quotes	88
Table 23: Question 4 Responses	89
Table 24: Question 4 Quotes	89
Table 25: Question 5 Responses	90
Table 26: Question 5 Quotes	90
Table 27: Question 6 Responses	91
Table 28: Question 6 Quotes	91
Table 29: Question 7 Responses	92
Table 30: Question 7 Quotes	92
Table 31: Resources for Student-led Organizations	97
Table 32: Research Limitations.....	105

Introduction

Worcester Polytechnic Institute's (WPI) student group the Student Alumni Society (SAS) was created over 30 years ago to revive old traditions and increase the spirit of the campus. Currently, it is one of the largest non-Greek student organizations on campus with nearly over 60 active members. It was not always this way however. From the years 2001-2008, SAS was nearly disbanded with total membership hovering around eight members at its worse. SAS has rebounded fantastically, and has kept going with its mission and goals of putting on and reviving old traditions for the campus. In 2012, after having similar membership involvement issues, the Worcester Polytechnic Institute Billiard's club was disbanded. Our campus boasts about having over 200 organizations on campus with which students can partake actively in, so keeping this number high and growing is of the utmost importance. So why do some organizations succeed, while others are less successful? Is it primarily due to the level of member engagement in the organization? Does higher member engagement, meaning members are emotionally invested in the organization rather than just being a part of a group, produce better results? These are the central questions that our Major Qualifying Project (MQP) team hopes to address.

The connection between the two above organizations is that Tyler Alexander ('15) is a part of SAS and was friends with the last president of the Billiards club. He was both familiar with the history and current states of both of the mentioned organizations. This spurred him to want to investigate the issue of organizational success, including but not limited to leadership practices and member engagement, further and he began talks with Professor Sharon Wulf in December 2013 about creating an MQP around this idea.

Over the next few months the idea was refined. Teammates Angelica Zawada ('15) and Nysa Casha ('15) were added to the project team, becoming key contributors and helped to shape the project and the direction it was headed in. Professor James Doyle was also added as a psychology co-advisor to the project team.

The individuals that make up this MQP team all have been leaders, and would like to continue to grow and become mentors for others through the knowledge gained in this project. This topic is not just personal to all of us but also is a primary focus of our majors, Management/ Management Engineering and Psychological Science. We decided to conduct research so that not only we will know what does and doesn't work in leading an organization, but so that organizations in our community, WPI, also have this knowledge. We are striving for success, and there are many ways in which that can be achieved. Our study would like to see which combination of attributes combined together will produce a successful organization. There may be one prominent mess of variables or many different combinations that lead to success. This knowledge will enable us to make recommendations to organizations and help us be good leaders in the future. Knowing that we are gaining so much from this we are overly excited to work on this project.

This project will give us a better understanding of how organizations are run and how they are or can be successful, which will be correlated through statistical analysis from data gathered by different research methods. Our team is gaining knowledge on how to collect and analyze data. We are using an array of collection methods, including surveys, interviews, variety content analysis, and focus groups to gain this data. We will have to determine best methods of asking questions on surveys, in interviews, and in focus groups, that would encourage valuable information being shared. With the use of

these methods, we will ask questions relating to membership engagement and leadership. We will need to be vigilant in all of these tasks so we do not miss subtle glances into a core of how an organization operates. We will do this by paying close attention to all collected data, recording interviews, analyzing focus groups, and thoroughly reviewing our research and newly gained material. We primarily will view these four variables at work in the organizations: structure, leadership styles, gender, and characteristics and traits of their leaders. Our statistical results will give us useful insight into how an organization's functionality correlates its ability to prosper. Our understanding of these connections will not only aid the organizations by giving them feedback and recommendations, but help us as student-leaders to use this knowledge in other aspects of our lives. We will know what does and does not produce results and will be able to use this information in project work in the corporate world when problems arise.

Our project looked at six variables and chose four of them to closely evaluate in our research. We decided on this approach because two of them were too broad of topics to look at during the short time we will be working on this MQP. All of the variables help us in relation to see how organizations thrive and deteriorate. With success being defined as membership engagement, we as an MQP team will explore the correlation of four of these variables to membership engagement to gather a profile of "successful" student-led organizations and best practices of these organizations. The four variables we will be correlating to our definition of success are gender in the workforce, organizational hierarchy, leadership styles, and characteristics and traits of a leader.

This MQP will provide change to the realm of management and leadership in the form of insight and recommendations, built on hard data obtained from student-led

organizations at WPI. Data collection and analysis will focus on pre-chosen variables, shown to impact successful organizations worldwide, to determine what makes WPI organizations successful as well. Our research will be conducted on WPI student-led organizations, which will produce results that are relatable, measurable, and concrete. Our hope is that the project will allow for struggling organizations or simply those interested in continuous improvement, to read and utilize our research and recommendations to bring about success and long-term survival. We also feel that this project will prove extremely valuable to students on campus who wish to start their own organizations but might not have all of the necessary insight to do so. It can alert these students to potential dangers and pitfalls as well as offer the best practices to follow to ensure success of the organization. Knowledge identified by the project can positively change the success rate of organizations on campus, a heavily marketable quality for WPI. Thus, the project has the potential to increase the amount of applications and interest to WPI overall. As far as the project team's own leadership, we strive to lead through our research a navigation of the jungle of differing management and leadership advice to identify concrete ways in which organizations succeed. Our work will help to establish a firm base of research, in a field that contains many opinions and paths to success, of how student-led organizations can achieve success.

Background

In today's business world, countless organizations consider themselves "successful". However, it is difficult to define "success" as to what it really means. The term success contains a wide variety of variables, outcomes, and factors. It can be the product of numerous leadership styles and traits. Therefore, it means something different depending on the perspective at which it is viewed. When a user searches "successful organizations" on a generic search engine, he or she is bombarded with countless strategies, mantras, steps, and characteristics of preexisting "successful" organizations. For any one organization, the knowledge of how to be "successful" and lead "successfully" would be very powerful and versatile. Our team has chosen to define success as membership engagement within organizations, based on theories in Fleming and Asplund's *Human Sigma*. The critically acclaimed book stresses that employee engagement brings greater financial and overall success to companies (Fleming, 2007). Our team feels similarly that if members are more fully engaged, they will help gather and retain new members, grow the presence of the organization, and subsequently help the organization financially and beyond.

We define membership engagement similarly to how *Human Sigma* defines employee engagement. There are different levels of employee engagement as shown by this figure from *Human Sigma*:

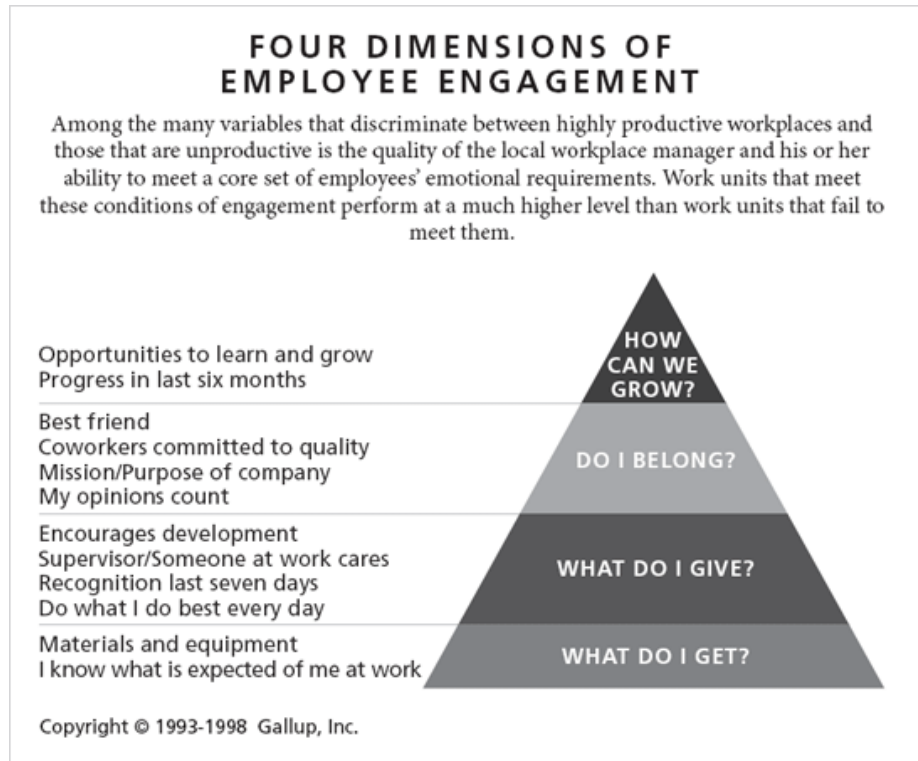


Figure 1 Four Dimensions of Employee Engagement

In the above figure, there are various levels and stages of employee engagement that can be spurred by many factors such as the work environment and supervisor attitude. Our team similarly feels that there are different levels of membership engagement. Therefore, based on our definition of success, the most successful organizations are those who have fully engaged members. Fully engaged members think and act on behalf of the organization's growth and well-being, and move well beyond thoughts of what the organization can do for them. These members know the organization is a right fit for them and will give it their all to see it succeed. As mentioned in the previous paragraph, fully engaged members will help gather and retain new members, grow the prestige and reach of their organization, and in the case of an educational setting, possibly increase organizational budgets by showing how well the organization has performed.

Our project is distinctive because the variables we are investigating have never been tested simultaneously. Our methodology is similar to others, but our topic is what distinguishes our research from others. *Human Sigma* has researched the role of employee engagement in companies, whereas we turn to membership engagement in organizations. Other researchers have tried to evaluate the success of organizations such as companies, universities and corporations around the world. The study which we found that had the closest resemblance to our project was one done by Lea Wender at the University of Michigan. Her study was done to determine organizational learning in student-led organizations. Her study did not have the same variables as ours nor is it researching a similar topic. The only common factor is how both our project and Wender's project take a closer look at student-led organizations. For the most part, searching for similar research or projects related to our own came up with no results. There are a wide variety of projects dealing with student involvement in student organizations and how it relates to grades, relationships with others on campus, or overall achievement, such as that done by Daniel Abrahamowicz (1988) or Gary R. Pike (2003). Since some of the research we have found deals with involvement or engagement, we have been able to glean some ideas from past research. One approach used by Lea Wender at the University of Michigan was to keep sample sizes very small. In this way a lot of quality data was captured in a timely way. Other than this example, however, techniques that other research and projects have done will be reflected in what we hope to do, such as gathering information via surveys, and interviews.

Our project focuses on college student-led organizations, which people can only build up or be a part of for a short period of time. The organizations we will be

researching are in the controlled atmosphere, Worcester Polytechnic Institute (WPI). This will provide a practical means of research and will allow us to use WPI student-led organizations as a testing arena for these variables. We are researching six relevant variables, which have never been studied in one project at the same time. We will view the following variables: gender composition, organizational hierarchy, leadership styles, characteristics of leaders, roles of values in leadership, and ethics in business. The information we gather may contrast or concur with information out in the world, but the methods of obtaining the information will be unique. We may be using common methods and research for gathering data, but the information we will receive will be the latest in this field of study. Our choice of these variables stems from what we have learned through our studies and research of what variables most impact leadership. We will briefly discuss these variables to give further insight into how they affect an organization and their leadership.

We chose WPI student-led organizations as our test candidate for this Major Qualifying Project (MQP) for two main reasons. The most important reason why we chose to investigate student-led organizations at WPI is because of the high percentage of overall student involvement. For a campus of roughly 4,000 undergraduate students, WPI contains over 200 student organizations and clubs, a staggering amount for its small enrollment size. There are so many diverse organizations that can thrive in a small population, which may grow, stagnate, or decline. Additionally, WPI's location is ideal for us to interact with and gather data from these organizations within our limited timeline. Its proximity adds ease and simplicity to distributing surveys, gathering focus groups, and conducting interviews. Therefore, we may better focus our time on learning

and understanding these organizations and analyzing our data. We will explore the six pre-determined variables and find out how they correlate with our definition of success.

Gender in the Workforce

The first variable, gender in the United States workforce, has been researched and discussed for centuries. For approximately the first two centuries of American history, both men and women occupied different societal roles: at home and in the workforce. Until the mid to late twentieth century, women were underrepresented in various sectors of the workforce, for a host of social, political, and cultural reasons. It would be interesting, in relation to our project, to see how organizations with gender diverse leadership affects success in terms of membership engagement.

Both World Wars marked extremely important starting points for women being allowed to join the labor force to aid in the war efforts. Especially during World War II, thousands of job opportunities opened to women as men went overseas and the need for wartime production increased (Green, 2000). Since that time, the growth rates of women workers have outpaced those of men consistently. This growth can easily be seen from the jump of their share of the labor market from 30% in 1950 to 47% in 2000 (Toossi, 2002). This shift of the balance carries important implications, with women participating in organizational leadership. Approximately 67% of all women in the United States are presently in the workforce (United States, 2014). It is interesting to note what roles these women hold in their respective organizations because, until recently, women typically did not obtain top positions in organizations and are still struggling to do so today. Statistically, women only hold about 14% of executive positions in the United States (Warner, 2014). However, increasing numbers of professional women in the latter half of

the twentieth century and the start of the twenty-first century suggest an upward trend for this percentage in the future. Today, women make up 51.5% of management and professionally related job positions (Statistical, 2014).

This is a welcome improvement because recent research has shown that imbalance of gender in organizations can alter the effectiveness of people occupying roles in those organizations. For example, a meta-analysis conducted in 1995 showed that roles defined as more masculine lead to men being more effective in those roles than women, and the same followed for roles defined as more feminine. Also, it displayed that men were more effective in leadership and subordinate roles overall due to the superiority of male numbers occupying these roles (Eagly, 1995). In organizations with a gender-imbalance, there might be pressure to conform to a stereotype, which is known as Stereotype Threat. These stereotypes about sex could limit the free-flowing of ideas and expression, which are a healthy part of organizational learning and growth (Steele, 1997). Therefore, a balance of gender in organizations might be vitally important to its success as a whole.

As women have gained more access to college-level education over the years, they have had greater opportunities for these management and professional careers. As more women join these careers and seek leadership positions, gender diversity increases. Based on reviews of company-based employee gender diversity, the next question to ask is how much more successful student-led organizations are when their leadership is gender diverse compared to not.

An organization's structure dictates roles its members will play and emphasizes the kind of leaders needed to fulfill these roles. The rising percentage of women holding

management and upper-level positions in the workplace brings into question, not only the gender makeup, but also the hierarchical structure of each respective position. The upper-level positions in hierarchical structures attract management-driven female and male employees in the workforce. In terms of hierarchy, an organization can be highly hierarchical, slightly hierarchical, or flat, which has an effect on how its employees function and succeed. This subject carries over to the management of student-led organizations in universities and college settings.

Organizational Hierarchy

From the time of single households and farms producing and selling goods to the first joint-stock companies and corporations in colonial times, the best way to maximize and structure an organization has been a subject of study. Since people are such an integral part of success for organizations, it is imperative to know how to direct them to bring about such success.

On the two ends of the hierarchical spectrum lie autocracy and holacracy. Traditional hierarchy, a lesser extreme on the side of autocracy, includes layers, silos, and separation of employees in its structure. Within autocracy, there are rigid structures and positions with narrowly defined goals and no ability to work outside of a set of parameters. Holacracy refers to the case in which everyone in an organization is self-governing and takes responsibility for delivering on the organization's purpose (Bailey, 2014). It features a complete breakdown of roles, positions and silos, and an even distribution of work between equal employees. In between the traditional hierarchy/holacracy ends of the spectrum, you can find traits and characteristics of each. Much research has gone into showing that humans will crave and create order because it

helps them to be more comfortable in the world around them (Galinsky, 2014). The question that then arises is what kind of organizational structure helps organizations achieve the greatest success.

One of the most celebrated and admired organizational psychologists, Rensis Likert, studied the differences in organizational hierarchies and their effects on organizational goals and success. Likert's major management theory separated these different relationships and hierarchies between the members of organizations into four distinct systems (Human Resource Contributors, 2014). The four systems are the exploitive authoritative system, the benevolent authoritative system, and the consultative and participative systems (Human Resource Contributors, Management Systems, 2014). Each system has a unique interaction between the superiors and subordinates. In the exploitive authoritative system, subordinates are expected to abide by all decisions reached by the management and have no say in the decision-making process. In the benevolent authoritative system, the power and authority is the same in the exploitive authoritative system, but subordinates are motivated by rewards instead of fear. The consultative system is one in which subordinates are motivated by rewards, as well as a slight say in the decision-making process, and the management uses subordinates' abilities constructively. In the participative system, which Likert himself theorized would be the goal towards which every organization should strive, superiors have complete trust and faith in their subordinates, encouraging a free flow of ideas and cooperation (Likert, 1967).

Using many of Likert's methodologies explained in *Human Organization: Its Management and Value*, we hope to discern which kind of organizational structures and

hierarchies are the most conducive to successful organizations. Education is very influential in shaping people's lives. Therefore, we are extending this study to determine which student organizations thrive and which struggle, based on any possible patterns of structure as well as other variables. We seek to gain insight on what factors, such as rigidity, fluidity, cooperation, and command, result in well-performing student led organizations at universities.

Although organizations may fall into one hierarchical structure, an influential leader can alter this. In the 1980s, Lee Iacocca drastically reworked the pre-existing political infrastructure of Chrysler Corporation to save it from the brink of bankruptcy (Tichy, 1984). His transformational leadership style allowed him to take control of a failing situation and change the company for the better. Hierarchy and structure are important to the overall success of an organization but, if failing, can be overcome by the leadership styles of its management and other influential members.

Leadership Styles

A leader's style sets the tone for how an organization operates and can often be separated into one or even multiple categories of emotional appeal and logical idealism. A few of the more prominent methods of leadership include tyrannical control, democratic organization, and laissez-faire methodology. The sole commonality of leaders is to streamline an organization to achieve a common goal. Social rights movements, warfare, and economic considerations are some singular causes to which a leader can unite and motivate an organization (Leaderships Styles, 2014). Motivation lies at the center of organizational command and leaders can employ one or a combination of methods such as coaching, pacesetting, commanding or charisma in order to gain and

inspire followers (Blanken, 2013). Followers and subordinates gravitate towards leaders that appeal to emotional or logical idealism (Cherry, 2014). Ultimately, leaders and subordinates must either be compatible in order to operate as a united front or they may suffer from an imbalance of power in order to be successful (Ahmad, 2008).

Autocratic leaders set rules, make all the decisions and expect their orders to be followed. They are undisputed and have visions of how desired end goals are to be achieved. Essentially, an autocratic leader can be defined as a tyrant that appeals to hatred and fear for motivation (Leadership Styles, 2014). Leaders like King Henry VIII and Adolf Hitler provide pre-eminent examples of autocratic leadership. King Henry VIII ruled by divine right and broke ties with the Catholic Church in order to divorce his wives. He ruled through intimidation (Henry, 2014). Similarly, Hitler appealed to an autocratic leadership style. Through charismatic language, Hitler espoused views of a eugenics movement that appealed to specific racial sects within the German power structure. He gained authority over every aspect of his organization. People were motivated by fear, discrimination and elitism to follow his ideals (Hitler, 2014). Although these men were powerful leaders, the autocratic or tyrannical rule has a negative connotation because it does not encourage growth through creativity or discussion.

In contrast to autocratic rule, democratic leadership is constructed by the idea of many people working together to find a solution. Though democracy is often misconstrued as having an equalized leadership hierarchy, there is often a singular leader who unites and motivates the masses by appealing to the idea that each member of the organization can contribute equally to a cause. In democratic rule, subordinates can in turn become leaders through action and originality (Cherry, 2014). The leader relies on a

group of educated individuals to give him or her different perspectives on how to handle situations. This style is commonly used so that the decisions made benefit the majority (Cherry 2014). The United States government runs as a democratic republic, where the President, House of Representatives and Senate can only pass laws if the other body approves the law. Essentially, democratic leadership appeals to an equal distribution or balance of power.

Martin Luther King Junior was a democratic leader. He was a figurehead of an organization, which preached nonviolent demonstrations against racism. He motivated his followers by setting an example for how they should act in difficult situation, and gained their respect through his powerful charisma. He aided other members of his movement to become leaders, such as Rosa Parks. The organization had a goal and a way of achieving it, but also allowed its members to act as individuals with their own creativity and ability to make a change.

Laissez-Faire leadership is a hands-off approach to operating a system. The subordinates must fix their own problems, meet deadlines, and produce product without concrete directions or aid. This style works best when a company employs creative, independent individuals who produce innovative products on their own or by some collaboration (Blanken, 2013). Warren Buffet, a famous business investor and entrepreneur, has been successful in using this style of leadership with his managers. The people he hires are highly skilled, independent and motivated which enables the business to thrive (Cherry, 2014). Please look at the table below to compare the three styles of leadership.

Table 1 Methods of Leadership

	Tyrannical Control	Democratic Organization	Laissez-Faire Methodology
Purpose	- Streamline an organization to achieve a common goal.	- Streamline an organization to achieve a common goal. - Makes decisions to aid the majority.	- Streamline an organization to achieve a common goal.
The Leader	- Sets rule - Make all the decisions - Expect their orders to be followed	- Unites and motivates masses by appealing to the idea that each member of the organization can contribute equally to a cause.	- Creates an environment where subordinates must fix their own problems, meet deadlines, and produce product without concrete directions or aid
Motivates Subordinates	- Through: fear, criticism, Intimidation, elitism, and discrimination	- Subordinates are encouraged to become leaders through actions and creativity.	- Subordinates are creative, independent individuals with their own drive.
Connotation	- Negative	- Positive	- Positive but does not work for everyone
Examples Leaders or Organizations	- King Henry VIII - Adolf Hitler	- United States Government - Martin Luther King Junior	- Warren Buffet

Some leaders like to motivate their subordinates by coaching. Coaching occurs when a person with experience in a specific field uses their skill and expertise to support and train a pupil so that they can achieve a specific goal. People must be educated or trained before they can operate and carry out orders. Coaches can try to ask questions which guide their pupils to a goal. Coaches can also take a more common approach of acknowledging performance, by doling out praise and criticism (Coaching, 2011). Praise shows appreciation for carrying out orders well, and criticism enables people to see what they are doing wrong and work to gain approval. Coaching on a smaller scale, rather than the full out reward-punishment system employed by many autocrats, allows people room

for improvement (Cherry, 2014). A reward-punishment system is also popular commanding people to perform a task. It does not mandate how the work is done, only that it must meet such standards (Cherry, 2014).

Subordinates will respond differently to diverse methods. Some will thrive under harsh criticism, while others need constant praise. In athletics, Olympians such as Michael Phelps and Shaun White like coaches who challenge them by encouraging them to endure intense physical pain from hard workouts, which push them past their limits (Phelps, 2014). Bethany Hamilton, a professional surfer, learned how to use her body without an arm after losing it in a shark attack when she was 13. She was able to overcome her injury and fear of surfing in the ocean by constant encouragement and praise (Bogursky, 2014). Physical training is different from organizational success due to coaching but it sets the precedence that different people respond better to different methods of motivation.

Organizations are structured around their leaders who are seen as role models. If a leader is demanding, critical and encourages competition within an organization, the organization will embody these ideals. If a leader is respectful, encouraging and holds its workers to a higher standard of work, a more relaxed environment will exist. Coaching is about passing on techniques, experiences and aid. Leadership is about guiding and creating a successful business structure. Both have similarity and leaders can be seen as a kind of coach to subordinates.

Great leaders have used all of these methods and techniques. All have certain pitfalls and positive qualities. In order to be an effective leader, a little of each technique should be used. Leaders incorporate the best aspect of each style by making decisions

quickly when needed, consulting with other educated individuals, and giving their subordinates time and space to exercise their creativity. It would also be recommended for leaders to identify with their subordinates, motivate them through encouraging speeches, educate them in new idea or ways of thinking and make them strive for approval. Great leaders can yield both positive and negative results. Autocratic or tyrannical rules can yield positive results for an organization, yet negative results for the masses, because the ruler's vision is not up for discussion nor created to benefit the masses. When a majority of citizen's benefit and the organization achieves ethical goals, positive results are viable. This tends to occur due to democratic or laissez-faire leadership practices. In these practices, decisions are aided through creativity and freedom of collaboration, while the leader makes the final decision. To further evaluate a leader one must look at the characteristics and traits, which leaders tend to possess. This knowledge will continue to aid researchers in finding how to improve organizations and enable leaders to understand what they can do to promote growth from their organizations.

Characteristics and Traits of a Leader

Society defines leaders in many different ways, but more often than not they can be identified through similar traits they all share. Robert K. Greenleaf, founder of the modern Servant leadership movement and the Greenleaf Center for Servant Leadership, said, "Leadership must first and foremost meet the needs of others". In order to be a leader that speaks for and serves all who follow him or her, known as a servant leader, a person must have the ten characteristics listed below, in particular. These characteristics are listening, empathy, healing, awareness, persuasion, conceptualization, foresight,

stewardship, commitment to the growth of people, and building community (Spears, 2010).

The first characteristic, listening, refers to leaders voicing the opinions of the group whether they are said or unsaid, and even reflecting on their own thoughts and opinions. Empathy pertains to understanding and accepting others for who they are, what unique abilities they have and assuming the best in their colleagues. Healing is an important tool for a leader to possess. Leaders may heal their relationships as well as others', which could have a huge effect on their environment. The next characteristic, awareness, pertains to leaders' self-awareness of their values and ethics. This also means being cognizant of what is going in the organization in general. Persuasion refers to a leader's ability to influence a group rather than relying solely on his or her position and title for people to follow. Leaders conceptualize by thinking beyond the present and working towards long term goals. Foresight is related to conceptualization because leaders must use their past experiences and intuition to understand the likely future outcome of a decision. Stewardship and servant leadership correspond with one another, where a leader must serve those around them and create an open environment. In addition, a leader has a commitment to the growth of the people in their organization individually as well as a whole. Leaders build a community in their institution and with others (Spears, 2010).

Table 2: Spears' Characteristics of Servant Leadership

Characteristic	Description
Listening	A leader voices the opinions of the group whether they are said or unsaid, and even reflects on his or her own thoughts and opinions.
Empathy	A leader understands and accepts others for who they are, what unique abilities they have and assumes the best in their colleagues
Healing	A leader may heal their relationships as well as others', which could have a huge effect on his or her environment
Awareness	A leader's self-awareness of their values and ethics
Persuasion	A leader's ability to influence a group rather than relying solely on their position and title for people to follow him or her.
Conceptualization	A leader thinks beyond the present and works towards long-term goals.
Foresight	A leader uses his or her past experiences and intuition to understand the likely future outcome of a decision.
Stewardship	A leader must serve those around them and create an open environment
Commitment to the growth of people	A leader has a commitment to the growth of the people in their organization individually as well as a whole
Building community	A leader builds a community in his or her institution and with others

Researchers have also discovered that personality traits of leaders influence the degree of success of a leader. Gary Yukl (2002), a professor of management and leadership at the State University of New York, states that the five most influential traits that determine success are a leader's "energy levels and stress tolerance, self-confidence, internal control orientation, emotional maturity and integrity". Other traits recognized in effective leaders include dominance, such as the ability to take the lead; intelligence, which is being able to think clearly; flexibility, meaning adjusting to situations as they come along; and sensitivity to others, such as working with someone individually versus in a group and understanding this distinction ("Personality Traits of Leaders", n.d.)

Table 3: Traits Recognized in Effective and Influential Leaders

Trait	Description
Energy levels and stress tolerance	A leader showing high energy levels and stress tolerance will cause others to be inspired and believe that they can do the same.
Self-confidence	A leader needs confidence in him/herself and their abilities.
Internal control orientation	A leader can believe he/she can affect the environment
Emotional maturity	A leader has control over his/her own emotions.
Integrity	A leader is honest and has strong moral principles.
Dominance	A leader has the ability to take the lead.
Intelligence	A leader can think clearly.
Flexibility	A leader can adjust to situations as they come along
Sensitivity to others	A leader has the ability to work with someone individually versus in a group and understand this distinction

While there are many characteristics of successful leaders that have been researched, they all seem to have the same theme of serving those who follow them, having self-confidence, influencing but not controlling others, and being able to learn from and work with situations in the past, present and future. How a leader interacts with his/her organization may influence how engaged its members remain. Therefore, we are interested in learning what characteristics and traits are essential to a leader. This project will examine what characteristics students have that take leadership roles in their organizations as well as provide recommendations on what types of people should fill these roles. While every leader may be different, the most effective leaders present most, if not all, of these characteristics and traits.

The Role of Values in Leadership

How a leader uses his or her compelling characteristics and traits in alignment with their values is important to analyzing what makes an eminent leader. Values are known as the guidelines and beliefs by which an organization bases its practices. Leaders can influence how steadfast their followers, within an organization, abide by these values (Russell, 2001). Leaders are responsible for relating the importance of organization values to its members. They provide direction to their organizations by aiding in setting goals and objectives, while at the same time serving as a role model in displaying these values (Grojean et al., 2004). Throughout each stage of an organization's "life cycle", leaders shape the environment by displaying policies and procedures through their own actions. These leaders need to understand their own beliefs before effectively communicating and clarifying organizational values (Russell, 2001). Leaders

progress through companies through transition as described by the Leadership Pipeline. As leaders move up the Leadership Pipeline (as shown in Figure 2 below), a model that aids organizations in growing internal leaders at every stage, values may need to shift in order to become effective leaders (Manktelow n.d.).



Figure 2: The Leadership Pipeline Model

Manktelow, CEO of a leading learning management system known as Mind Tools, stated “Each leadership stage needs different skill-sets and values, and, at each transition, leaders have to develop these in order to lead successfully.” An organizations values of progressing leadership by using the Leadership Pipeline may also set a company apart because this model grows leaders internally and identifies future leaders (Manktelow n.d.). Following this model can affect whether or not an organization becomes successful. Companies that are more serious about following their values and actually doing so, tend to do better than their competition (Pendleton & King, 2002).

Members may be unsure what their organization stands for, so this clarity will not only guide members, but also empower them. Values influence behavior because people in an organization want to act consistently with what is desired. Schwartz (1994), a social psychologist and cross-cultural researcher, provided four viewpoints on how values link with behavior. The first describes values as being cognitive structures that reinforce the interests of some aspect of an environment. The second portrays values as motivating behavior because they give people drive and reason for their actions. The third refers to values as standards for actions, in order to determine whether or not they are right and justifiable. The fourth and last perspective, explains values are acquired through unique life experiences in addition to socializing (Grojean et al., 2004).

In our research, we aim to identify how organizations follow and communicate their individual values. We will examine how leaders embody their values as role models and influence their organizations. These leaders are key influencers of what direction in which the group will move. In addition, the project will look at the motivation behind members aligning their actions with individual and group values.

Ethics in Business

In the past 30 years, ethics has become an object of scrutiny (Calman, 2004). Ethics is a set of moral principles or rules of conduct, which demands a level of respect and charity towards others. Business ethics is a set of responsibilities an organization has to various stakeholders, and can be enforced by government laws. Businesses are obligated to take care of their workers, to limit the pollution they cause their environment, to distribute a legitimate service or good, and to produce safe products (Finn, 2014). The primary focus of many businesses is to make a profit, but in a society

filled with companies all producing similar goods, the stress of competition and profit can overpower ethical practices. Even non-profit businesses in a way are trying to make a profit. The more money they can bring to the organization, the better chance of expansion and spreading their cause; so instead of going back to shareholders, their “profit” typically goes to their cause or back into the business. Organizations must take into consideration that their reputation can destroy or aid their ambitions. Leaders in business who practice ethics rather than operate for profit have been proven to achieve more profit wise than those who disregard their ethical guidelines (Gregg, 2011).

Businesses in the United States are legally obligated to pay workers minimum wage, to give workers benefits, and to limit the amount of hours one can work. The service they provide, such as investments, must be legitimate. This means the company cannot embezzle, steal customers' money or conduct any illegal activities (Business Ethics, 2014). The products they produce must be made in a safe setting, have passed food and drug safety tests, and must not cause potential harm to any customer or worker. BP Global, for example, is a corporation that did not practice trustworthy ethics. BP Global destroyed a natural habitat and sequentially shut down a plethora of other companies who made their living off the coast. BP now faces years of lawsuits, and it is ordered to pay and aid in the cleanup of oil in the Gulf of Mexico.

In order to keep companies from conducting unethical acts, laws have been passed and enforced. These laws include environmental regulation laws, labor laws, intellectual property laws, and financial laws. Specifically the Clean Air and Water Act, the Sarbanes-Oxley Act of 2002 and the Federal Sentencing guidelines were created to help enforce ethical behavior (Sarbanes-Oxley Act, 2006). The only drawback to passing

legislature is that, in some cases, laws monitoring illegal behavior are not passed until misconduct has transpired.

Ethics is a complicated standard of operation to regulate. The United States Government defines corporations as “persons”, which allows large powerful businesses to be prosecuted and held responsible for their actions. Though legal ramifications will continue to encourage ethical practices, the best motivation for a company to be ethical is preservation of their reputation (Business Ethics, 2014).

The success of an organization, in the short term, can occur in an unethical fashion. Enron became an empire of a company through fraud. They dominated for about 30 years making profits in the billions and then filed for bankruptcy in 2001. Enron gives a very good example of how a company cannot last in the long run and continue to achieve substantial economic feats, if it acts unethically.

Behavior of a leader of an organization, whether ethical or unethical, can influence the organization’s reputation. Reputation, like quality of a product, can influence the consumer. Without looking at the legal side of things, ethical behavior can aid a company. If a company steals ideas from another, lacks quality products, or is known to be discriminative to certain customers, customers are less likely to want to purchase their goods. Barilla pasta made a commercial about a year ago, which proclaimed that the brand was anti-gay. This was not illegal but unethical in the sense that is wrongly discriminated against a group of people (Daily News, 2013). That brand suffered losses in profit because of their stance on gay individuals. Ethical behavior can aid or hinder a company’s reputation and hurt their chances of success in our competitive world.

In looking at individuals like Martha Stewart, Bill Gates, and John Kennedy we can evaluate the idea of a leader of a brand. These individuals sell an idea of themselves to the public. They each have reputations, which can hinder or support their brand. Ethical behavior tends to enhance a brand, because it creates a positive image or association with a product or leader. People can also be attracted by vices such as greed and power, which can be unethical practices. Hitler and Martin Luther King Jr. both had support from the masses, yet Hitler's reign ended after a short time, while Martin Luther King Jr.'s message is still used in today's society.

Ethics is a complex and ambiguous topic, but research has shown that power can come to leaders with both unethical and ethical practices. A leader is said to be a person who leads by example. He or she is trusted or feared by the people around them to make difficult decisions. If a leader has no care for their organization and shows disregard for rules, so will his or her subordinates. This can cause a downward spiral of an organization. Ethical characteristics often support and enhance an organization and its leaders for far longer than unethical practices (Duggan, 2014). The leaders who succeed in the long run tend to have innovative ideas and a moral way of achieving their goals.

Implications

This MQP team has developed a foundation for evaluating student led organizations by viewing these initial six variables. We conducted this research so that when we begin interviewing and surveying organizations at WPI we can better understand how they work. We can see how many women are in an organization and how many have leadership roles. Our team can view which organizations use a democratic, authoritative or laissez-faire leadership style and how they seem to work for them. Our

analysis will examine what specific traits leaders in these organizations possess and how they hinder or contribute to their organizations. We can look at how the organization is structured and identify which hierarchy of the members seems to yield productivity. All of these variables are intricate and can be evaluated subjectively or objectively. In looking at the research we have gathered, we have determined that measuring the roles of values in leadership and ethics will not truly aid our project. These two variables are viewed differently by masses of people and will take our project off base. They would require us to try to define positive ethics and correct values as well as determine if someone is ethical or has sound values. Therefore, we will be taking out these two variables.

We will be taking a closer look at the remaining four variables, which are gender, hierarchy structures, leadership styles, and characteristics and traits of a leader in our studies and data collection. We have created four hypotheses from this research, which we will use as a foundation for our methodology. For the variable organizational hierarchy, we believe organizations with a flatter, more collaborative hierarchy will experience increased membership engagement. In the case of gender, we foresee that organizations wherein the executive/leadership board is split evenly between males and females will have higher levels of membership engagement than those with executive boards comprised majority of either males or females. When looking at leadership styles, we hypothesize that organizations with a participatory leadership style tend to experience increased membership engagement. In analyzing characteristics and traits of a leader, we purpose that successful leaders of an organization in terms of engaging members would

each have more than half of the 19 characteristics and traits identified through our research in the literature review.

The statistical analysis will correlate which organizations are more successful and why. This background enables us to see what other researchers have found which gives us a comparison for our findings to these preconceptions. Every study presents novel and intriguing findings that can aid in future studies in every field. Therefore, utilizing past research and collecting new information is the best way to progress in understanding.

Methodology

Introduction

Our project will focus on student-led organizations at Worcester Polytechnic Institute. We aim to explore the correlation between organizational variables and success, by conducting several methods of data collection in a sample of student-led organizations. We will study the effects of the following predetermined variables: gender in the workforce, organizational hierarchy, leadership styles, and characteristics and traits of a leader. These variables have been defined and discussed in the Literature Review. Our exploratory research will allow us to discover what variables might be important to the success or failure of student-led organizations. For the purposes of the study, a representative sample of 20 organizations out of 173 organizations will be chosen using stratified sampling. We will utilize various electronic and non-electronic methods to gather data for our analysis. Electronically, we will send surveys online to the chosen organizations and their leaders. Our non-electronic methods will include in-person interviews with executives and focus groups with a sample of executive members chosen from the aggregate of sample organizations. In our exploratory research, we will use three major data collection methods: surveys, interviews, and focus groups. Throughout this methodology, we hope to gather data for analysis and conclude which of the predetermined variables significantly impacts successful student organizations under our definition of success. A brief overview of the analysis of data collected will be discussed in each method's respective section. Further detailed analysis will be explained in the Data Analysis section once survey, interview, and focus group data has been collected.

As part of this MQP, all three team members have successfully completed and been certified in the National Institute of Health's "Protecting Human Research Participants" course. We gained a base knowledge of how to treat all people with whom we will interact during this MQP, as most of our data will come from people, in a safe, healthy, and productive way. Participants will mostly fall into those in student-led organizations, but will include several other staff and community members of WPI. We acquired this knowledge to learn how to properly interact with all those involved in the study. We have also utilized various sources to understand proper focus group methods, survey methods, and interview methods, to ensure the information we are obtaining is done so in a correct way. We referenced sources such as Irving Seidman's book on interview methods, Arlene Fink's book on survey methods, and Krueger & Casey's book on focus groups. While these were not the only sources we used for our methodology, they were excellent beginner's guides. All team members have used most of these methods for various classes at WPI as well as in our Interactive Qualifying Projects (IQPs) completed the previous academic year. For the purposes of the project, these beginner's guides to research are sufficient to allow us to conduct our data collection and analysis for our final report. We are not professional researchers, but we feel that we have enough experience as beginning researchers to conduct a thoughtful and potentially impactful research MQP. The following sections detail the methods of data collection and analysis.

Organization Sampling

We will select a sample size of 20 organizations from those recognized by WPI's Student Activities Office. We will obtain a list of these organizations from the office and remove those that are Greek or Greek affiliated. Greek organizations will be omitted because chapters follow procedures that are established nationally and internationally rather than WPI procedures alone, which can skew our results. The list will be divided into categories as determined by the office. From this population, we will apply stratified sampling to ensure proportional sampling from each category. Otherwise, a highly populated category would receive the same representation as a lesser populated category. Stratified sampling is a method to sample from a population based on the proportional size of each category in the population. It is based applying the percentage representation of each category to the desired sample size, resulting in an equally proportional sample size of each category. After we obtain the number of organizations from each category, we will randomize the organizations for fair selection.

Surveys

We will survey members of student-led organizations in order to gain insight into the success of their organization. The surveys we will provide will all have the same questions and will be available to all members of each organization we will be studying. We will request access to organizations alias's during our interviews with the presidents of the organizations. This option is advantageous to us because we can send out the email to the organizations ourselves and have control of how many times it is sent out. The only significant drawback to us sending out the email to the alias is that members are not familiar with us, which may affect response rates.

Due to the format of the survey, this data will be objective and easily quantifiable (Fink, p.29-31, 2009). Using a survey method to collect data gives us a great foundation statistically for analysis and drawing conclusions. The questions on the survey will be chosen with care and as a result of our research. The questions will be as minimally biased as possible, and will be informative (Fink, p.13-14, 2009).

These surveys will be conducted with informed consent. All survey questions and material will be submitted to, reviewed, and approved by the institution's IRB board. This includes the introductory email to chosen organizations, the survey questions sent to these organizations, as well as the interview questions used during our focus groups discussed in the next section. After approval, we will follow procedure in line with any regulations the IRB requires during the process. Accordingly, all candidates will understand that their answers are confidential and the material we use from the surveys will remain anonymous and secure. This will encourage people to answer the questions honestly and fully. The more detailed information we gather, the more relevant and pertinent our analysis will become.

We will use renowned and informative scales designed by scholars such as Rensis Likert. The scales and questions will focus on the variables: gender in the workforce, organizational hierarchy, leadership styles, and characteristics and traits of a leader. In total the questions on the survey will be created uniquely to the situation we as an MQP team are investigating, mainly student-led organizations on WPI's campus. Even so we will have referenced other surveys, scales, and other general survey materials to help create our survey. As mentioned above, famous surveys will be referenced such as those

done by Likert, as well as, more contemporary works and material such as the Turknett Leadership Group, and Donald Clark.

We will keep the surveys concise and understandable, so we will gain a sizable amount of information, while encouraging people to devote only a small portion of their valuable time to aid our project (Fink, p.36-39, 2009). We will survey the groups from our sample of 20 organizations who have expressed willingness to aid our study.

We will encourage participants to complete this survey to try to achieve a high response rate, by offering to share results and analysis with participants following completion of the project. We will also employ several tactics as described shortly. A response rate is the percentage of people who complete our survey. It is determined by dividing the number of completed survey by the number of people contacted. It is important to have an acceptable response rate so that we can better make associations later when analyzing the data. We are aiming for the average response rate for online surveys, which is 30% (Response Rates, 2007). A response rate above average will certainly be accepted as this will increase representation of members. If we do fall below this response rate, we will make note of the final percentage in the results, to provide readers with an informed understanding of the representation provided.

There were specific reasons as to why online surveys were chosen over various other forms of survey taking such as in person surveys and phone surveys. At WPI most of the students are comfortable with the Internet. They are busy with short seven week terms and are highly involved in extracurricular activities. Due to the length of the survey and the large sample size we are trying to reach, it would be easiest for our subjects to complete the survey at their own convenience on their own time. Phone interviews again

were deemed to be too much of an inconvenience, not to mention the fact that it would be difficult to collect the data on the scale we are hoping to acquire through phones, since it would have to be one person at a time. There was also a similar concern with in-person survey taking for getting participants to be at a specific location at specific times, and shares many of the same problems with phone surveys. Therefore, the electronic survey is our best option because it allows those being surveyed to take it at their convenience, which saves time for them and will garner more participation in the survey.

We will try to increase our response rate through a number of tactics, as recommended by the University of Texas's Instructional Assessment Resources. We will send out the survey as far in advance as possible (Response Rates, 2007). Participants will have two weeks to complete the survey. We will also send out reminders, with the link provided, to help people remember to take the survey before our deadline. Additionally, our instructions will be clear and easy to read, so participants will have an easy time answering questions throughout our survey (Response Rates, 2007).

Once the information is gathered we will statistically analyze the findings. We will draw conclusions by analyzing the collected data and statistically correlate why certain organizations are more successful than others. Correlations will be made by gathering data on what organizations are more successful than others and how those respective organizations structure themselves in terms of the predetermined variables. If required, qualitative data can be transformed to numerical data for statistical calculations. For example, the variable of gender can be expressed as "female=0" and "male=1", or each gender can be shown as a percentage of the organization's overall membership. Success of the organization will be determined by a section of survey questions on

membership engagement that will be numerically scaled. With these methods, the correlation between an organization's success and predetermined variables can be calculated and determined. Following calculations, we will then make recommendations from our findings for other organizations in order to aid them to become more prosperous.

Focus Groups

Another method we will use is focus groups, which are small gatherings of individuals within the study who have a gently guided conversation about the project (Kitzinger, 1995).

Focus groups have a lot of components including:

- The participants
- The moderator
- The setting
- How data is obtained
- The analysis

It is good to use focus groups when you are looking for a range of feelings participants have on a given topic and looking for perspectives from different groups (Krueger & Casey, 2008). This is why we chose to include focus groups in our study.

The participants in our study will be made aware that all answers are confidential and they may leave at any time. We will submit a plan of what we plan to discuss in the focus groups to the IRB (Krueger & Casey, 2008). In our case the focus groups will discuss how leaders in these organizations would utilize our results. In addition, we would like to gather information on the best form of recommendation accessibility.

The focus group studies will be conducted in a comfortable environment for participants to feel relaxed. There will be 4 to 8 participants per focus group study, which is ideal for focus group studies (Kitzinger, 1995). We will gather our participants by contacting executive members of the 20 organizations we are sampling. We will conduct 3 to 4 focus groups in total. We feel this will be the point at which we no longer gain new insights, therefore reaching saturation. We will conduct a single category design (Krueger & Casey, 2008). Even though we are looking at many organizations, we are focusing on particular participants. These participants are executive members of these organizations.

As a motivation to complete the focus groups, all participants will receive certain incentives during participation and following completion of the activity. We have decided that every student executive participant will be provided pizza and soda during the focus groups. Following the completion of their participation, they will receive a \$20 Amazon gift card as well. We feel that this is an appropriate course of action to incentivize and thank our participants for their time.

Focus groups are beneficial to our study because of the environment they create. Focus groups allow shy participants to freely speak and discuss on a topic without having to do so one on one like in an interview. Another benefit to having a focus group for this study is that it may engage people who are usually closed off or unresponsive (Kitzinger, 1995). Our focus is on getting the opinions of executives in how they would like to receive and view our data results in the near future. We would also like learn what challenges they have and are facing, so we can provide the best recommendations possible.

We will have a moderator and assistant moderator. The moderator will flow the conversations and questions. The assistant moderator will make sure to summarize main points, help where needed and help with the recording of the sessions. The assistant will also help debrief the focus groups. These group discussions will be recorded and transcribed for analysis. We will do a notes-based analysis. The assistant moderator's notes will be used as an abridged version of the focus group, while the audio is used as back up. Due to the time we have to perform the focus groups, this is our best way to gain insightful information because the advantage to this type of analysis is speed (Krueger & Casey, 2008).

Interviews

Interviews are promising to our study because they enable us to gain perspective from participants with great leadership experience in a one-on-one setting. This helps our team to get individual backgrounds, thoughts and experiences, that would we would otherwise be unable to receive.

We will use a script in questioning our interviewees because this will help us remember where we want to guide our interview. We will have the participant also sign an informed consent form. We will begin with background questions and then move from easier questions to more difficult ones. We will make prompts by asking a broader question, and then have specific points under those questions to make sure the participant answers what we would like answered. This will help us make the interview more focused (Jacob & Furgerson, 2012). We will be asking participants open-ended questions and have our questions follow the flow of the conversation (Seidman, 2006). We will work to keep interviews within 30 minutes to make sure we do not make it too long for

the participant. We will tell the participants when we are getting close to the end of this time block so that they can wrap up what they are saying. We will also ask if they would be willing to answer any remaining questions, if there are any, through email or by staying a few extra minutes. In addition we will ask them if we can contact them if we have any future questions. We will also have the interview take place in a quiet area to better hear and record answers to questions (Jacob & Furgerson, 2012).

We will be contacting students, and faculty for interviews. Our methodology for interviews stems from research we have conducted on how to handle, interpret, analyze, and share the interview data. Mainly, we will focus our methodology on how we will collect and store data.

After doing some research on interviewing methodology and techniques we feel prepared on how to handle, interpret, analyze, and share the interview data. We will keep all interview data, such as the transcripts, safely organized on our computers, which will have password protection, deterring unwanted persons from having access. We also plan to conduct all interviews before the analysis so as to avoid any carryover of ideas from an analysis of a preceding interview that might affect its following interview. This way, all candidates of interest will receive consistent, similar interviews to each other (Seidman, 2006). For data collection, we plan to record the interviews with an audio-recording device to maintain a reference in case of confusion or the need to prove certain points. This will maintain an audio transcript that lives up to the interviewed person's real words, thoughts, and expressions (Seidman, 2006).

As stated, we will interview WPI students, faculty, and administration. From WPI, we will contact the presidents from the 20 organizations in our sample to obtain

information about their organization regarding our variables, membership engagement, and challenges and successes within their organization. We will also gather aliases for their executive councils and general body email accounts for the purposes of reaching out for surveys and focus groups. In addition to students, we will be contacting WPI administration and Student Activities personnel. The WPI faculty members we will be interviewing will give a glance at their experiences with successful and unsuccessful organizations at WPI. The Student Activities personnel work with student-led organizations on campus, and will have great insight for us in regards to how groups of people have been successful or unsuccessful in the WPI community.

We would like to talk to these individuals to gain their perspective on how students grow here on campus. We hope to hear about some of their experiences with groups, to understand and be given examples of what they found did and did not work. The reason we have selected to interview these individuals is because they have interacted with students and student-led organization on WPI's campus for year, and will have invaluable insight for our research. The better we understand how groups have thrived and overcome obstacles in the past, the better prepared we will be in evaluating and identifying steps taken in becoming a successful organization. Due to time and availability we will be primarily focusing our study on the WPI community.

Content Analysis

For the sake of transcription, words and phrases will be recorded as exactly as possible within reasonable human error, to provide easy access so that the audio files will not be required for all clarification or quotation purposes. During analysis, team members will analyze the interview data and focus group data collected. Sections for the focus

group transcripts deemed “important” will be bracketed off to later create thematic connections. Interviews will be similar to focus groups in that there will be audio recordings for clarification. This data will be displayed once collected in a chart format in order to allow readers to have a clear representation of our themes for interviews and focus groups (Seidman, 2006).

Implementation

In order to obtain data we must perform interviews, survey organization members, and conduct focus groups. First, we will send out an email to the selected organizations asking them to be part of our study. In order to do this we must send this email, our survey, interview, and focus group questions to the IRB in order to have them approved. Once they are approved we can start conducting our research.

We will be conducting interviews for approximately thirty minutes with the presidents of the selected organizations to ask them questions about why their organization and how it is successful. We will monitor the time closely and make our interviewees aware when we are close to the end. If we are close to the end and have a few remaining questions, we will ask if they would be willing to answer the questions over email, meet with us once more or spend a few more minutes answering the remaining questions.

Once we are in contact with the presidents of the selected organizations we will send out a survey to their members encouraging them to give us their feedback. We will motivate members to participate in our focus groups by providing rewards such as Amazon gift cards and pizza. In addition, we will encourage members and presidents to participate in the survey or interviews by relaying the benefits of what our research could

find for their organization. The more members who participate the more information we will gain and the better off we will be in drawing conclusions and making recommendations to these organizations.

Implications

We will be conducting our study at Worcester Polytechnic Institute with student-led organizations. During this time we will store all research, surveys, and data on password-protected computers. We will survey members of organizations to gain their feedback for what is and isn't working in their organizations. We will interview students, faculty members, and renowned companies in order to gain knowledge about how different groups function and what people believe aid success in an establishment. We will conduct focus groups in order to start a discussion on leadership, membership engagement and variables that lead to organizational success. After we have gathered all of this data, we will analyze our findings to determine what we have found to be the best ways of achieving success. From there, we will make recommendations to these groups about their leadership.

We will provide a list of recommendations and a model for what makes an organization successful. The information from our survey, interviews and focus groups will be used in our analysis to determine what variables are most influential in correlation to success, which in this case is membership engagement. By comparing organizations' leadership styles, characteristics and traits of leaders, organizational hierarchy, and gender, we will be able to recommend common trends within successful organizations and provide these generalizations as part of our recommendations. The model will be used to define the ideal organization, including type of leader that is needed, the

leadership styles that are most influential in student organizations, if gender has a roll on the leadership within an organization and the type of organizational hierarchy that may work best for organizations. We will make correlations to find what is statistically significant between these variables and membership engagement in order to provide credible evidence of associations between these variables.

The findings will provide a great deal of insight for student-led organizations. Organizations can use our findings to revamp the current processes within their organizations. They can use the model as a guide to what aspects within the organization need to change in order to become more successful. They can look at the leaders within their organization and provide a basis to determine who the best leaders to run for a position may be within the group by just outlining the characteristics and traits needed. The leaders that hold positions could also use these recommendations to change how they become more influential leaders through their leadership styles. As a whole, the recommendations and model will help leaders on campus become stronger and more successful as leaders, while at the same time help organizations become more successful. This would also be useful for up-and-coming students to reference if they decide to start their own organization, and therefore will have a guideline of how to start-up a successful organization.

Procedures

Organization Sampling

In order to develop a sample of student-led organizations at WPI, we received the most recent list of organizations recognized by the school from the Students Activities Office. We removed Greek organizations and Greek-affiliated organizations, as we chose not to study these, which left us with a base population of 173 student-led organizations. In order to accurately represent each category of organization fairly, we applied the method of stratified sampling. We sorted organizations based on categories as defined by WPI. We then calculated the amount of organizations within a category based on the category's percentage of the total organization population. For example, there are 37 Club Sports at WPI, which represent approximately 21.4% of the total population. We initially chose a sample size of 20 organizations because this would represent over 10% of the total population and leave room for variation. Thus, Club Sports would represent 21.4% of this sample, which resulted in our sample including four Club Sports organizations.

This method was applied to every category type, as can be seen in the Appendix F. A few categories resulted in no representation, because the resulting sample effectively rounded down to zero. Therefore, "Media" and "Publications and Literature" were not included in our sample size. Upon our final calculations, we ended up selecting a sample size of 21 organizations in order to more accurately represent the population based on our stratified sampling calculations. Once it was determined how many organizations from each category would be selected, we utilized Excel to randomize the list of organizations in each category and chose the top organizations listed based on the sample percentages

for each category. This ensured random sampling for each category and prevented personal bias from the MQP team. For the purposes of confidentiality, the organizations selected will be referred to in the following method: Organization A, Organization B, and so forth.

Interviews

In gathering data we interviewed WPI administration, WPI Student Activities Personnel, and presidents of student led organizations. Our MQP team set up times and places to meet individually with all these individuals. The interviews were recorded with the consent of the individuals being interviewed. Subsequently, notes were taken throughout the interview. The individuals were told their name and position would remain confidential and anonymous in the final report.

Interviews with Administration:

In order to set up an interview time, we contacted six WPI Administrators through email. The email sent to the administrators can be viewed in Appendix G. All of these interviews were recorded and protected. The questions centered on their experiences with successful and unsuccessful leaders and organizations on WPI's campus. The WPI administration questions and protocol for the interview can be found in Appendix D.

Interviews with Student Activities Personnel:

We sent emails to WPI Student Activities Personnel, in order to set up interviews. The email can be viewed in Appendix H. All of these interviews were recorded and protected. The questions that were asked focused on how these individuals aid and foster leaders and organizations on the WPI campus. The Student Activities Personnel shared their experiences with leaders and organizations on campus. They gave examples of weak

and strong organizations. In addition, they explained why organizations were one way vs. another as well as how they could improve or continue succeeding. The WPI Student Activities Personnel interview procedure and questions can be found in Appendix C.

Interviews with Presidents of WPI Student Led Organizations:

In order to set up an interview time, we sent out an email to the presidents of the twenty-one randomly chosen organizations. The email can be viewed in Appendix A. We met with the presidents to gather background information on their organization to understand how their processes relate to our pre-determined variables. Additionally, we asked for consent to contact the president's organization for participation in our focus groups and survey. The interview Questions and procedure for the presidents of organizations can be found in Appendix B. All of these interviews were recorded and protected.

Surveys

As mentioned in the methodology, we as an MQP team distributed surveys out to organizations that agreed to participate in them in our sample. The survey itself was constructed first on Microsoft Word and then transferred to Qualtrics for ease of data collection and analysis. It underwent many revisions until it was deemed to be ready to be launched. To make sure the questions were understandable and that there would be no overt problems in regards to completing the survey a pretest was done with a small convenience sampling of other WPI students. After the pretesting, the organizations that agreed to participate in the survey were sent a link to Qualtrics along with a blurb explaining the survey's purpose, as shown below:

“Our MQP team on campus is focused on student leadership within student-led organizations. Our advisors are Professor Wulf and Professor Doyle on this MQP. Your organization was carefully selected to participate in our leadership research. As part of this research, we are asking that you, as members of the organization, complete the following survey to help us gain further insight for our study. The survey is completely anonymous and you may quit at any time. We appreciate your time in helping our MQP research, which has the potential to help all student organizations at WPI become more successful.”

This blurb was used in all the emails sent to organization aliases, whether or not we as an MQP team sent them directly to the alias or if the president of the organization sent it out to the alias. In some instances, the presidents of certain organizations in our sample requested to be the ones to send the survey out to their respective organizations. All MQP teammates were CC’ed on the emails to ensure the surveys were sent out and the emails appropriately reflected the MQP. From the 21 organizations that we reached out to, a total of 15 organizations chose to participate in our survey. To help encourage an increase in response rates, we emailed the presidents or directly to the organizations themselves multiple times, as a reminder to please continue filling out the survey. We targeted particularly those organizations with low response rates in the hope of increasing the responses.

Focus Groups

We contacted the executive members of the organizations who agreed to partake in our MQP’s focus groups. We gained these email addresses or the executive email alias

from the presidents of the organizations that gave us permission (Appendix I). A total of 14 organizations allowed contact for focus groups. Out of those 14, 12 organizations were represented in the focus groups. Originally 20 participants were signed up throughout the sessions. However, with last minute cancellations, a total of 17 student leaders participated in the focus groups. There were five spots allotted per focus group, but 2 groups had between 3-5 people present. Back-up participants were contacted to fill these spots, but were unable to make it as well. Each session did not have more than one executive member representing the same organization.

Four sessions of focus groups were held. Participants were asked to give informed consent prior to beginning the focus groups. They were then given incentives for showing up to the study. Angelica Zawada, served as moderator, and led the discussion for the focus groups. Participants were thanked for coming and introduced themselves. They were asked their name, what year they were, and what position they held in their organization. Participants first learned that the premise of the project focused on making recommendation for success in organizations with success defined in terms of membership engagement, and the variables focused on within the study. Angelica asked questions relating to what student leaders would want as a result from this study, what form they would want it and what was important for them in regards to the information that would be provided to them (See Appendix E for complete set of questions). Questions were clarified as needed throughout the focus groups.

The first focus group lasted 35 minutes. Due to one cancelation, there were 4 participants in this group. During this session, participants answered the questions asked, but did not expand as much on the questions nor build off of each other's conversations

as much. Due to this, questions such “Do you all agree?, what do you think about what he/she just said?, and does anyone have any additional comments before we move on?” were asked after statements in other focus groups to encourage more responses. The second focus group lasted 25 minutes. There were 5 students apart of this group. People were more talkative in this session and built off more of each other’s discussion than in the first study. The third focus group lasted 25 minutes. Three students participated in this study due to cancellations. However, the participants seemed comfortable to talk to one another about their opinions. The fourth and final focus group had 5 participants. This focus group lasted for 30 minutes. This group seems most at ease at expressing their opinions on topics and building off one another’s responses. This was the most talkative session out of the four.

Results and Analysis

Introduction

The following pages will consist of the results and analysis of the data collected during the length of this MQP. The results and analysis that will follow will look at the four hypotheses that the MQP team had created based off of background research, as noted earlier in the paper. Thus the areas from which information was gathered such as interviews, focus groups, and surveys will be applied to the hypotheses where deemed applicable. Structurally, the results and analysis section will be broken down by hypothesis and the appropriate findings in which both interviews and surveys will be presented independently and together to shed light upon whether or not the data supported our hypotheses. A separate section for focus groups will narrow in on what form students would like to receive the findings of this MQP in as noted earlier in the paper.

Interviews and Statistical Analysis

Content Analysis

In order to best categorize our qualitative results from our interviews, we analyzed our data to make sure we grouped data similarly. Before we began to analyze the data, we had one member randomize the information from interviews, so that each cell remained anonymous. Then, the other two members individually analyzed data to find information that was stated multiple times in interviews.

After grouping this information independently, these two members met to discuss their personal findings and find what discrepancies they had between the two analyses. For president interviews, the members found that they agreed 45 out of 59 times, which was

76% of the time. When analyzing the SAO interviews, the members found they agreed 12 out of 15 times or rather 80% of the time. For administration interviews, the two members agreed 20 out of 24 times, which was 83% of the time. The members discussed their discrepancies and then agreed upon an analyzed version that met both needs.

From that version, the two members further analyzed the data in the categories of organizational hierarchy, leadership styles, characteristics and traits of leaders, membership engagement and problems and areas of conflict for organizations. For the president's section, the two members agreed on the categorization of cells 61 out of 68 times, or 90% of the time. When categorizing the SAO personnel interviews, they agreed 11 out of 15 times, which was about 73% of time. When they analyzed the administration's interview results they agreed 14 out of 18 times, which was 78% of the time. Again, the two members discussed their reasoning for cells with discrepancies and created a unified categorization. While unifying the result, the two members created a new category in which cells that had multiple categories, may fit into.

Statistical Analysis

We used the statistical software program SPSS, also known as the Statistical Package for the Social Sciences, to analyze our data and hypotheses below further. A function we primarily used within SPSS was the Analysis of Variance (ANOVA) function and univariate testing. By using this function, we can support or deny our hypothesis by determining significance between different groups of variables as well as view their comparable mean scores. The ANOVA and univariate functions are beneficial in determining what information is important in our survey data. In addition, we ran linear regressions to also find correlations within our data where applicable. We also

made graphs to further disclose our findings in a way that was easier for a reader to interpret. The information from the use of this program will help make conclusions in our research.

Frequency

In this section we will have graphs depicting the frequency of all variables individually. The variables are membership engagement, characteristics and traits of a leader, leadership styles, organizational hierarchy and gender. This section was put into place so that the reader could see what our frequency of each variable was before it was correlated to membership engagement. Figures 3, 4 and 5 show limited variance within the means scores. Their means are skewed to the left meaning their mean scores as a whole were higher. Figure 6 shows no variation and is skewed to the right, which shows the participants' means were lower. Figure 7 shows a relatively normal distribution between males and females. Figure 8 shows a slight variation between genders leaning more towards females. However, we should take into account that the population ratio of males and females at WPI is 3:1.

Membership Engagement

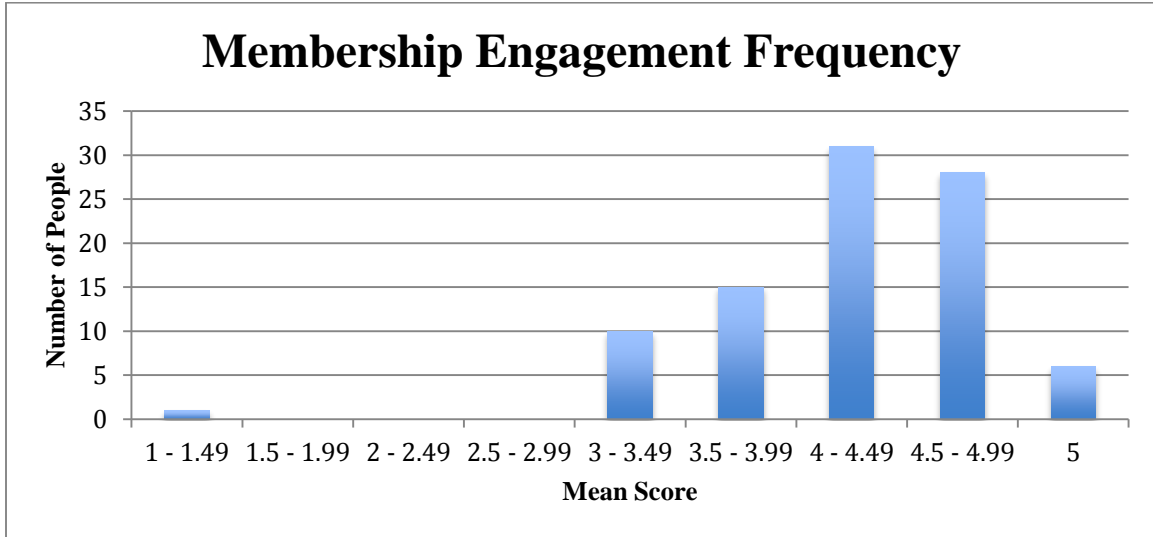


Figure 3: Membership Engagement Frequency

Characteristics and Traits of a Leader

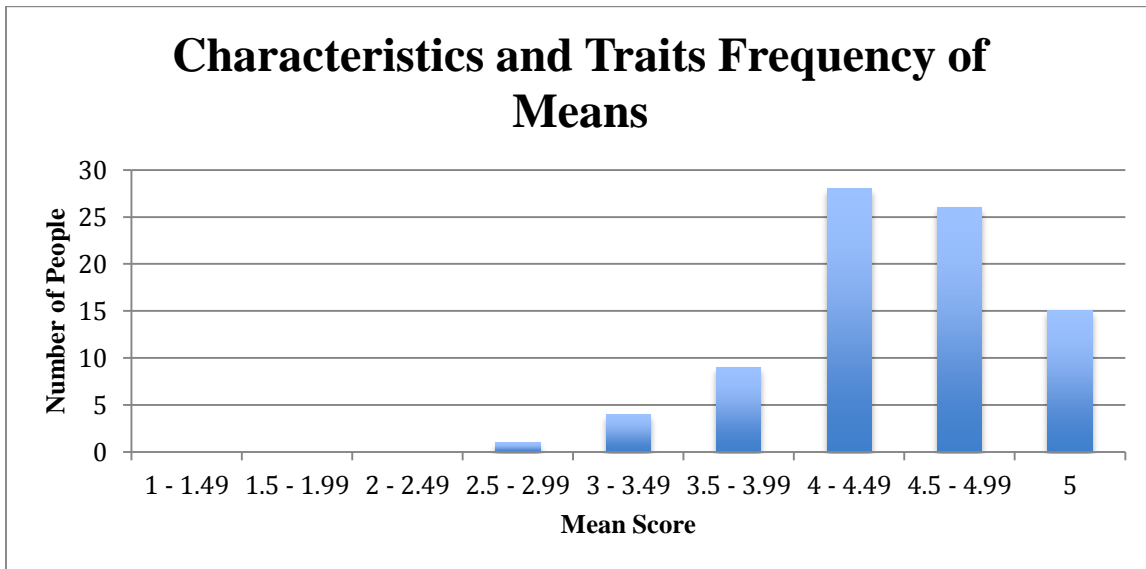


Figure 4: Characteristics and Traits Frequency

Leadership Styles

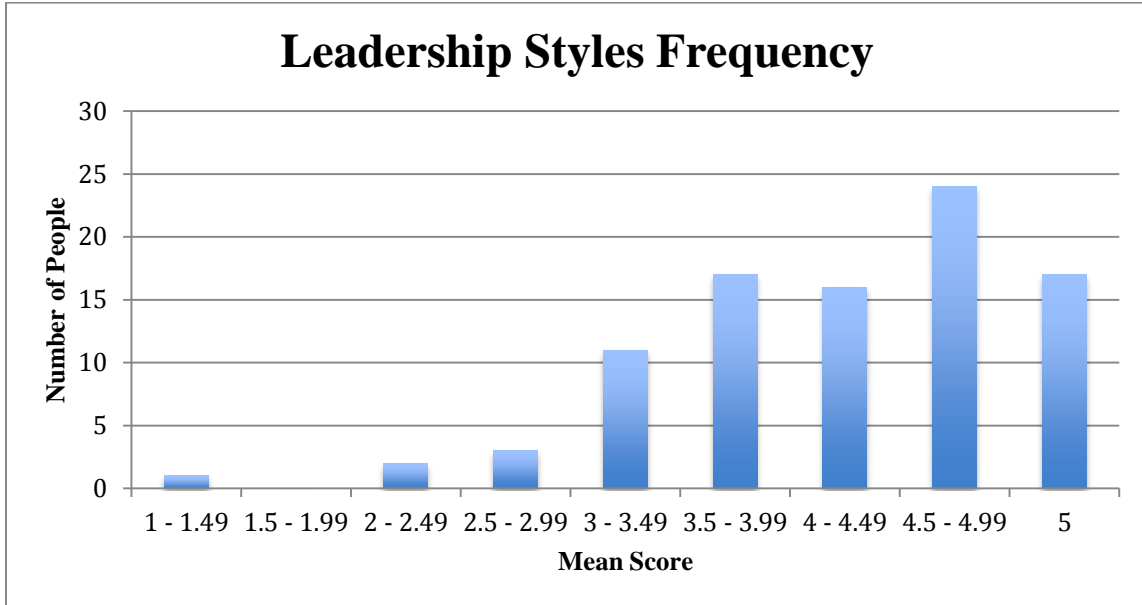


Figure 5: Frequency of Leadership Styles

Organizational Hierarchy

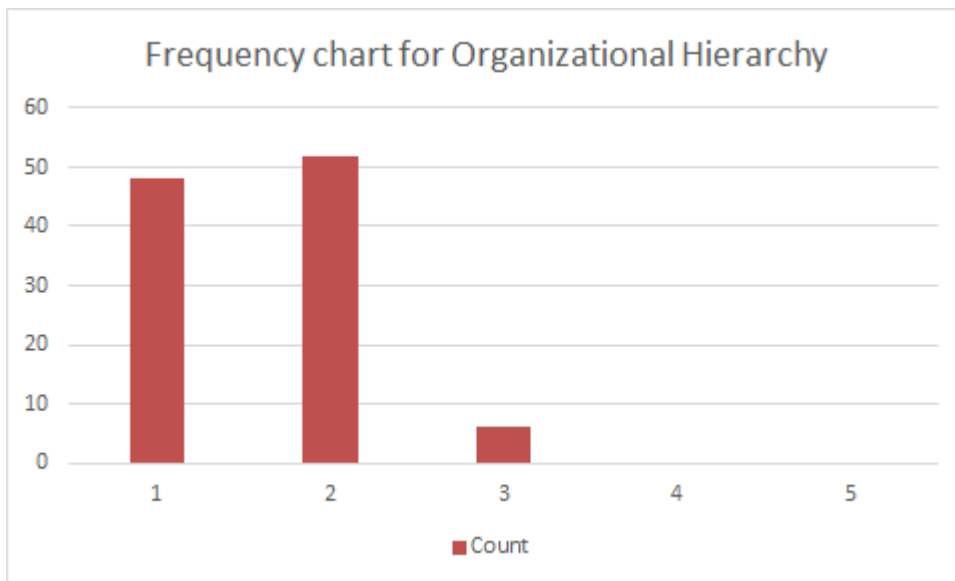


Figure 6: Organizational Hierarchy Frequency, wherein “1” denotes a participatory and collaborative hierarchy and “5” denotes a rigid and autocratic hierarchy.

Gender

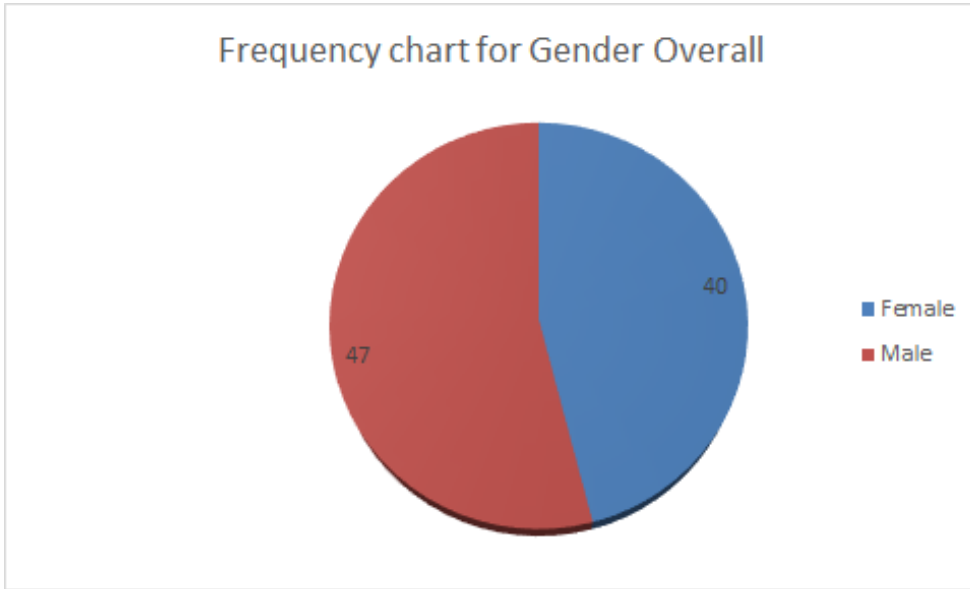


Figure 7: Gender Overall Frequency

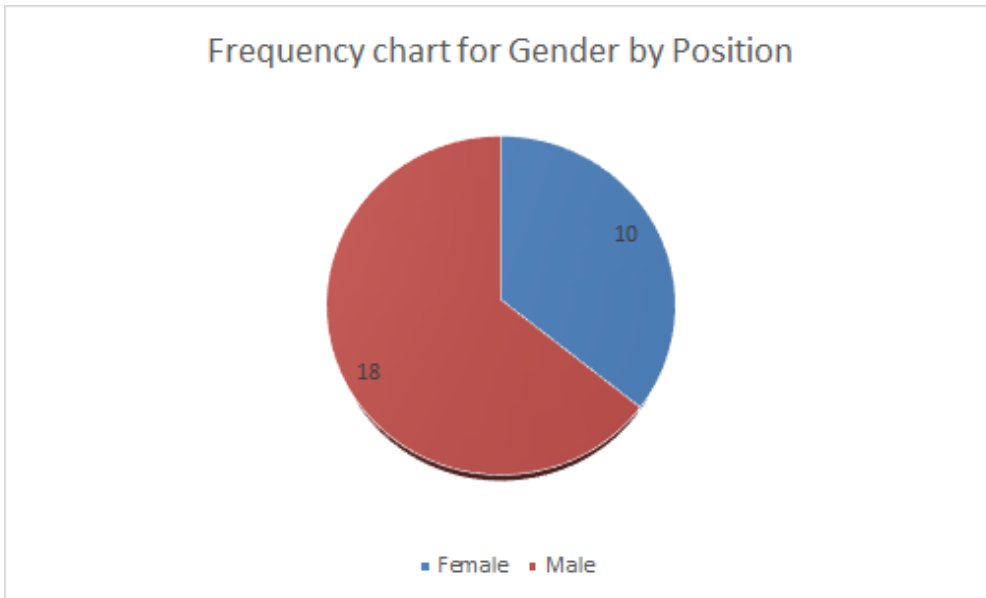


Figure 8: Gender by Position Frequency

Hypothesis: In analyzing characteristics and traits of a leader, we propose that successful leaders of an organization in terms of engaging members would each have more than half of the 19 characteristics and traits identified through our research in the literature review.

Interview Analysis

From the administration, president and SAO personnel interviews, we received some interesting answers in terms of characteristics and traits of leaders. All interviews only listed a few characteristics and traits of leaders. Therefore, we cannot use this data to support our hypothesis or not. However, through the interviews we found that several characteristics and traits mentioned matched our research directly. In the interviews, the administration, presidents or SAO personnel mentioned some of the characteristics and traits that correlate with our research in the background. Three people said that leaders need to communicate well. Two people mentioned that leaders need to be dependable, be connected to many people socially on campus, reflect on their learning and have a focus on strategy. In addition, some characteristics and traits answered were not mentioned in our research directly. The most common answers included: being organized, which was mentioned by 6 people; being enthusiastic, was answered by 4; being innovative and having good time management, was said by 3 people; and being responsible, caring for the organization; asking for help; and being able to delegate, were all mentioned by 2 people. Although they were not listed in the top characteristics and traits we found in our research; these are all very important in their own ways, especially in student-led organizations directly.

Survey & Statistical Analysis

When analyzing the data, we ran a count program to identify how many leadership characteristic and traits scale questions had over 50 % of the characteristics and traits identified in the background. We found that only 4 out of 83 participants that answered the characteristics and traits questions answered that leaders in their organization had half or less than half of the traits and characteristics listed in the background. Therefore, there was not a significant amount of data to compare to those that had more than half of the characteristics and traits, so we decided to see if higher leadership means, or scores, correlates with improved membership engagement, without strict cutoffs.

We first ran an Analysis of Variance to see if the set of students with higher leadership traits and characteristic scores had higher membership engagement. We compared students with leadership characteristic and trait means greater than 4.0 against students with scores less than 3.99. There were 69 people in the first group, and 14 people in the second group. From our ANOVA below we found there is evidence to suggest that group 1 out performs group 2 in membership engagement. Group 1 had a mean of 4.3898, which was .642 greater than group 2. Our result was significant at a p – value $<.001$ indicating a statistically significant difference between the two groups' membership engagement. (See below tables)

Table 4: Characteristics and Traits Descriptive Statistics

Descriptive Statistics
Dependent Variable:Engagement

Characteristics IV	Mean	Std. Deviation	N
1.00	4.3898	.57327	69
2.00	3.7477	.36992	14
Total	4.2815	.59393	83

Table 5: Characteristics and Traits Between-Subjects Effects:

Tests of Between-Subjects Effects
Dependent Variable:Engagement

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	4.799 ^a	1	4.799	16.112	.000	.166
Intercept	770.703	1	770.703	2587.473	.000	.970
IV	4.799	1	4.799	16.112	.000	.166
Error	24.127	81	.298			
Total	1550.444	83				
Corrected Total	28.926	82				

a. R Squared = .166 (Adjusted R Squared = .156)

Table 6: Characteristics and Traits Pairwise Comparisons

Pairwise Comparisons
Dependent Variable:Engagement

(I) Characteristics IV	(J) Characteristics IV	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
1.00	2.00	.642 [*]	.160	.000	.324	.960
2.00	1.00	-.642 [*]	.160	.000	-.960	-.324

Based on estimated marginal means

*. The mean difference is significant at the

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

To analyze our data further we performed a linear regression. We compared the means of the membership engagement scale to the means from the leadership characteristics and traits and found that membership engagement is equal to $1.389 + .656 *$

the characteristics and traits with an R squared of .332 and a significance of P<.001.

(See Table 7)

Table 7: Characteristics and Traits Linear Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.389	.451		3.083	.003	.493	2.285
	Characteristics	.656	.101	.583	6.466	.000	.454	.858

a. Dependent Variable: Engagement

Table 8: Characteristics and Traits Linear Regression R Squared

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.583 ^a	.340	.332	.48532

a. Predictors: (Constant), Characteristics

Leadership Characteristics and Traits Scale Correlated with Membership Engagement

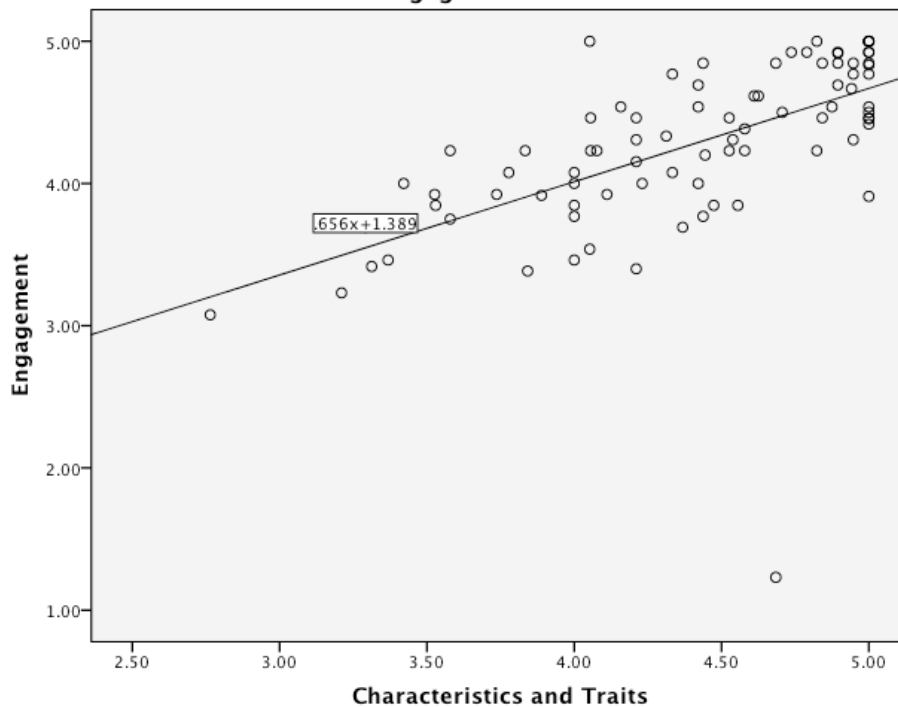


Figure 9: Characteristics and Traits Correlated with Engagement

In the linear regression graph, as seen in Figure 3, you can observe that the higher each characteristic and trait is displayed by the leader, the higher the engagement will be.

In addition, we examined what traits and characteristics were most significant when correlated with engagement. Figure 10, shows that no characteristic and trait showed more significance when viewing membership engagement. Therefore, there were no differences between the characteristics and traits and their influence on engagement. The result may be due to the amount of participation in our survey.

Tests of Between-Subjects Effects						
Dependent Variable: Engagement						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	20.614 ^a	40	.515	2.764	.081	.940
Intercept	.004	1	.004	.024	.882	.003
Integrity	.248	1	.248	1.331	.287	.160
Emotional_Maturity	.000	0	.	.	.	.000
Listening	.141	1	.141	.754	.414	.097
Dominance	.093	1	.093	.499	.503	.067
Awareness	.055	1	.055	.296	.603	.041
Empathy	.002	1	.002	.013	.911	.002
Self_Confidence	.027	1	.027	.143	.716	.020
Stewardship	.382	1	.382	2.049	.195	.226
Energy_and_Stress Tolerance	.000	0	.	.	.	.000
Conceptualization	.074	1	.074	.398	.548	.054
Healing	.260	2	.130	.697	.530	.166
Persuasion	.257	1	.257	1.379	.279	.165
Foresight	.011	1	.011	.061	.812	.009
Flexibility	.171	1	.171	.919	.370	.116
Internal_Control_ Orientation	.000	0	.	.	.	.000
Sensitivity_to_Others	.165	1	.165	.884	.378	.112
Intelligence	.339	1	.339	1.820	.219	.206
Building_Community	.000	0	.	.	.	.000
Commitment_Growth	.000	0	.	.	.	.000
Error	1.305	7	.186			
Total	898.488	48				
Corrected Total	21.920	47				

a. R Squared = .940 (Adjusted R Squared = .600)

Figure 10: Individual Leadership Characteristics and Traits Between Subject Effects

Although our original hypothesis was hard to corroborate, our analysis and regression indicated that members were more engaged when their club executives had higher characteristic and traits scores. In addition, when leaders portray each characteristic and trait to a higher extent, engagement will correlate more positively. The mean variation within characteristics and traits is limited to higher means, as seen in Figure 4 earlier. Therefore, a sample with more widely dispersed means may show a stronger or weaker relationship between membership engagement and characteristics and traits.

Implications from interview and statistical data:

The interview and survey data garnered valuable information. Although, the interviews and survey did not specifically support or deny our hypothesis, we still had interesting findings. The interviews reflected many of the characteristics and traits presented in the background as well as some that were not originally studied, which may be useful to look at in future research. In addition, the analysis of our survey data indicated that those with higher mean leadership characteristic and traits, correlated with higher membership engagement. The more effectively a leader portrays these characteristics and traits correlates positively with membership engagement.

Each characteristic and trait in the background was not more statistically significant than another in regards to membership engagement. Therefore, no characteristic and trait showed more impact on membership engagement than another, so each characteristic and trait may be viewed as equal in regards to correlating with higher membership engagement. Executives may need each of these characteristics and traits to have better membership engagement in their organizations. The participants taking the

survey viewed their executives positively as you can see in the frequency chart in Figure 4. The limited variation through this scale may make it difficult to truly identify what characteristics and traits are more important. However, what we can clearly see is that these characteristics and traits when used more, can positively correlate with membership engagement. Therefore, executives should display the 19 leadership characteristics and traits from the background as much as possible. We speculate that with more responses and less skipping of questions in our survey, we may have been able to find more variation between the significance of characteristics and traits in our research. These organization members seemed to be more engaged and think better of their executives, so with more variation we believe we would have seen more significant results in regards to particular leadership characteristics and traits.

Hypothesis: When looking at leadership styles, we hypothesize that organizations with a participatory leadership style tend to experience increased membership engagement.

Interview Analysis

The case studies in the background that we read and analyzed lead us to believe that the organizations with a participatory leadership style more frequently experienced an increase in membership engagement. To test this hypothesis in our interview portion of our data collection, we asked many different questions in order to gauge if members

were engaged in the organizations, what kind of leadership style was used in the organization, and what leadership style over the years has produced the most engaged members.

The data we collected from these interviews mostly supported our hypothesis. Organizations with a participatory leadership style could have more engaged members. The majority of organizations in our sample used a participatory leadership style where all executive members had a say in decisions. Nine of the sixteen Presidents we interviewed stated that successful leaders encourage members to be collaborative and team oriented. Ten of the sixteen presidents stated that the most successful part of their organization was their fulfillment of the organizations mission and goals. All of the SAO members we interviewed agreed that leaders who do not delegate duties to members in their organization would be unsuccessful. Two of the three SAO members agreed that to be successful, an organization must follow their mission, engage their members, and prepare members for leadership roles in the organization. Three of the five faculty members we talked to believed that student leaders with a good relationship with their members will be more successful, and will lead to smooth transitions of leadership and towards more membership engagement. Although many groups use this leadership style, we also did find that about five of the sixteen presidents mentioned that their organization was having an issue with participation among their members, and engagement of their members

A participatory leadership style was used by most leaders, but organizations are having a problem with engagement of members. From this data we hypothesized that the more the participatory leadership style is used to its best capacity the more engaged

members of the organizations should become according to our data and outside research. More than half the SAO members and administration members believed that organizations failed because members were feeling a lack of ownership of what the organization was doing. People want their voice to be heard and to feel good about the organizations they are in. Members sometimes like to be along for the ride, but typically like to be motivated and contribute to the organization's mission.

Survey & Statistical Analysis

We conducted an Analysis of Variance (ANOVA) test in regards to leadership styles using membership engagement as the dependent variable. In order to do this we took the mean of all the leadership style questions in our survey and took a separate mean of all the membership engagement questions in our survey. Then taking that mean we made independent variables files of the leadership styles. In doing this we had to set a range. Therefore anyone who answered below a 2.99 claimed to be lacking participatory leadership styles, having a more autocratic style in their organization. If they answered 3.0 they were impartial and if they answered above 4.0 they stated they had participatory leadership styles in their organization. Therefore in setting the ranges we had lowest through be 2.99 =1, 3 through 3.99 =2 and 4 through Highest = 3. This broke up our data into three different variables 1, 2, and 3. The output for the ANOVA between membership engagement and leadership styles is as follows:

Table 9 A&B: Leadership Styles Descriptive Statistics and Between-Subjects Effects

Between-Subjects Factors

	N
StylesIV 1.00	6
2.00	28
3.00	57

Tests of Between-Subjects Effects

Dependent Variable:Engagment

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	12.939 ^a	2	6.470	29.288	.000
Intercept	615.200	1	615.200	2785.063	.000
Styles_IV	12.939	2	6.470	29.288	.000
Error	19.439	88	.221		
Total	1674.479	91			
Corrected Total	32.378	90			

a. R Squared = .400 (Adjusted R Squared = .386)

Table 10: Leadership Styles Multiple Comparison

Post Hoc Tests

StylesIV

Multiple Comparisons

Engagment
LSD

(I) StylesIV	(J) StylesIV	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-.7970*	.21143	.000	-1.2172	-.3768
	3.00	-1.3347*	.20172	.000	-1.7356	-.9339
2.00	1.00	.7970*	.21143	.000	.3768	1.2172
	3.00	-.5377*	.10846	.000	-.7533	-.3222
3.00	1.00	1.3347*	.20172	.000	.9339	1.7356
	2.00	.5377*	.10846	.000	.3222	.7533

Based on observed means.
The error term is Mean Square(Error) = .221.

*. The mean difference is significant at the

At a glance it can be seen from the P-value of $< .001$ it appears that overall there is a significance to leadership styles when it relates to membership engagement. This information tells us that people who answered in group 3 and had a mean score above a 4 on leadership style questions stated that their organization had a participatory leadership style, and also had higher membership engagement. Therefore, our ANOVA and our statistical analysis support our hypothesis that a participatory leadership style leads to higher membership engagement. Look at Figure 4 below to better see this relationship. As engagement increased the count of people who claimed to view their executives having strong participatory leadership style also increases. Group 1 in the figure represents people who claim to lack a participatory leadership in their organization. Group 2 in the figure claim to neither have nor lack participatory leadership styles in their organization. Group 3 in the figure are members who claim to have a participatory leadership style within their organization.

Leadership Styles versus Membership Engagement

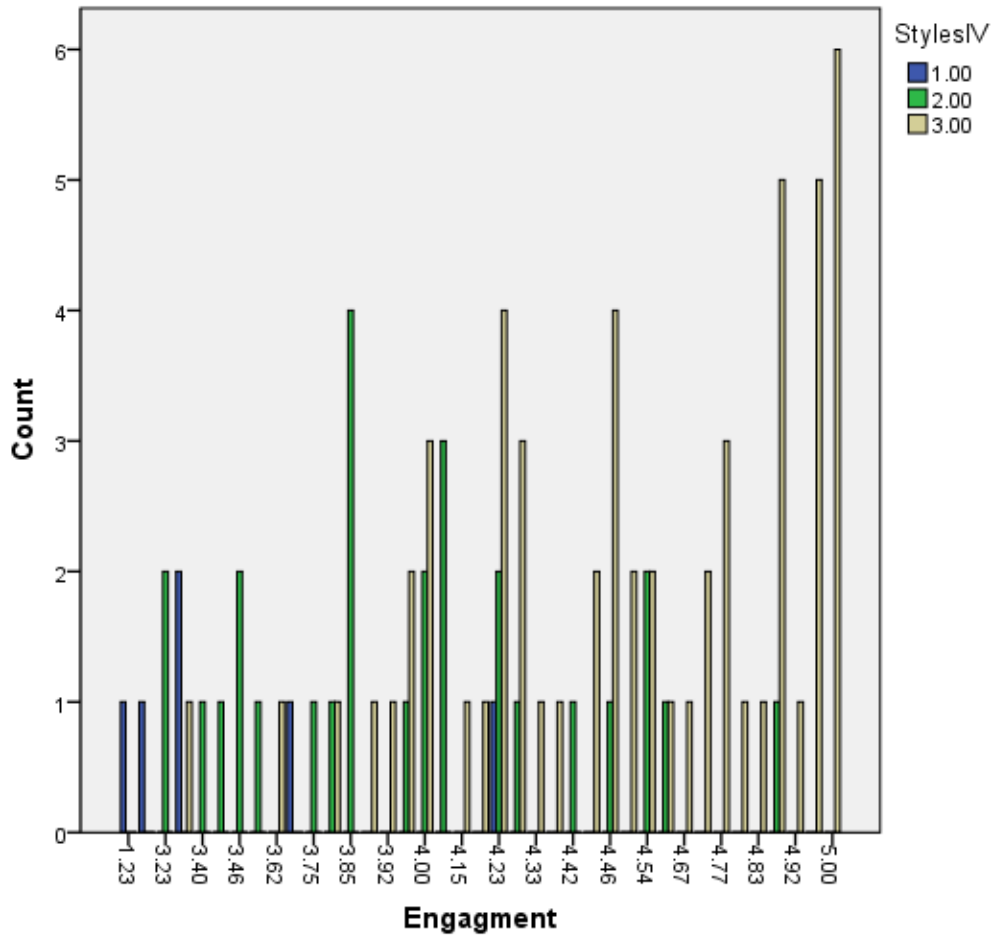


Figure 11: Leadership Styles versus Membership Engagement

The frequency of leadership styles in the above section is skewed to the left. With more participants we would have a clearer view of the data which would lead to a clearer conclusion.

Implications from interview and statistical data:

Analysis of both the interview data and survey data showed that most organizations have a participatory leadership style, but these organizations are having some issues with membership engagement. The statistical data analyzed from our survey shows that there is a significant difference between the different variables analyzed. The

participatory leadership style had the highest mean score in relation to membership engagement. This could be due to WPI's constant encouragement for group work, and the small community of WPI. We speculate this may be the case, although there may be other reasons, such as people who are in organizations may have a tendency to be the ones who want to work with others.

To engage members, we speculate that leaders can act in an encouraging way, they can try to delegate tasks and set up ice breakers so that everyone in the organization gets to know each other. Leaders have the responsibility to make the organization operate well. They can do this by offering food at meetings, making meetings quick and to the point, or finding ways for everyone to have the opportunity to get involved or speak to the group. If members choose to not be engaged, leaders will have little power over the situation. Therefore while using a participatory leadership style seems to engage members, nothing will work all the time but this style is a step in the right direction.

At WPI a participatory leadership style tends to work to facilitate membership engagement. In the work force, at other schools, or in organizations in general, this particular style may not work. For now we have taken from our data that at WPI participatory leadership styles have more impact on membership engagement. Although our interview data slightly agreed with our leadership style hypothesis, our statistical data strongly supports our hypothesis that "organizations with a participatory leadership style tend to experience increased membership engagement."

Hypothesis: We believe organizations with a flatter, more collaborative hierarchy will experience increased membership engagement.

Interview Analysis

After analyzing the interview results regarding organizational hierarchy, we found that as a whole the results do not support our hypothesis. However, the results definitely reveal some truths in regards to organizational hierarchy and membership engagement on WPI's campus. The first part of the hypothesis, regarding flatter organizations, has no real basis of support from the data. Of the sixteen organizations from which we received interviews, twelve of those sixteen operated using the recommended and required form of organization structure here at WPI (See Appendices L, Q, S). This is namely the requirement of a president, vice president, treasurer, and secretary as the executive board, with a general body membership below. Our interview with the SAO personnel reaffirmed that this is the required hierarchy and the recommended structure in their opinion for organizations at WPI (See Appendix S). The remaining four organizations who answered otherwise operated using the WPI required structure in name, but not in practice (See Appendix Q). These four organizations operated on the premise that everyone in the organization, or at least the executive board, was on the same equal footing, or close to it, in true executing power. Thus, in comparison to the twelve organizations that used the traditional WPI hierarchy with a minimum of two tiers of hierarchy, these four organizations were considered "flat" for the purposes of this MQP.

There were no discernible differences between the membership engagements, and therefore the success, of organizations that were flat compared to those who were hierarchical. There was overlap of similar membership engagement problems, ways to solve those problems, and varying levels of success for the differently structured

organizations. Examples of organizations who seemed to enjoy an active and successful membership body could be found on both ends of the hierarchical spectrum. For example, Organization “C” reported forty members, frequent internal and external events throughout the year, and was a flat organization. On the other hand, the highly hierarchical Organization “N”, with as many as five tiers, reported approximately fifty members, a consistent supply of new members each year, and holding numerous events for campus. It can be seen from these two examples, along with the rest of our presidential interview data, that there does not appear to be any noticeable difference in membership engagement simply based on if an organization is flat (See Appendix Q).

The second part of our hypothesis focused on the idea of a collaborative hierarchy. While the data did not support a difference based on a “flat versus hierarchical” structure, some interesting results came about regarding collaboration within the organizations. When asked about leadership styles within their organizations, nine of the sixteen organizations reported collaborative and team-oriented styles in their executives and leaders (See Appendix L). Thus, there might be reason to believe that this kind of collaborative and participatory atmosphere attributed to why there is no discernible difference between organizational hierarchy and membership engagement, based on the data. If the majority of organizations feature collaborative styles of leadership, perhaps this is the real variable that relates to organizational success, regardless of the literal hierarchical structure. While the data collected may have failed to support our hypothesis on hierarchy, there is a possibility that collaboration may relate in some way to how that hierarchy affects membership engagement.

Survey & Statistical Analysis

In addition to the interview analysis, we conducted a statistical analysis of the survey data concerning organizational hierarchy. A univariate test was run using SPSS to determine the P-value of significance between organizational hierarchy and membership engagement. For the purposes of analysis, three groups referred to as “1”, “2”, and “3” were created within the variable of organizational hierarchy. Group “1” contained answer values of 1-2.99, meaning the survey taker felt that their organization had an open, collaborative, and attentive hierarchy. Group “2” contained answer values of 4-5, meaning the survey taker felt that their organization was rigid, aloof, elitist, and worked strictly on hierarchy. Group “3” contained answer values of 3.0-3.99, meaning the survey taker was neutral in their response for the particular question. Tables 11 and 12 display the SPSS output data.

Table 11: Organizational Hierarchy versus Membership Engagement

Between-Subjects Factors		
		N
OrganizationalHierarchy_I	1.00	85
V	3.00	6

Descriptive Statistics			
Dependent Variable: Engagement			
OrganizationalHierarch...	Mean	Std. Deviation	N
1.00	4.2664	.61074	85
3.00	3.9872	.34885	6
Total	4.2479	.59979	91

Tests of Between-Subjects Effects						
Dependent Variable: Engagement						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.437 ^a	1	.437	1.217	.273	.013
Intercept	381.776	1	381.776	1063.780	.000	.923
OrganizationalHierarchy_I	.437	1	.437	1.217	.273	.013
V						
Error	31.941	89	.359			
Total	1674.479	91				
Corrected Total	32.378	90				

a. R Squared = .013 (Adjusted R Squared = .002)

Table 12: Organizational Hierarchy versus Membership Engagement

Estimated Marginal Means

OrganizationalHierarchy_IV

Estimates

Dependent Variable:Engagement

OrganizationalHierarchy_I V	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1.00	4.266	.065	4.137	4.395
3.00	3.987	.245	3.501	4.473

Pairwise Comparisons

Dependent Variable:Engagement

(I) OrganizationalHierarchy_I V	(J) OrganizationalHierarchy_I V	Mean Difference (I- J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
1.00	3.00	.279	.253	.273	-.224	.782
3.00	1.00	-.279	.253	.273	-.782	.224

Based on estimated marginal means

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests

Dependent Variable:Engagement

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Contrast	.437	1	.437	1.217	.273	.013
Error	31.941	89	.359			

According to the data, no survey takers answered negatively about their organization’s structure or how it operates, and as such Group “2” did not appear in the analysis output. Group “1” contained eighty-five results, and Group “3” six, but even with this overall positive response, the results failed to prove significant with a P-value of 0.273. Thus, although the survey data suggested that the organizations were open, free flowing, and laxly hierarchical, it was not statistically significant to support our hypothesis that this type of hierarchical structure leads to increased membership engagement.

To further investigate organizational hierarchy, we divided the organizations into two groups: “flat” and “hierarchical”, based on the interview data. As a total, there were four “flat” organizations and twelve “hierarchical”. Following this, we averaged the answer values for organizations in each group to determine the mean membership engagement for “flat” organizations versus “hierarchical” organizations. The result is displayed in Figure 5.

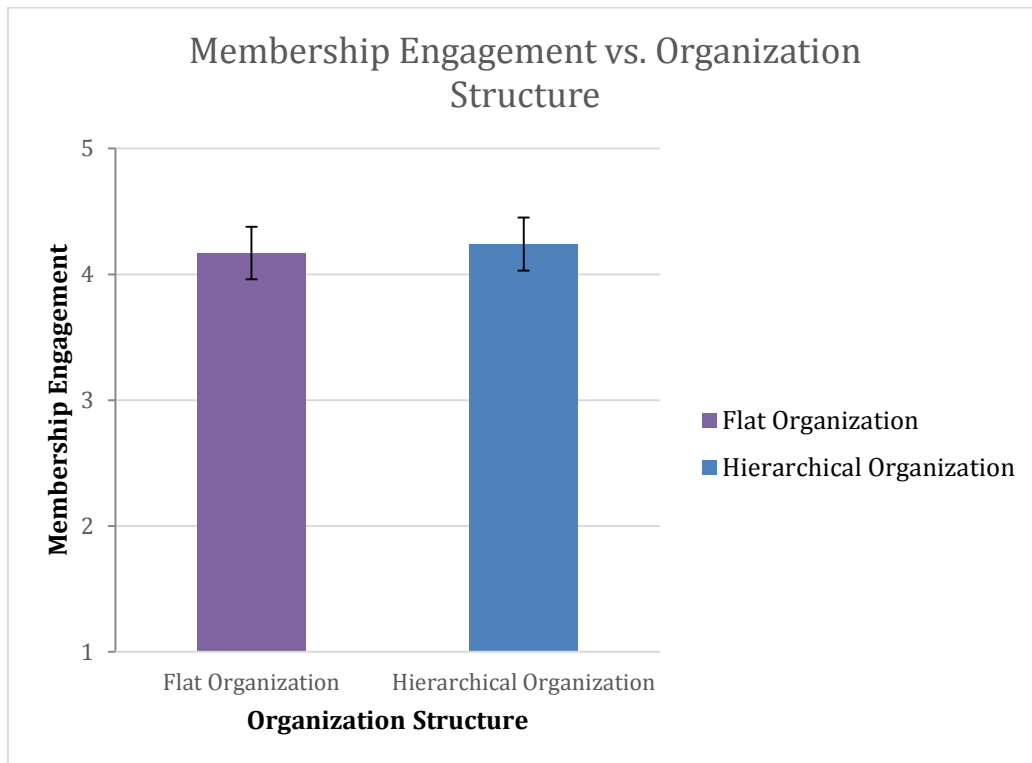


Figure 12: Engagement in Flat versus Hierarchical Organizations, with 95% confidence error bars.

The “flat” organizations produced a mean membership engagement of 4.2647 and the “hierarchical” organizations, a mean membership engagement of 4.2408. Based on a question value range of 1-5, the difference in means between the “flat” and “hierarchical” organizations is negligible. This supports the previous analysis that, based on our data,

there is no significant difference between organizational hierarchies and membership engagement.

In order to discover if potential links existed between any of the organizational hierarchy questions in the survey and membership engagement, we next ran a univariate test on SPSS of each question concerning organizational hierarchy against membership engagement. The significance of each question is shown in the SPSS output in Table 13.

Table 13: Significance of Individual Organizational Hierarchy Questions against Membership Engagement

Tests of Between-Subjects Effects

Dependent Variable: Engagement

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	22.966 ^a	38	.604	3.165	.000	.710
Intercept	36.321	1	36.321	190.184	.000	.795
The extent to which the executives behave makes me feel free	1.385	4	.346	1.813	.141	.129
The extent to which executives when solving problems generally	.551	4	.138	.721	.582	.056
Psychological connectedness of executives to myself	.714	4	.179	.935	.452	.071
The amount of responsibility felt by myself for achieving the	.571	4	.143	.747	.565	.057
In your opinion how well do the executives know and understand	.521	3	.174	.909	.443	.053
In your opinion to what extent are decision makers aware of	.488	3	.163	.852	.472	.050
To what extent are you involved in decisions related to your	3.719	4	.930	4.869	.002	.284
In your experience the direction of information flow within	1.020	4	.255	1.335	.270	.098
The extent to which executives have faith in you	2.092	4	.523	2.739	.039	.183
The extent to which you have faith in your executives	.450	4	.112	.589	.672	.046
Error	9.358	49	.191			
Total	1617.896	88				
Corrected Total	32.324	87				

From this univariate test, we discovered that two questions in particular had significance related to membership engagement. These questions were, “To what extent are you involved in decisions related to your organization” with a P-value of 0.002, and “The extent to which executives have faith in you” with a P-value of 0.039. These results are reasonable, because in the former question, it makes sense that members who are more involved in decision making will be more engaged overall. In the latter question, we believe that members who feel supported and trusted by the executive board will feel more confident to engage in organizational activities. However, the data overall fails to support a significant relationship between organizational hierarchy and membership engagement.

Referring to Figure 6 in the Frequency section, the frequency of organizational hierarchy was largely skewed to the right. As such, this lack of variation does not allow for an accurate representation of the population, and results provided in this section must be considered along with this lack of variation. If future data were to be collected, a larger sample could provide better results.

Implications from interview and statistical data:

Analysis of both the interview and survey data has failed to provide sufficient support for our hypothesis that “organizations with a flatter, more collaborative hierarchy will experience increased membership engagement.” Based on our statistical analysis and interview analysis, we speculate that at WPI organizational structure does not matter in relation to organizational success. We considered a few plausible explanations as to why it may not have had an effect. Firstly, since there is a required structure to all WPI clubs

and organizations, there may be a certain level of consistency amongst organizations that makes it difficult for organizational hierarchy to have any real difference in membership engagement. Secondly, it could be due to the fact that students who come to WPI are interested in project-based and collaborative learning no matter the structure, so they might be more apt to conduct their organizations in a way conducive to this attitude, which could nullify any effect hierarchy has on engagement. Concerning WPI in particular, these are a few possible explanations for why no significance was found.

Hypothesis: In the case of gender, we foresee that organizations wherein the executive/leadership board is split evenly between males and females will have higher levels of membership engagement than those with executive boards comprised majority of either males or females.

Survey & Statistical Analysis

For the purposes of gender as a variable, only survey data was collected and analyzed. Utilizing SPSS, we conducted an Analysis of Variance (ANOVA) test of gender against membership engagement. For the purposes of analysis, females were coded as “1” and males were coded as “2”. In the first ANOVA test, we compared gender overall to membership engagement, without regard to executive positions. Table 14 displays the SPSS output.

Table 14: Gender ANOVA

Descriptives

Engagement								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	40	4.3549	.49477	.07823	4.1966	4.5131	3.38	5.00
2	47	4.1623	.67948	.09911	3.9628	4.3618	1.23	5.00
Total	87	4.2508	.60604	.06497	4.1217	4.3800	1.23	5.00

ANOVA

Engagement					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.802	1	.802	2.213	.141
Within Groups	30.785	85	.362		
Total	31.587	86			

With a P-value of 0.141, the data provides marginal significance for the relation of gender to membership engagement. Females produced a mean of 4.3549, whereas males produced a mean of 4.1623, with the mean in this case referring to the average of all answer values for membership engagement questions relating to gender. A summary of this data is shown in Figure 6 and 7. The first chart displays a scatterplot of all answer values for membership engagement for females (1) and males (2), including the average value for each. The second chart displays the overall mean of answer values for females (1) and males (2).

Gender Versus Membership Engagement

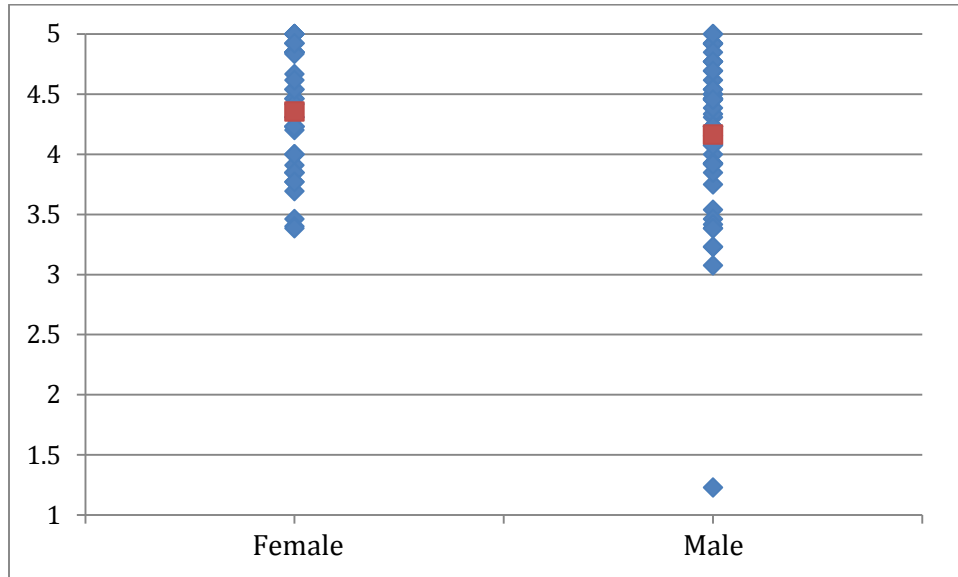


Figure 13: Answer Values for Gender vs. Membership Engagement. Mean values for each are shown in Orange

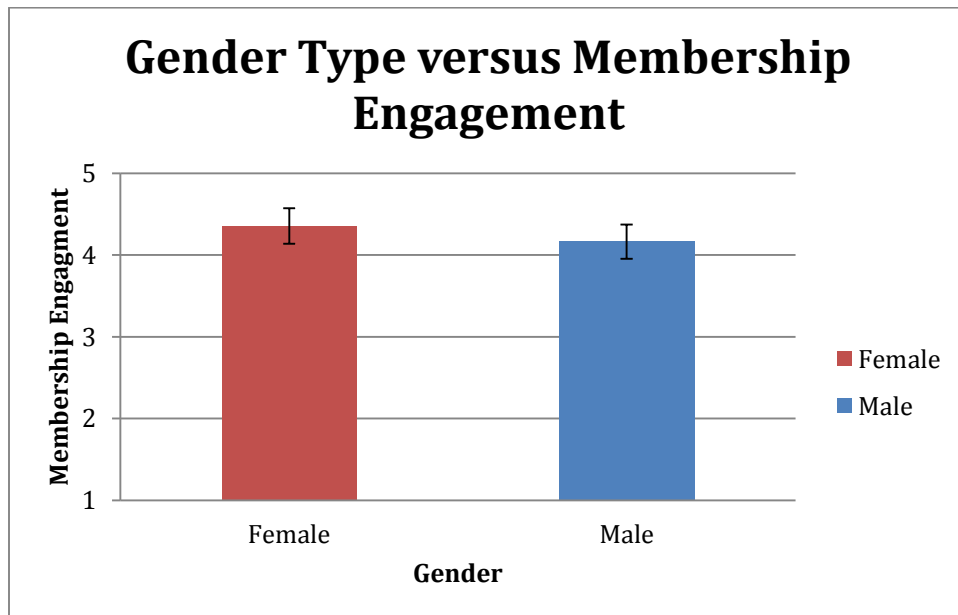


Figure 14: Average Answer Value for Gender vs. Membership Engagement, with 95% confidence error bars.

It should be noted that, for the purposes of data collection and analysis, a higher answer value means more membership engagement. This difference in means could suggest that females in general are slightly more engaged than males. However, as is seen

in the first chart, the male answer data contains a noticeable outlier, although the data points for males seem to spread slightly further down than for females, regardless.

In the second ANOVA test, we compared gender of members in a current executive position to membership engagement. For the purposes of analysis, individuals currently holding an executive position were coded “1” and individuals not were coded “2”. Tables 15 and 16 display the SPSS results output.

Table 15: Gender by Position Output

Between-Subjects Factors

		N
What is your gender? /	1	40
	2	46
Do you currently hold an executive position in your / organization?	1	28
	2	58

Descriptive Statistics

Dependent Variable: Engagement

What is your gender? /	Do you currently hold an...	Mean	Std. Deviation	N
1	1	4.5077	.50793	10
	2	4.3039	.48827	30
	Total	4.3549	.49477	40
2	1	4.2140	.53965	18
	2	4.1321	.77474	28
	Total	4.1641	.68687	46
Total	1	4.3189	.53842	28
	2	4.2210	.64274	58
	Total	4.2529	.60930	86

Table 16: Gender and Position Between-Subject Effects

Tests of Between-Subjects Effects

Dependent Variable: Engagement

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1.163 ^a	3	.388	1.046	.377	.037
Intercept	1310.697	1	1310.697	3536.283	.000	.977
Whatisyourgender	.965	1	.965	2.604	.110	.031
Doyoucurrentlyholdanexecutivepositioninyourorganization	.363	1	.363	.980	.325	.012
Whatisyourgender * Doyoucurrentlyholdanexecutivepositioninyourorganization	.066	1	.066	.178	.674	.002
Error	30.393	82	.371			
Total	1587.015	86				
Corrected Total	31.556	85				

a. R Squared = .037 (Adjusted R Squared = .002)

For this second ANOVA test, the results failed to prove significant, with a P-value of 0.674. Thus, from our data, there seems to be little to no statistical significance between the gender and executive standing of members and membership engagement within an organization. Therefore, analysis of the survey data regarding gender does not support our hypothesis that mixed-gender executive boards lead to higher membership engagement.

In terms of frequency, as per Figure 7 in the Frequency section above, the data on gender overall resulted in good variation with no skewing. Figure 8 details the frequency of gender of those in executive positions. While this data seems to be skewed, if the gender split of the WPI population is taken into account (approximately 30% female, 70% male), the variation of the data might still be considered representative of the population.

Implications from interview and statistical data:

Based on the survey data concerning gender, the data fails to support our hypothesis that “organizations wherein the executive/leadership board is split evenly between males and females will have higher levels of membership engagement than those with executive boards comprised majority of either males or females.” While as a team we speculate that the non-significance of the hypothesis is good because it means gender at WPI does not matter when you are trying to engage members; what matters is who you are as a person. We further speculate several other alternatives for why results may not have been significant. One, it is possible that because there are fewer females than males at WPI, females who attend WPI are more aware of their gender and thus strive to present themselves as leaders and gain leadership roles. Two, it is possible that students with assertive qualities in general are more likely accepted to WPI, due to its rigorous recruitment practices, which could explain the relatively equal participation from each gender in a variety of leadership roles.

Focus Group Analysis

In this analysis section, we will go through each question asked of the 17 executives members in our four focus groups and discuss the recurring answers we received. Each focus group was asked the same set of questions, making the questions constant. There are two charts displayed after each description of the question. The first chart outlines what the question was, what the most common answers were, and how many individuals out of the 17 executives agreed with this answer. Each chart identifies which focus groups stated this answer. The focus groups that a certain answer stemmed from will have how many people said an answer under each focus group column. The

second chart will have a few quotes stated by individuals within certain focus groups that led us to group their answers into certain categories that can be viewed in each questions first chart.

The first question asked of the focus groups: “What membership engagement challenges does your organization at WPI face?”, was responded to in two predominant ways. Six executives said their organization’s most pressing issue was recruiting members to join their organization and then retaining these members. Two executives claimed that they wanted members to attend a meeting because they want to rather than attending due to membership requirements. These instances involving membership engagement showed that 47% of our focus group sample struggled with membership engagement.

Table 17: Question 1 Responses

Answer Number	Question: What membership engagement challenges does your organization at WPI face?	Focus Group 1	Focus Group 2	Focus Group 3	Focus Group 4
Answer 1	Gain members and keep them involved (6)	1	2	2	1
Answer 2	Want members to proactively desire to attend the meetings and events (2)	1	1	0	0

Table 18: Question 1 Quotes

Focus Group	Quotes from Question 1
Focus Group 1	“People will do it for a while, then get too busy.”
Focus Group 2	“The biggest is keeping people engaged throughout the year in the club, inside and outside of the club.”

Focus Group 3	“We have tried to fix membership engagement, but it’s been hard to retain members.”
Focus Group 4	“The biggest challenge is keeping things interesting and new.”

Again, the second question, “How would you utilize the data we would collect for your organization?” had two specific answers. Six executives described that they would like to see our data, so they could understand the most common problems other organizations faced. If many organizations faced the same problems, they would not feel as alone in their struggle and may try different strategies other groups implemented to solve these issues. Five executives responded to this question by describing that they would look at the information we provided and would see what data applied to their organization and then discuss it with their executive board.

Table 19: Question 2 Responses

Answer Number	Question: How would you utilize the data we would collect for your organization?	Focus Group 1	Focus Group 2	Focus Group 3	Focus Group 4
Answer 1	See if other organizations have the same issues as they do (6)	0	4	2	0
Answer 2	See what information could apply to their org and talk about it among the executive board (5)	2	2	0	1

Table 20: Question 2 Quotes

Focus Group	Quotes from Question 2
Focus Group 1	“Officers would look at most of the information and use the ones they can apply to their organization”.
Focus Group 2	“It would be interesting to see what clubs people go back and what those clubs are doing that is different than others.”
Focus Group 3	“I guess I would like to know if the challenges we are facing are also being faced by other organizations on campus.”
Focus Group 4	“A list of ideas is always helpful and welcome.”

Next, we asked “What is the best way to present this data to you?” Seven executives wanted the information to be posted on Orgsync so it would be easy to access and would be available to future executives. Six executives wanted the data presented in statistical or numerical form. If the data were in numerical form, it would be quick and easy to look. Six executives wanted our data given to them in a PowerPoint form, possibly with voice over. The executives thought this was a good idea because they would be able to show our PowerPoint to their executive board and have a third party, such as us, disclose the information to their organization. Two executives preferred to have the information put into a pamphlet. In looking at this data, 14 of the 17 individuals, or 82%, of focus group participants wanted our data presented to them in a concise, direct and easy-to-manage way. This also informed us that 13 of the 17 individuals, about 77% of participants, wanted the information in digital form either through Orgsync or PowerPoint.

Table 21: Question 3 Responses

Answer Number	Question: What is the best way to present this data to you?	Focus Group 1	Focus Group 2	Focus Group 3	Focus Group 4

Answer 1	Orgsync (7)	1	3	2	2
Answer 2	In numerical or statistical form (6)	0	1	2	3
Answer 3	PowerPoint (6)	4	2	0	0
Answer 4	Pamphlet (2)	1	1	0	0

Table 22: Question 3 Quotes

Focus Group	Quotes from Question 3
Focus Group 1	“I like a model or a power point with key results or voice over power point.”
Focus Group 2	“If it was on OrgSync it could work, but it’s just a matter if people would remember it’s there and go back to it.”
Focus Group 3	“I think people would want numbers rather than text in looking at data you give to us.”
Focus Group 4	“Try to avoid presenting the data in one giant paper. Have a list of things and reference the paper for more detailed things, but if it’s just a 40 page section of a paper, I wouldn’t read it.”

Then we asked “Do you think this should be provided for the general public (such as anyone at WPI who wants it) besides displaying it on the project site?” Four of the executives stated that they thought the information should be given to the SAO office and made an available resource for interested students. Three members believed the information should be sent to all campus organizations, but not just emailed out to all individuals on campus. Two executives thought it would be a good idea to have our data presented at the presidential orientation conducted in A and C term at WPI. Looking at this information, 9 out of 17 (53%) of executives thought this information should be supplied to organizations rather than given directly to the entire student body.

Table 23: Question 4 Responses

Answer Number	Question: Do you think this should be provided for the general public (such as anyone at WPI who wants it, besides displaying it on the project site)?	Focus Group 1	Focus Group 2	Focus Group 3	Focus Group 4
Answer 1	The information should be sent to the SAO office and made an available resource (4)	2	1	0	1
Answer 2	Only sent to organizations on campus (3)	1	0	1	1
Answer 3	Should be part of the orientation for clubs in A and C term (2)	1	1	0	0

Table 24: Question 4 Quotes

Focus Group	Quotes from Question 4
Focus Group 2	“Part of the training sessions put on by the SAO could be a summation of statistics or presentation as a startup packet of new executives.”
Focus Group 3	“I think the feedback would mainly benefit organizations on campus rather than just the general public.”
Focus Group 4	“What about putting it on the SAO OrgSync page? So if people wanted to find it would be there.”

Next we asked “What information would be most meaningful in receiving as the leaders of your organizations?”. Three executives wanted tips on how to recruit organization members and then keep these members engaged. Three executives wanted to specifically know how other organizations operated and what made certain groups more

successful than others. Two members thought it would be a good idea if we could encourage people to take Business 1010, a leadership course focusing on group work and engagement of members. Our data states that 8 of the 17 (about 47%) of executives wanted us to help them and their members with our information so they could be more successful.

Table 25: Question 5 Responses

Answer Number	Question: What information would be most meaningful in receiving as the leaders of your organizations?	Focus Group 1	Focus Group 2	Focus Group 3	Focus Group 4
Answer 1	Tips to gain members and keep them engaged (3)	0	3	0	0
Answer 2	Know how other clubs operate, what makes them successful (3)	0	1	1	1
Answer 3	Encourage people to take BUS1010 (2)	2	0	0	0

Table 26: Question 5 Quotes

Focus Group	Quotes from Question 5
Focus Group 1	“If Bus 1010 was a social science requirement a lot more people would take it.”
Focus Group 3	“I also would want to see how larger organizations become successful, so our organization can move towards that.”

As we winded down, we wanted to ask if the executive members “Would disclose this information from our research to [their] members specifically or [if they] would work internally with [their] executive to make changes based off of our recommendations?”. Eleven executives stated that they would first discuss our finding with their executive

board and, if in agreement, then talk to their members about the information. This informed us that 11 of the 17 (about 65%) of executives would try to identify their problems and potential solutions internally before involving or making aware their general body members of predominant problems within the organization.

Table 27: Question 6 Responses

Answer Number	Question: What information would be most meaningful in receiving as the leaders of your organizations?	Focus Group 1	Focus Group 2	Focus Group 3	Focus Group 4
Answer 1	Exec board first and them if needed shown to the members (11)	3	3	2	3

Table 28: Question 6 Quotes

Focus Group	Quotes from Question 6
Focus Group 1	“We would probably discuss within the exec board and then talk to members. We want to be very open with club, so that we can go over suggestions to help members be more involved.”
Focus Group 2	“We would work with the executives first and then maybe open up to general body.”
Focus Group 3	“I think we would work more internally with exec, and then see what the general body thinks.”
Focus Group 4	“First go to exec board and see what our favorite points are, and then go to general members to get their opinions and interests.”

Our last question before we debriefed the executives was “Would this information be helpful to you, and if so how?” Ten executives answered that our information would enable them to see if other organizations were having the same issues that they experienced. They then progressed to say that they would look at how others were

dealing with these issues and decide on the best course of action for their organization.

This means that 10 of the 17 (about 59%) of the executives we spoke with wanted our data to benefit their organization by making it stronger and more successful in the future.

Table 29: Question 7 Responses

Answer Number	Question: Would this information be helpful to you, and if so how?	Focus Group 1	Focus Group 2	Focus Group 3	Focus Group 4
Answer 1	If everyone has the same issues and how to best deal with it (10)	3	4	3	0

Table 30: Question 7 Quotes

Focus Group	Quotes from Question 7
Focus Group 1	“Getting feedback is crucial from a 3 rd party. The feedback will let us know if everyone is having the same problems and giving us suggestions for ways to grow will be very helpful. “
Focus Group 2	“It would be interesting to see what clubs people go back and what those clubs are doing that is different than others.”
Focus Group 3	“I think it would help rethink what we are doing and make sure it’s good.”

Implications:

We conducted focus groups in order to find out how executives from the organizations we sampled would want to use our data. We desired to know what kind of format the data could be potentially presented to organizations. All the information aided us in our research. We discovered that most executives would like the data and recommendations in a concise electronic form that is available to their executives such as

a voice over PowerPoint, or infographic all uploaded on OrgSync. These materials were asked to be given to the SAO office where student leaders would have access to the information.

Recommendations

The research we conducted led us to conclude that leadership correlates with membership engagement. Leaders set the tone of their organization. The way they lead and the values they exude will be reflected in the organization's culture and execution of their goals. Please look at Table 1 to see the different kinds of leadership styles. Each different style would shape an organization uniquely. We found that a democratic style was used most frequently and successfully at WPI.

The democratic style occurs when the leader streamlines the organization to achieve a common goal. The leader or leaders also make a decision in order to aid the majority. This style is utilized when the leader is able to unite and motivate the masses by appealing to the idea that each member of the organization can contribute equally to the cause. Similarly we found that leaders who possess certain traits and characteristics were said to be better leaders at WPI. From our interviews we found that leaders should be able to communicate and be connected to many people socially on the campus. Their organization members should be able to depend on them. To keep a group functioning and successful, leaders should be organized, and have good time management. Leaders are respected and cause change if they are responsible, innovative, enthusiastic, and care about the organization. Leaders also need to be open to reflecting on their learning, asking for help, delegating duties and have a focus on strategy. In our surveys all the characteristics and traits as a whole correlated to increased membership engagement. Therefore leaders should try to possess high energy levels and stress tolerance, self-confidence, internal control orientation, emotional maturity and integrity. Other traits recognized in effective leaders include dominance, intelligence, flexibility, and sensitivity

to others. Leaders should also consider embodying the following characteristics including, listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people, and building community. These findings were primarily from our background research and collected data. The following portion of this section will illustrate how to become more successful in the WPI community.

One of the most repeated suggestions from our interviews was that leaders should have a succession plan. They should be aware of how they will leave their organization. Leaders should be looking for qualities they possess in members. The more members understand about the leadership roles within the organization the easier the transition of leadership. If members are unsure of how the executive members of the group operate the organization can be drastically altered when new officers transition in, which can lead to chaos and disorder.

Next, our interviews and surveys led us to find that leaders should try to include everyone in the organization's activities. We found that if members felt ownership of what the organization was doing they appeared more engaged. Delegating tasks to members gives members something to do and creates a sense of ownership of the successes within the organization. This not only helps members get engaged, but also puts them in leadership positions. If leaders foster an environment of collaboration and cooperation, more voices will be heard and more work will get done. Organizations need a sense of community. Members who took our survey liked to be engaged and included in activities in the organization. If the leader is constantly working with the majority of members within the organization, he or she knows what is going on at all times. This

allows the leader to know when conflict is about to arise and figure out how to best handle all situations. The more leaders know about the people in their organizations the better off they will be in dealing with future issues. In our study, membership engagement seemed to increase when members felt a connection to each other and felt as though their contributions to the organization were significant.

In our interviews people repeatedly mentioned that when leaders delegate tasks to members and try to get members engaged, they must first be seen as a role model. Leaders must also maintain trust in their organization. If leaders follow through with everything they say they will, members will follow their example. How can leaders hold their members accountable if they do not hold themselves accountable? This also ties into the idea that the leader should also be engaged themselves. If the leader is not engaged the members will in turn not be engaged.

Leaders need to have a clear idea of what their organization's mission is and how they want to achieve their organization's goals. The interviews we conducted made it clear that without understanding the organization's mission and defining goals, little could be accomplished. In order to engage members they must also be open to new ideas. Being open to ideas means listening to member's ideas of their organization's mission and goals. Getting a new light on old ideas keeps organizations growing and prospering. The most common characteristics and traits mentioned in our interviews and surveys alluded that a leader should be innovative, organized, and focused on how to execute ideas. By following the recommendations above the organization will likely see an increase in membership engagement.

Although a lot of these recommendations were primarily focused on the leaders of organizations, members can also help increase engagement within their organization. Members can get involved in the organization and take initiative. Members should offer to help executives, try to meet others in the organization and share their ideas and views with the club in order to be more engaged. Members would also find it wise to be careful of who they choose as their leaders and pay attention to who has the right leadership styles and characteristics and traits rather than it being a popularity contest. Leaders can do a slew of things to try and motivate and engage members, but the member has to want to be there. They have to value the time they spend with the organization and try to get involved.

To put the recommendations into perspective, we created suggestions that organizations may follow to better their leadership. This handout can be found in Appendix T. In addition, we created a resource guide that can give students and student leader’s access to free and easily accessible tools that can foster future improvements with membership engagement within organizations. The following table details a list of freely accessible resources for all WPI student organization leaders, for improvement in areas such as leadership qualities, team building, and group counseling.

Table 31: Resources for Student-led Organizations

Resource	Description	Where to Find It
Team Building	If you feel that your organization lacks a sense of community and closeness, icebreakers and team building games can help foster a sense of community and belonging, which is the first step in increasing membership engagement. The SAO office offers a number of ideas online.	WPI Student Activities Office Online at: http://www.wpi.edu/offices/sao/team-building.html
Retreats	If you feel that your executive board or	WPI Student Activities Office

	organization needs time to regroup, set goals, and solidify relationships, retreats can be a great opportunity to accomplish this. The SAO office is always available to help!	Online at: http://www.wpi.edu/offices/sao/ideas-for-leading-groups.html
Policies	To make sure your organization is improving, while following WPI's organizational policies, the SAO offers a freely accessible list of resources and policies for all student organizations.	WPI Student Activities Office Online at: http://www.wpi.edu/offices/sao/policies-and-procedures.html
Leadership Library	If you feel that you or your leaders need to revisit good theories of leadership, or gain new ideas on how to lead, the SAO office provides a free library on this topic in the form of books, magazines, games, and more.	WPI Student Activities Office Online at: http://www.wpi.edu/offices/sao/leadership-library.html
Leadership Topics (XCEL Points)	If you feel that you or your leaders need a quick reference to decision making on factors such as setting goals, retaining members, delegating, and more, the SAO office offers a list of quick reference guides online.	WPI Student Activities Office Online at: http://www.wpi.edu/offices/sao/leadership-topics.html
Leadership Development Committee	To foster a more individualized approach to developing one's leadership capabilities, the Leadership Development Committee has faculty, staff, and students dedicated to supporting and creating leadership opportunities for students!	WPI Student Activities Office Online at: http://www.wpi.edu/offices/sao/ideas-for-leading-groups.html
Student/Group Counseling	If you are frustrated about the way things are going in your organization and need someone to talk to for advice, the Student Development and Counseling Center can be there to help! For personal or group related issues, you can schedule sessions to learn how to solve problems. The SDCC also offers mediation help for group discussion of disputes or differences that might cause deadlocks in the organization. This will help overcome problems and keep your organization moving forward!	WPI Student Development and Counseling Center Online at: http://www.wpi.edu/offices/sdcc/students.html

Conclusion

The goals of this project were to determine what variables may have an impact on organizational success, collect data on these variables, analyze our findings to determine relationships to success, and provide recommendations for success attainment in student-led organizations. For the purposes of this project, organizational success was defined as membership engagement. The project focused on the WPI student-led organization population and the selected variables, which were researched through surveys, interviews, and focus groups.

Based on our data and analysis, we found that two variables – characteristics and traits of a leader and leadership styles – were both significantly related to membership engagement. Based on two of our four hypotheses, the major findings were that the data seemed to support a potential relationship between collaborative, participatory organizational leadership and membership engagement. Participatory leadership allows members to be more engaged, and at WPI, we believe that this style is particularly strong due to the emphasis and encouragement of team work in the Institute's project-based curriculum. As such, we recommend that leaders delegate and support an open environment such that all members of the organization are included and supported in its activities, to foster collaboration and future leadership.

In addition our data indicated the idea that the more leaders portray the characteristics and traits mentioned in our background the more engaged members would be. Those leaders with a higher mean score of leadership characteristics and traits, based on the nineteen provided in the report, correlated with higher membership engagement. For example, some of the leadership characteristics included listening, awareness,

building community, empathy, and integrity. This result placed an emphasis on the human element of organizations. As such, we recommend that leaders look for these characteristics in others and improve these characteristics in themselves through feedback. As a supplement to our recommendations, resources were provided that are freely accessible to student leaders at WPI, to improve leadership and organizational cohesiveness, participation, and collaboration. Additionally, a handout was provided that gave leaders a list of suggestions their organization can take to try to create a more open and engaged environment.

Contrastingly, our data analysis revealed no significance with organizational hierarchy or gender in regards to membership engagement. Although the data failed to support two of the hypotheses, due to a lack of significance or enough variation to provide useful answers, we do not believe that this outcome is negative. The two unsupported hypotheses may show that the gender and hierarchical makeup of student-led organizations does not hold any significant value in membership engagement. We believe that, potentially due to the required structure for organizations at WPI as well as the collaborative learning environment of the Institute, the effect that hierarchy would have on membership engagement is nullified. Again, what shines through is the human aspect of collaboration rather than the physical, structural features of the organization. In regards to gender, the data suggests that personal characteristics of leaders, rather than gender, correlates with membership engagement. We have speculated that students accepted to WPI already contain some assertive leadership qualities, which could explain the relatively equal participation from each gender. Regardless, the implication of these

results is that the organization leaders' leadership characteristics and styles weigh more than their gender or the structure of the organization overall.

Based on the project's data and analysis, we believe that the manner in which organization student leaders treat, develop, and include their members could contain the real determinants of success in WPI student-led organizations. However, further research is required to provide support to any causality. Overall, this project has resulted in findings that in the WPI community of student-led organizations, what matters more to the outcome of membership engagement is the people, rather than the processes that the organization features.

Limitations and Future Research

Limitations

Our project had some limitations at varying levels of severity. We conducted our research only on WPI's campus, so our results may vary if we compared organizations on our campus to other campuses. In addition, the results from our study can only generalize student-led organizations at WPI and may not be carried to the life of WPI students after they graduate. A limitation of our survey was that we did not receive as many responses as we would have wanted. Due to lack of participation and being able to skip certain questions, we could not make significant conclusions about a couple of our variables. We tried to minimize this impact by periodically sending our survey to organizations in our sample. As a result of this limitation, we could not make significant conclusions relating to a couple of our variables. We also did not have enough responses between types of organizations to draw conclusions relating to an individual type of organization in regards to engagement. Our team decided to perform a multi-method approach on a stratified random sample of organizations to get a closer look at these organizations. This decision limited the amount of organizations we reached, but increased data from the organizations we did contact through the interviews, focus groups, and survey.

In addition, we were unable to support or deny our hypothesis in 2 instances due to the data we received. The data from participants had means that fell a majority in one category, which made it impossible to find significance when compared with the variable groups. We tried to address this limitation by emailing organizations at random and providing neutral questions that were pretested. We could not control how many

participants fell into a particular group for each variable, which made some of our results skewed toward a certain group. Membership engagement had higher mean score itself, which limited what we could find as a result. In addition, our measurements for our variables and success were subjective not objective. These were created as a result of our research. Therefore, there may have been discrepancies between responses.

We decided to do a stratified random sample to gather different types of organizations into our sample pool without bias. However, this may have impacted how many organizations participated. For example, three organizations felt our project would not benefit them, so declined to participate as a result. The survey was also self-reported, which may have caused certain self-supporting biases. We tried to minimize this limitation by performing our pre-testing. Another limitation to our study was that we performed a correlational study rather than causal, so we could not directly prove causation in regards to membership engagement. In some instances, we also could not control how often an organization was contacted, which may have affected the amount of responses for that particular organization. We reached out to organization heads periodically to reduce this limitation.

Please take a look at our table below to view our limitations, how we tried to reduce these impacts and their level of severity. As you can see in Table 32, we felt the three limitations that made the most impact on our research were that our results could only be generalized for WPI student organizations, we could not make significant conclusions for some our variables and our study did not show causation between the variables and membership engagement. This severely impacted our study because we could not further our generalizations to other schools and real life, make significant

conclusions with some of our variables, or show causation. Future research may help to mitigate these severe limitations.

Table 32: Research Limitations

Limitations	What We Did to Reduce Impact	Level of Severity
1. Can only generalize results for WPI student organizations	Noted it was a study on only WPI's campus	High
2. Could not make significant conclusions for some variables due to lack of survey responses.	Emailed Organizations periodically with reminders to complete survey	High
3. Could only show correlations not causation	Did not think about the impact of this limitation previously	High
4. Had limited time to perform a closer study on more organizations	Took a stratified random sample of 21 organizations to look at more in depth through interviews, focus groups and survey.	Moderate
5. The data we received was skewed	Provided neutral questions and emailed various organizations at random	Moderate
6. Could not control how often some organizations were directly contacted	Reached out to organization heads periodically	Moderate
7. May be Self-reporting bias	Pre-tested the Survey to reduce bias	Low
8. Measurement for Variables was subjective not objective	Researched variables to make scales	Low

Future Research

Future research may look to resolve some of these limitations. Future researchers may look at performing an experiment instead of a correlational study to show causation of our variables on membership engagement. Additionally, in order to get a greater spread of data and more participants, future teams may look at a larger sample of organizations without a closer evaluation of each organization or look to go off campus as well. In addition, to view how our research may be used in the corporate world, future

teams could look to study these variables in a work setting to see how they compare. The future teams would be able to create more generalizations for their results not only at other schools but also in the work world. Variables, such as organizational hierarchy, which could not be seen as significant or not significant, could be looked into further with more participants. In addition, future teams may research more variables in regard to success with membership engagement, such as ethics and values, which were researched in our background. By researching new variables, future projects can view what other variables impact membership engagement. Greek life could also be viewed as its own project to research the variables from our study. It has a large amount of student involvement and is considered a part of the student organizations on campus. When viewing Greek Life, future teams may compare their results to the outcome of our MQP. By doing so, they can view the differences of the set-up, international influence, mission and requirements of both Greek and Non-Greek life and how they relate to membership engagement. Another focus for future projects could be on the individual types of organization. Future projects may look at a particular type of organization, such as programming or religious, to make more generalizations for that particular type of organization. The value behind this type of research is that particular types of organizations may have different ways to impact the engagement of their members.

References

Abrahamowicz, D. (1988). College involvement, perceptions, and satisfaction: A study of membership in student organizations. *Journal of College Student Development*, 29(3), 233-238.

Adolf Hitler Biography. (2014). Retrieved 08/12/14, 2014, from <http://www.biography.com/people/adolf-hitler-9340144>

Ahmad, K. Z. B. (2008). Relationships between leader-subordinate. *Emerald Insight*. Retrieved September, 6, 2014, from <http://www.emeraldinsight.com/doi/full/10.1108/01437730810887012>

Bailey, S. (2014). Is hierarchy helping or harming your organization? *Forbes*.

Bhattacharjee, Anol. (2012). *Social science research: Principles, methods, and practices*. Tampa, Florida: University of South Florida.

Boleman, C. *Personality Traits of Leaders*.

Bowman, B. (2014). Michael Phelps. Retrieved 08/12/14, 2014, from <http://swimswam.com/michael-phelps-coach-bob-bowman-characteristics-champions-video/>

Brown, M. E., & Trevino, L. K. (2006). Socialized charismatic leadership, values congruence, and deviance in work groups. *Journal of Applied Psychology*, 91(4), 954.

Business Ethics. (2014). Investopedia. Retrieved 8/14/14, 2014, from <http://www.investopedia.com/terms/b/business-ethics.asp>

Calman, K. C. (2002). Evolutionary Ethics. Retrieved September, 6, 2014, from <http://jme.bmj.com/content/30/4/366.full>

Coaching. (2011). Human Resources. from http://www.hrinz.org.nz/Site/My_HR_Career/Coaching/What_is_Coaching.aspx

Duggan, T. How Does Leadership Affect the Ethics of a Corporation. Retrieved September, 6, 2014, from <http://yourbusiness.azcentral.com/leadership-affect-ethics-corporation-2917.html>

Eagly, A. H., Karau, S.J. & Makhijani, M.G. (1995). Gender and the effectiveness of leaders: A meta-analysis. *Psychological Bulletin*, 117(1), 125-145.

Fink, A. (2009). *How to Conduct Surveys* (4th ed.): SAGE Publications, Inc.

Finn, L. (2014). Five Characteristics of Having Good Work Ethics. Retrieved September, 6, 2014, from <http://everydaylife.globalpost.com/five-characteristics-having-good-work-ethics-11917.html>

Fleming, John H. and Asplund, Jim. (2007). *Human sigma: Managing the employee-customer encounter*. New York: Gallup.

Galinsky, A., Friesen, J. P., Kay, A. C., & Eibach, R. P. (2014). Seeking structure in social organization: compensatory control and the psychological advantages of hierarchy. *Journal of Personality and Social Psychology*, 106(4), 590-609.

GENTILE, T. (2013). Pasta maker Barilla tries to make amends after chairman's anti-gay remarks New York Daily News. Retrieved from <http://www.nydailynews.com/life-style/eats/barilla-fix-anti-gay-scandal-article-1.1506397>

Green, H. (2000). *The Uncertainty of Everyday Life, 1915-1945*. Fayetteville, Arkansas: University of Arkansas.

Grojean, M. W., Resick, C. J., Dickson, M. W., & Smith, D. B. (2004). Leaders, values, and organizational climate: Examining leadership strategies for establishing an organizational climate regarding ethics. *Journal of Business Ethics*, 55(3), 223-241.

Hamilton, B. (2010). Bethany Hamilton. Retrieved 08/12/14, 2014, from <http://bethanyhamilton.com/http://www.foxnews.com/entertainment/2014/05/15/surfer-bethany-hamilton-on-losing-arm-in-shark-attack-jesus-is-my-stronghold/>

Henry VIII Biography. (2014). Retrieved 08/12/14, 2014, from <http://www.biography.com/people/henry-viii-9335322>

Human resource contributors: Rensis Likert. (2014). Retrieved July 18, 2014

Likert, R. (1967). *Human organization: Its management and value*. New York: McGraw-Hill.

Jacob, S. A., & Furgerson, S. P. (2012). Writing interview protocols and conducting interviews: Tips for students new to the field of qualitative research. *The Qualitative Report*, 17(T&L Art, 6), 1-10. Retrieved from <http://www.nova.edu/ssss/QR/QR17/jacob.pdf>

J.R. Wilson (Eds.), *Evaluation of human work* (45-68). London: CRC Press.

Joppe, M. (n.d.). Exploratory Research. University of Guelph: School of Hospitality, Food & Tourism Management. Retrieved October 23, 2014, from <http://www.htm.uoguelph.ca/MJResearch/ResearchProcess/ExploratoryResearch.htm>.

Kitzinger, J. (1995). Qualitative research: introducing focus groups. *Bmj*, 311(7000), 299-302.

Krueger, R. A., & Casey, M. A. (2009). *Focus groups: a practical guide for applied research* (4th ed.). Thousand Oaks, California: Sage Publications.

Leadership Styles. (2014). The Wall Street Journal. 2014, from <http://guides.wsj.com/management/developing-a-leadership-style/how-to-develop-a-leadership-style/>

Management systems: Rensis Likert. (2014). 2014

Manktelow, J. (n.d.). The Leadership Pipeline Model: Developing Your Organization's Future Leaders. The Leadership Pipeline Model. Retrieved September 30, 2014, from <http://www.mindtools.com/pages/article/leadership-pipeline-model.htm#>

Pendleton, D., & King, J. (2002). Values and leadership. *BMJ: British Medical Journal*, 325(7376), 1352.

Pike, G.R. (2003). Membership in fraternity or sorority, student engagement, and educational outcomes at AAU public research universities. *Journal of College Student Development*, 44(3), 369-382.

Reports, B. (2013). *Women in the labor force: A databook*. Washington, D.C.: U.S. Bureau of Labor Statistics.

Response rates. (2007). *IAR: Assess teaching* >. Retrieved October 17, 2014, from <https://www.utexas.edu/academic/ctl/assessment/iar/teaching/gather/method/survey-Response.php?task=research>

Russell, R. F. (2001). The role of values in servant leadership. *Leadership & Organization Development Journal*, 22(2), 76-84.

Seidman, Irving. (2006). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York: Teachers College.

Spears, L. C. (2010). On character and servant-leadership: Ten characteristics of effective, caring leaders. *The Journal of Virtues & Leadership*, 1(1), 25-30.

Statistical overview of women in the workplace. (2014). Retrieved June 1, 2014

The Sarbanes-Oxley Act. (2006). Retrieved 08/12/14, 2014, from <http://www.soxlaw.com/>

Steele, C. M. (1997). A threat in the air: How stereotypes shape the intellectual identities and performance of women and African-Americans. *American Psychologist*, 52, 613-629.

Student Organization Training. (n.d.). Retrieved February 19, 2015, from http://uwrf.orgsync.com/org/studentorganizationtraining/Officer_Transitions

Tichy, N. M., & Ulrich, D. O. (1984). The leadership challenge: A call for the transformational leader. *MIT Sloan Management Review*.

Toossi, M. (2002). A century of change: The U.S. labor force, 1950-2050. *Monthly Labor Review*(May), 15-28.

United States country data. (2014). Retrieved June 14, 2014

Warner, Judith. (2014). Fact sheet: The women's leadership gap. Center for American Progress.

Watergate: The Scandal That Brought Down Richard Nixon. Retrieved 08/14/14, 2014, from <http://watergate.info/>

DETERMINANTS OF SUCCESS IN WPI STUDENT-LED ORGANIZATIONS112

Wender, L. (2011). Organizational Learning in Student Organizations: Discovering How to Grow and Develop (Honors Thesis), University of Michigan. Retrieved from <https://www.lsa.umich.edu/UMICH/orgstudies/Home/Current%20Students/OS%20Honors/Past%20OS%20Honors%20Theses/LeaWendersthesis.pdf>

Winkler, A. (2014). Yes, Corporations are People. Retrieved 08/12/14, 2014, from http://www.slate.com/articles/news_and_politics/jurisprudence/2014/03/corporations_are_people_and_that_s_why_hobby_lobby_should_lose_at_the_supreme.html

Yukl, G. A. (2002). Leadership in organizations. Retrieved from: <http://files.liderancaecoaching.webnode.com/200000015-31f5732fb3/media-F7B-97-randd-leaders-business-yukl.pdf>.

Appendix A- Email to Organization Presidents

Hi (Organization President),

Our MQP team on campus is focused on student leadership within student-led organizations and what makes certain organizations more successful than others. Our advisors are Professor Wulf and Professor Doyle on this MQP. Your organization was carefully selected to participate in our leadership research. As part of this sample, your answers are very important to our overall research findings. Your leadership and organization's leadership experiences would be very valuable to our study because it will give us a basis for exploration and understanding of what factors and experiences make an organization successful.

With your permission, we would like to set up an interview with you about leadership within your organization. During this interview we will ask questions related to your experiences as a leader within your organization, as well as set up future times that we can meet or contact your organization for surveys and focus groups. This interview will be scheduled for 30 minutes. Your contributions would allow for insights into leadership, which is key to WPI's success. These insights can be provided to you and your organization at the end of our study as well.

Everything discussed in this interview will remain confidential and will remain only within the research team and professors. You and your organization's name will not be included in any public report. Your interview would be recorded, and once transcribed will be destroyed. The information we use will also be stored on password-protected computers. We would like to schedule a meeting time with you within the next couple of weeks. Thank you for your time and we hope to hear from you soon.

Sincerely,
(MQP Team)

The point of contact for your interview and scheduling of appointments will be (Point of Contact)

(Contact Information)

CC: Prof Doyle and Prof Wulf

Appendix B – Interview Protocol for Presidents of Organizations

- Initial Contact by Email:
 - Introduce names
 - Introduce context (Student working on MQP Project)
 - Evaluating student leadership within student-led organizations and what makes certain organizations more successful than others
 - Set up time to interview
- Assign roles (note-taker, interviewer (s))
- Introductions:
 - Ask permission to record/ use information
 - Subject name can remain anonymous if you would like
 - Will not publish confidential information
 - Feel free to ask us for clarification on questions, etc.
- Interview Questions:
 - What is the goal of your organization?
 - How many (events/games) does your organization (put on/ participate in) during an academic year?
 - How many people are members of your organization?
 - What does attendance typically look like for your organization during an academic year?
 - If you have the information and wouldn't mind us having it as well, could we have your organization's attendance from 2013-2014?
 - Who makes the decisions within your organization? What is the process for finalizing the decisions?

DETERMINANTS OF SUCCESS IN WPI STUDENT-LED ORGANIZATIONS 15

- What is your organizational hierarchy?
- What are the most successful areas within your organization?
- What are the problem areas?
 - What strategies do you use to fix these?
 - How are they working for you?
- What are the challenges facing your organization?
- What type of leadership styles do successful leaders engage in within your organization?
 - Ex) Team oriented with a head who has final say but uses a board of advisors to aid him or her.
 - Ex) One person makes all the decisions and does not ask or except suggestions or aid form other members.
 - Ex) Everyone has free rain and equal say, all are responsible for own areas of work and are given a lot of freedom
- What types of characteristics and traits do leaders in your organization have?
 - Do you usually notice these qualities before they become leaders within the organization?
- How do you try to get members within your organization to be engaged?
 - How successful has this been for you?
- Do you think your organization can be more successful and why?
- Conclusion:
 - Can we contact your executive board and general body to participate in our focus groups and survey?
 - Do you have an executive alias that we may contact?
 - Do you have a general body alias that we may contact?
 - May we have a copy of your roster?
 - How many active members do you have under you/in your organization?

DETERMINANTS OF SUCCESS IN WPI STUDENT-LED ORGANIZATIONS116

- Can we contact you in the future if we come up with further questions?
- Thanks for your time
- Follow up
 - Send “thank you” email
 - If there is anything you feel you missed feel free to contact us

Appendix C – Interview Protocol for Student Activities Personnel

- Initial Contact by Email:
 - Introduce names
 - Introduce context (Student working on MQP Project)
 - Evaluating student leadership within student-led organizations and what makes certain organizations more successful than others
 - Set up time to interview
- Assign roles (note-taker, interviewer (s))
- Introductions:
 - Ask permission to record/ use information
 - Subject name can remain anonymous if you would like
 - Will not publish confidential information
 - Feel free to ask us for clarification on questions, etc.
 - The questions we are about to ask you refer to your experiences with Non-Greek organizations only.
- Interview Questions:
 - How long have you been working at WPI?
 - What roles/positions have you held at WPI?
 - What do you do in your current role?
 - Please compare and contrast two non-Greek organizations that you have seen be successful and fail.
 - In looking at organizations, what kind of structure have you found to be successful within the WPI community?

DETERMINANTS OF SUCCESS IN WPI STUDENT-LED ORGANIZATIONS 118

- Have you seen a successful organization at WPI fail because of poor leadership skills? What happened?
- Have you seen a failing organization at WPI turn around? How were they able to do this?
- What are common obstacles that organizations face?
- What is the best way in these situations for organizations to overcome the obstacles?
- In your experience, what dynamics make an organization at WPI successful v. unsuccessful?
- Describe two leaders of different organizations who were successful but used different methods and traits to be successful. Explain their differences and why they were able to succeed.
- Conclusion:
 - Do you have any questions about our research?
 - Is there anything we did not cover that you would like to add?
 - Can we contact you in the future if we come up with further questions?
 - Thanks for your time
- Follow up
 - Send “thank you” email
 - If there is anything you feel you missed feel free to contact us

Appendix D – Interview Protocol for WPI Administration

- Initial Contact by Email:
 - Introduce names
 - Introduce context (Student working on MQP Project)
 - Evaluating student leadership within student-led organizations and what makes certain organizations more successful than others
 - Set up time to interview
- Assign roles (note-taker, interviewer (s))
- Introductions:
 - Ask permission to record/ use information
 - Subject name can remain anonymous if you would like
 - Will not publish confidential information
 - Feel free to ask us for clarification on questions, etc.
- Interview Questions:
 - How long have you been at WPI?
 - In what roles/positions have you held at WPI?
 - What is your educational and professional background in?
 - Ex. This includes degrees received, etc.
 - What organizations were they apart of? What made the organization successful or unsuccessful?
 - What is it that you do here at WPI?
 - How involved are you in working with students?
 - In what capacity do you work with student-led organizations?

DETERMINANTS OF SUCCESS IN WPI STUDENT-LED ORGANIZATIONS120

- What do you see your role to develop student leadership as?
 - What do you do to develop future leaders?
- From your position, have you seen student organizations progress on campus in the last five years?
 - If so, in what ways?
- What distinguishes a successful organization from an unsuccessful one?
 - What do you define as successful?
- By working with student on campus, what characteristics and traits do successful student leaders attain?
- What conflicts and challenges do student organizations typically face?
- What advice would you give student leaders?
- From your experiences, what can leaders do to engage students?
- What have you seen to be the biggest weakness of any organization?
- Do you believe an organization that is failing can turn around and become very successful? How?
- Conclusion:
 - Do you have any questions about our research?
 - Is there anything we did not cover that you would like to add?
 - Can we contact you in the future if we come up with further questions?
 - Thanks for your time
- Follow up
 - Send “thank you” email
 - If there is anything you feel you missed feel free to contact us

Appendix E – Focus Groups for Individual Executive Members:

- Initial Contact by Email:
 - Introduce names
 - Introduce context (Student working on MQP Project)
 - Evaluating student leadership within student-led organizations and what makes certain organizations more successful than others
 - Set up time they can attend the focus group
- Assign roles (note-taker, interviewer (s))
- Introductions:
 - Ask permission to record/ use information
 - Subject name can remain anonymous if you would like
 - Will not publish confidential information
 - Feel free to ask us for clarification on questions, etc.
- Focus Group Questions:
 - Our project is focused on how variables such as gender, hierarchy, characteristics and traits of a leader, and leadership styles affect the success of an organization, where success is in terms of membership engagement. We will make recommendations based off of our data as to what makes an organization successful.
 - What membership engagement challenges does your organization at WPI face?
 - How would you utilize the data we would collect?
 - What is the best way to present this data to you?
 - Do you think this should be provided for the general public (anyone at WPI who wants it, besides displaying it on the project site)?

DETERMINANTS OF SUCCESS IN WPI STUDENT-LED ORGANIZATIONS122

- How do you think it should be provided to the public?
- What information would you be most meaningful in receiving as the leaders of your organizations?
- Would you disclose this information from our research to your members specifically or would you work internally with your executive to make changes based off of our recommendations?
- Would this information help your organization?
 - If so, how?
- Conclusion:
 - Can we contact you in the future if we come up with further questions?
 - Thanks for your time
- Follow up
 - Send “thank you” email
 - If there is anything you feel you missed feel free to contact us

Appendix G – Email to WPI Administration

Dear (Administrator),

Our MQP team on campus is focused on student leadership within student-led organizations and what makes certain organizations more successful than others. Our advisors are Professor Wulf and Professor Doyle on this MQP. With your permission, we would like to set up an interview with you at your earliest convenience to hear about your experience with student-led organizations at WPI. The interview will take approximately 30 minutes. Your contributions would allow for insights into leadership, which is key to WPI's success. At the end of our study, any findings and recommendations we have made to help improve student-led organizations at WPI can be provided to you.

Everything discussed in this interview will remain confidential and will remain only within the research team and professors. Your name will not be included in any public report. Your interview would be recorded, and once transcribed will be destroyed. The information we use will also be stored on password-protected computers. We would like to schedule a meeting time with you within the next couple of weeks. Thank you for your time and we hope to hear from you soon.

Thank you,

Angelica Zawada, Tyler Alexander, and Nysa Casha

Appendix H – Email to Student Activities Personnel

Dear (Student Activities Personnel),

Our MQP team on campus is focused on student leadership within student-led organizations and what makes certain organizations more successful than others. Our advisors are Professor Wulf and Professor Doyle on this MQP. With your permission, we would like to set up an interview with you at your earliest convenience to hear about your experience with student-led organizations at WPI. The interview will take approximately 30 minutes. Your contributions would allow for insights into leadership, which is key to WPI's success. At the end of our study, any findings and recommendations we have made to help improve student-led organizations at WPI can be provided to you.

Everything discussed in this interview will remain confidential and will remain only within the research team and professors. Your name will not be included in any public report. Your interview would be recorded, and once transcribed will be destroyed. The information we use will also be stored on password-protected computers. We would like to schedule a meeting time with you within the next couple of weeks. Thank you for your time and we hope to hear from you soon.

Thank you,

Nysa Casha, Angelica Zawada, Tyler Alexander

Appendix I – Email to Focus Groups

Hi Everyone,

Our MQP team on campus is focused on student leadership within student-led organizations. Our advisors are Professor Wulf and Professor Doyle on this MQP. Your organization was carefully selected to participate in our leadership research. As part of this research, we are asking that you, as executives of the organization, to participate in a focus group to help us gain further insight for our study. We are looking for 1-2 executive members per organization to participate. The focus groups will last from 30 minutes to an hour, and pizza, soda and a \$20 Amazon Gift Card will be available to those that participate. Spots will be scheduled on a first come basis.

You may sign up to participate by filling out this [whenisgood](http://whenisgood.net/hpt3t37).

<http://whenisgood.net/hpt3t37>

Where it says name, please provide your name and in parenthesis please state the organization's name in which we are contacting you about. For example, Angelica Zawada (Organization).

In the comment section, you may provide your preference for time, and we will try to accommodate your preference based on availability. You will receive an email early this week confirming your sign up time and location.

The focus group will remain completely confidential and you may quit at any time. We appreciate your time in helping our MQP research, which has the potential to help all student organizations at WPI become more successful.

Thank you,

Angelica Zawada, Nysa Casha, and Tyler Alexander

The point of contact for these focus groups should you have any questions will be Angelica Zawada at amzawada@wpi.edu.

DETERMINANTS OF SUCCESS IN WPI STUDENT-LED ORGANIZATIONS 128

	Always gets ideas and opinions and always tries to make constructive use of them	Seldom gets ideas and opinions of mine in solving problems
The extent to which executives, when solving problems, generally try to get my ideas and opinions and make constructive use of them.	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	
	Very open	Far apart
Psychological connectedness of executives to myself (ie., openness, open communication between executives and myself).	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	
	I feel real responsibility for the organization's goals and behave in ways to implement them	I feel little responsibility for the organization's goals and do not behave in ways to implement them
The amount of responsibility felt by myself for achieving the organization's goals.	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	

DETERMINANTS OF SUCCESS IN WPI STUDENT-LED ORGANIZATIONS 129

	Knows and understands problems of members very well				Has no knowledge or understanding of problems of members
In your opinion, how well do the executives know and understand organizational problems faced by members?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Generally well aware of problems				Often are unaware or only partially aware
In your opinion, to what extent are decision makers aware of problems, particularly those affecting the general membership of the organization?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Never involved in decisions; occasionally consulted				Involved fully in all decisions related to your work
To what extent are you involved in decisions related to your work for the organization?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

DETERMINANTS OF SUCCESS IN WPI STUDENT-LED ORGANIZATIONS130

	Downward, originating from the executives and then going to the general members				Downward at some points, and upward from the general members to executives at other points
In your experience, the direction of information flow within your organization is typically:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Have no faith in you				Have complete faith in you
The extent to which executives have faith in you.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	You have no faith in your executives				You have complete faith in your executives
The extent to which you have faith in your executives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

>>

DETERMINANTS OF SUCCESS IN WPI STUDENT-LED ORGANIZATIONS131

Please read the following statements and rank the level that you agree with the statement from strongly disagree to strongly agree.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	N/A
I understand my role in the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have the resources I need to carry out my responsibilities for the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The organization enables me to use creativity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The organization enables me to use my talents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I frequently receive praise from the executives and other members for my contributions to the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The executives care about the members of the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The other members' dedication and hard work encourage me to put in my best effort to the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My ideas and thoughts are heard and valued by the organization when decisions are made.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The organization adds high value to the WPI community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As a member of the organization I take my role seriously.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I work to the best of my ability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is effective working with members in my organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Executives make sure everyone is doing his/her job well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Executives talk to anyone they feel is having trouble.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like I am growing as a person from my time with this organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The head of the organization gives me freedom to use creativity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The head of the organization gives me freedom to complete my own tasks at my own pace.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

>>

DETERMINANTS OF SUCCESS IN WPI STUDENT-LED ORGANIZATIONS132

Instructions: Below are a series of statements that may or may not describe your executive council's past behavior. Please indicate how likely the statement of behavior is for your executive council from very unlikely to very likely. There are no right or wrong answers, so please answer truthfully.

	Never Happens	Rarely Happens	Sometimes Happens	Usually Happens	Always Happens	No Basis
Remains honest about situations and conditions even if such honesty is disagreeable to others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reacts with poise even in situations when others get angry.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Listens to suggestions and feedback for improvement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Builds community within the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Builds community with other groups and functions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has the ability to take the lead.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lives by the organization's values.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can understand others' points of view, including views of those who differ in opinion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demonstrates confidence in his/her ability and judgment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creates an open environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintains emotional maturity during times of stress, pressure or disagreement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Works towards long-term goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mends relationships within the organization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presents an argument for their views rather than relying on their positions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prepares for future events based off past experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regardless of environment, they are able to move the organization in a positive direction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adjusts to different situations as they arise.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understands distinction between working one-on-one with members vs. members as a whole.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Under pressure, they are able to address a situation with clarity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Please answer the remaining background and demographic questions.

What is your gender?

- Female
 - Male
 - Other
-

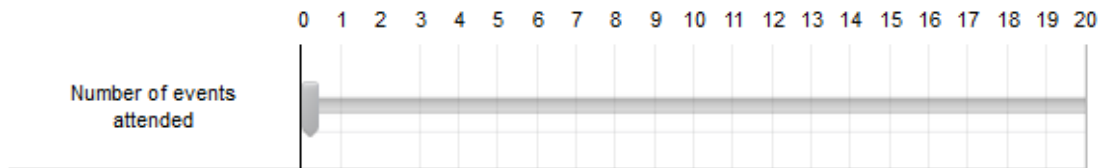
Do you currently hold an executive position in your organization?

- Yes
 - No
-

How many events does your organization have per year?

- 1-3
- 4-6
- 7-10
- 10-15
- 15+

How many of your organization's events do you attend each year?



How long have you been in this organization?

- Just joined
- 3 months - 1 year
- 1-2 years
- 2-3 years
- 3-4 years

How long have you been an active member in this organization?

- Just Joined
- 3 months - 1 year
- 1-2 years
- 2-3 years
- 3-4 years

What is/are your area(s) of study?

- Arts and Sciences
- Business
- Engineering
- Pre-Professional Studies
- Other

What is your class level?

- First Year
- Second Year
- Third Year
- Fourth Year

What do you consider your ethnicity/race?

- White
- Black, African American, Negro
- American Indian or Alaska Native
- Asian Indian
- Native Hawaiian/ Other Pacific Islander
- Chinese
- Filipino
- Japanese
- Korean
- Vietnamese
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander
- Other Asian
- Hispanic, Latino, or Spanish origin
- I choose not to answer this question

>>

Debrief

Thank you for participating in this research study!

Our project focuses on student-led organizations at Worcester Polytechnic Institute. We aim to explore the correlation between organizational variables and success, by conducting several methods of data collection in a sample of student-led organizations. We will study the effects of the following predetermined variables: gender in the workforce, organizational hierarchy, leadership styles, and characteristics and traits of a leader. Our exploratory research will allow us to discover what variables might be important to the success or failure of student-led organizations. We asked you these survey questions to view your perspectives on our predetermined variables within your own organization. Correlations will be made by gathering data on what organizations are more successful based on membership engagement than others and how those respective organizations structure themselves in terms of the predetermined variables. All answers of this survey will remain confidential and anonymous, and will remain only within the research team and professors. You and your organization's name will not be included in any public report. If you have any concerns please feel free to contact the WPI IRB or the research team. The contact information is below.

Contact information: If you have concerns or questions about this study, please contact Tyler Alexander at tbalexander@wpi.edu , Nysa Casha at nmcasha@wpi.edu , or Angelica Zawada at amzawada@wpi.edu.

In addition, the contact information for the IRB Chair (Professor Kent Rissmiller, Tel. 508-831-5019, Email: kjr@wpi.edu) and the University Compliance Officer (Michael J. Curley, Tel. 508-831-6919, Email: mjcurley@wpi.edu).

We ask that you please not disclose this information to others, as this study is still ongoing.

Appendix K – Focus Group Analysis Chart

<https://docs.google.com/spreadsheets/d/14eWkmQJ8D5-ehNGEBML 2-7jz8bMmJaD1g4N03OwaRQ/edit?pli=1#gid=1888071881>

Appendix L – Interview Questions Data Analysis

Organizational Hierarchy	Characteristics and Traits	Problems/Areas of Conflict
Leadership Styles	Membership engagement	

Color Coded Key

Presidents of Samples Organizations Responses to Questions

<https://docs.google.com/spreadsheets/d/14eWKmQJ8D5-ehNGEBML 2-7jz8bMmJaD1g4N03OwaRQ/edit?pli=1#gid=929215167>

Appendix M: Focus Group Session 1

Dec. 10th, 2014 - 2pm

SL 011

A

B

C

D

Names of participants were not used for anonymity purposes throughout the focus group transcriptions. In their place, a letter has been used to represent the person a comment has been associated with. The participant's club and/or organization affiliations will also be omitted, but the type of club or organization will be stated, i.e. club sports, honorary, etc. Due to discrepancies in this audio, parts of this transcription may not be an exact replication. Any identifiable information from the transcript has been redacted and replaced with an "X".

Angelica: Thank you all for coming today. My name is Angelica Zawada and I'll be running this focus group. Please take a moment to read and sign the informed consent. Please let me know if you would like to have a copy of it. You can pass them to me once you are done. As mentioned in the email to you, here are your Amazon gift cards for participating. [Gift cards were handed out.] If you could please take a moment to introduce yourselves, what organization you are representing today and your position in that organization, then we may begin.

A: President – Club Sport

B: Secretary – Honorary Society

C: President – Professional Society

D: Treasurer – Music and Performing Arts

Angelica: Our project is focused on how variables such as gender, hierarchy, characteristics and traits of a leader, and leadership styles affect the success of an organization, where success is in terms of membership engagement. We will make recommendations based off of our data as to what makes an organization successful.

To begin, what membership engagement challenges does your organization at WPI face?

B: Membership engagement?

Angelica: Yes, membership challenges.

B: I can go first. We are an honor society, so you have to be eligible to join. We don't know who is eligible to join and it takes a lot of time to find out who is eligible to join. The advisor must find out this information and the drawback is we have to wait for members.

C: For us I guess, few people have this as a major. Therefore, we get more sophomores than any other grade and seniors don't want to go to the meetings because the meetings are repetitive.

D: People will do it for a while, then get too busy. People don't want it to be that strict, but it's a performing group. After a performance people want to join, which is difficult because we have to get them up to speed. But the organization is good at maintaining a core group thus far. We never know who is going to drop.

A: For us, it is hard to motivate people to come. It is competitive club, and homework isn't an excuse because everyone has it. I want members to want to be there, not just be there when the weather is good and they don't have work. They need to train. The challenge is getting people to come every week.

Angelica: How would you utilize the data we would collect for your organization?

D: Are you guys going to give suggestions and then we figure out if we can apply those?

Angelica: Our goal is to make recommendations to everyone. It wouldn't be solely based on your organization, but it would be provided to everyone.

D: I would want the recommendations you will make. Officers would look at most of the information and use the ones they can apply to their organization. We would try out the recommendations to see if they are helpful.

C: I would see what your suggestions are and the problems that are similar to our club. Then I would talk to exec about recommendations. Then I would give out a questionnaire to members to see if they think the particular problems you have listed are problems they see in our organization by asking something along the lines of do you think we have a bad this... in our organization and then depending on their answers go from there.

A: Similar to that, it would open up more dialog with members and officers. I would want to have suggestions to get people more engaged and come to meetings

B: We don't do much as of now. I think we plan to do more when we get more members. Membership involvement is a big problem and the club has only been here since XXXX. No one has taken a step to change it and become more interactive and do more things with the club. It's hard to define what is an honor society and I would want to know what other honor societies do.

C: I have the same problem. Only small percentage can get into the honor society version and it doesn't do much. We are the equivalent professional society and don't do a lot too, so we co-sponsor events with honor societies.

Angelica: What is the best way to present this data to you?

C: A pamphlet is short, sweet and concise. It could have problems identified, solutions and suggestions to implement solutions. If we could have a consultant to show us our problems, like an outside person telling the organization, rather than someone in it they could take their opinion more seriously.

A: I like a model or a power point with key results or voice over power point, for the same reason.

B: Something electronic sent to my officers would be good.

D: I would like you all to come in and talk to the group because I think an outside perspective would be more influential too.

Angelica: Do you think this should be provided for the general public (such as anyone at WPI who wants it, besides displaying it on the project site)?

D: You could send a campus wide email with the results and suggestions.

C: I don't know if it should be send out to all of campus, but maybe through the SAO office.

D: Yea that's what I meant.

C: Maybe give your information to the SAO office. It could also be put on OrgSync by organizations. A resource guide might be good to use to make a checklist for your organization.

A: I don't know if you should give it to all of the students. It could help students start clubs and give people something to start up brainstorming and communications between groups about leadership styles.

C: The good thing about OrgSync is that there is an orientation for presidents and treasurers you know. They always have a packet so maybe you could put in that or a presentation.

Angelica: When does this usually take place?

C: They usually do it in A term and then in the Spring.

A: There could be an info section if lets say you're the new treasurer that you could go to if you're new to exec.

Angelica: What information would be most meaningful in receiving as the leaders of your organizations?

B: If you could incorporate honor societies and professional society, so we could see how to promote an honor society.

C: That's pretty common for those types of societies. Most professional societies and honor societies don't do anything. It would be nice to look at how to target different types of people within your club, commitment levels, and key attributes of an event that creates value for an entire club. We want to come up with an event that provides value to the general members.

A: One thing I have been trying is increasing communication with people all over the club. Its okay if you don't show up, but you have to tell me. External resources that are helpful would be like books or encouraging people to take Bus 1010 might be useful.

C: If Bus 1010 was a social science requirement a lot more people would take it.

(Collective agreements)

D: One thing we don't want to do is scare people off or be too harsh because we want members, but we also want engaged members. Tips for this would be helpful.

Angelica: Would you disclose this information from our research to your members specifically or would you work internally with your executive to make changes based off of our recommendations?

A: I could see us try to disclose the info to members, but not tell them all the problems. We want to be transparent with members, and don't want officers meeting behind doors. At the same time, we would keep the problems on a need to know basis and be subtle.

B: We would probably discuss within the exec board and then talk to members. We want to be very open with club, so that we can go over suggestions to help members be more involved.

D: If we do anything that affects members then we would tell them, otherwise the info would just be for exec. Obviously stuff like membership we would want to know if members would be open to changing styles or not.

Angelica: Lastly, we touched on this a little but would this information be helpful to you, and if so how?

A: Getting feedback is crucial from a 3rd party. The feedback will let us know if everyone is having the same problems and giving us suggestions for ways to grow will be very helpful.

(Everyone agrees)

Angelica: Can we contact you in the future if anything comes up?

All: Yes

Angelica: Again, thank you all for coming today. Please let us know if you have any questions for us. Please feel free to grab more pizza or soda before you head out.

Appendix N: Focus Group Session 2

Dec. 11th, 2014 - 2pm

SH 309

E

F

G

H

I

Names of participants were not used for anonymity purposes throughout the focus group transcriptions. In their place, a letter has been used to represent the person a comment has been associated with. The participant's club and/or organization affiliations will also be omitted, but the type of club or organization will be stated, i.e. club sports, honorary, etc. Some position names were detailed for certain organizations, which took away some of their anonymity. Therefore, those position names were replaced with the title Officer. Any identifiable information from the transcript has been redacted and replaced with an "X".

Angelica: Thank you all for coming today. My name is Angelica Zawada and I'll be running this focus group. Please take a moment to read and sign the informed consent. Please let me know if you would like to have a copy of it. You can pass them to me once you are done. As mentioned in the email to you, here are your Amazon gift cards for participating. [Gift cards were handed out.] If you could please take a moment to introduce yourselves, what organization you are representing today and your position in that organization, then we may begin.

E: Treasurer – Professional Society

F: Officer – Society Awareness and Community

G: Vice President – Club Sport

H: Vice President – Music and Performing Arts

I: Officer – Programming

Angelica: Our project is focused on how variables such as gender, hierarchy, characteristics and traits of a leader, and leadership styles affect the success of an organization, where success is in terms of membership engagement. We will make recommendations based off of our data as to what makes an organization successful.

To start off, what membership engagement challenges does your organization at WPI face?

I: Ours is an interesting situation. The actual action of our club is not the highest engaging. When doing XXXX XXXX you are in a room by yourself for an hour so keeping people engaged here is a problem. The biggest is keeping people engaged throughout the year in the club, inside and outside of the club.

H: Trying to get people interested in something they have never done before. Mix people with musical experience with those who do not. Try to find something that works between the different experiences.

G: Trying to get everybody involved. We don't have actual meetings since it is just pay and go play. Just trying to know and keep track of everybody.

F: Only one general body meeting per term and sometimes they are not the most publicized. In the beginning more people show up, but towards the end of the year not as many people are showing up or volunteering for things. Trying to keep everyone engaged throughout the year.

E: Sometimes when we do events, students only think events are for international students. For XXXX the main issue is that because we are under the XXXX of XXXX we are a small group of students pretty much. How do we advertise to other students outside the XXXX? How do we move from XXXX to the school as a whole.

H: Like with most clubs its getting people at the beginning of the year and getting them used to the routine schedule.

Angelica: How would you utilize the data we would collect for your organization?

F: What kind of data?

Angelica: Whatever that means to you and your organization. In what form would you want this?

I: It would be useful after the beginning of the year to have some sort of statistic or metric of how often people stick with clubs and engagement. As a freshman, I would sign up for dozens of clubs at activities fairs and would only show up at a couple that caught their interest. It would be interesting to see what clubs people go back and what those clubs are doing that is different than others.

E: Having statistics or when officers are doing transitions to set the status of what you want to see in that club for that year. WPI is moving towards OrgSync, so by having some sort of slides or forms that get right to the point that clubs can access in the portal and do as part of their transition training.

Angelica: What do you think about that?

G: Yea I agree with that.

H: The only problem with that is that not all clubs have elections at the same time. So if an email were sent out notifying them of these statistics it may not be as useful to those transitioning later. If it was on OrgSync it could work, but its just a matter if people would remember its there and go back to it.

I: We found OrgSync to be a little more useful this year. We started using attendance features for meetings this year based on points for attendance, etc. OrgSync training as a whole might be interesting. Not a lot of people know these features are useful.

G: I think utilizing OrgSync as much as you can.

F: Our club does not use it so much so having something to show us how to use it more.

H: I didn't know about that attendance feature. I think a training session would be really helpful.

Angelica: Awesome, any additional comments before moving on?

(None)

Angelica: Great. How would you use data in terms of your own organization?

F: See what we need to improve. Maybe it would be useful to see how other clubs are doing. For example the big clubs maintain their membership and maybe see what they are doing and what we could be doing.

E: Maybe it would be helpful to see who you are reaching freshman, sophomores, seniors, etc., what are your main academic numbers? Then, you can organize and focus events based on year such as freshman and seniors. A senior wouldn't want the same events as a freshman, so then you can plan accordingly.

I: I agree, being able to get more information about the demographics you're reaching as a club will definitely save more time to get more people and increase membership.

H: I think it would be useful to see statistics from previous years as well. We had problems with leadership in the past. When I joined, membership was at 2 people, so it would be helpful to see what they did and what went wrong.

Angelica: Do you think this information should be provided to general public? And how should it be provided if you do think it should be provided to the general public?

G: Do you mean OrgSync? I think it would be cool to see it besides on an MQP site. I don't know where you'd put it. I don't know how many people are going to sit down in a web guide and look for it.

I: There are certain training sessions that certain officers of each club need to attend. Each year a couple of officers go, usually the president and treasurer need to go. Part of the training sessions put on by the SAO could be a summation of statistics or presentation as a start up packet of new executives.

E: I do not like using the library portal because you get lost. Maybe an info graphic where you focus on the key points. "How to WPI". Welcome to being an executive, here is your package. Like, having a piece of paper extract?

G: Like a quick overview?

E: Like a quick overview. If I am a new executive, I will not read a 40-50 page MQP.

H: I agree. I was always going back to resources I got early on as well. If it was physical that would be good.

E: It doesn't matter to me if it's physical. I would just want a quick overview, does not matter where it is put.

F: I would think it would be helpful if it was online.

Angelica: What information would be most meaningful?

E: Going back to the Freshmen, Sophomore, Senior, demographics would be helpful to plan accordingly.

I: Some sort of metric of how much time club members have free to put into a club. It is a problem in our club and I am sure it is a problem in other clubs. People that want to be active in a club may just not have the time. Any sort of metric to expect people to have a certain amount of time would be a bit more useful for us.

Angelica: Any other comments?

(None)

Angelica: Would you disclose this information from our research to your members specifically or would you work internally with your executive to make changes based off of our recommendations?

H: We are a very unified group and everyone makes decisions together. We would probably share it with everyone.

G: We are a very large group, so we would probably do the opposite. We would work with the executives first and then maybe open up to general body. We don't meet often, so it would be tough.

F: We would probably meet with exec first and then the general body after.

E: I think we would keep it to our execs first and see how we can move forward. I will keep it first to execs and work from there.

I: I agree, most of the way we do strategic planning like recruitment or fun events. We would talk to exec first. A lot of events are open to general body, so once a plan was based around this information we would share it with the general body.

Angelica: Would this information help your organization and if so how?

I: Like I said I think it would be useful in the planning of events. Especially towards the beginning of the year for things like activities fairs and the planning of events, and supporting other clubs events. If we knew better what kind of people attending would be there and who we would be reaching it would be better to prioritize.

G: I agree.

E: I think that is the main thing we would do with that.

F: It would be useful how many freshman and sophomores they would be reaching. As they get older, people don't quite go as much. Maybe so we know how many of each group there are. And have a way to ask specific classes on what would encourage people to come, such as seniors.

H: Not sure on how much difference this information would make to this organization. Pretty open to this anyway.

Angelica: Any last comments on anything we covered?

(None)

Angelica: Can we contact you in the future if anything comes up?

All: Yes

Angelica: Thank you all for coming today.

Appendix O: Focus Group Session 3

Dec. 12th, 2014 - 3pm

SL 105

J

K

L

Names of participants were not used for anonymity purposes throughout the focus group transcriptions. In their place, a letter has been used to represent the person a comment has been associated with. The participant's club and/or organization affiliations will also be omitted, but the type of club or organization will be stated, i.e. club sports, honorary, etc. Due to discrepancies in this audio, parts of this transcription may not be an exact replication. Some position names were detailed for certain organizations, which took away some of their anonymity. Therefore, those position names were replaced with the title Officer. Any identifiable information from the transcript has been redacted and replaced with an "X".

Angelica: Thank you all for coming today. My name is Angelica Zawada and I'll be running this focus group. Please take a moment to read and sign the informed consent. Please let me know if you would like to have a copy of it. You can pass them to me once you are done. As mentioned in the email to you, here are your Amazon gift cards for participating. [Gift cards were handed out.] If you could please take a moment to introduce yourselves, what organization you are representing today and your position in that organization, then we may begin.

J: Vice President – Society Awareness and Community

K: Officer– Honorary Society

L: Secretary – Governance

Angelica: Our project is focused on how variables such as gender, hierarchy, characteristics and traits of a leader, and leadership styles affect the success of an organization, where success is in terms of membership engagement. We will make recommendations based off of our data as to what makes an organization successful.

To begin, what membership engagement challenges does your organization at WPI face?

J: Our general body meetings have 5 people show up which is frustrating. The club mostly does fundraising and volunteering XXXX. We have tried to fix membership engagement, but it's been hard to retain members. We've tried to do more socials together like making gingerbread cookies for donations where we all got together one

night to make them. We are trying to make the club more friendship oriented, so we've been doing icebreakers at almost all general body meetings.

K: Our organization died last year. So we had 5 execs step up to begin the organization again. We are gathering info on how to induct new members. We are trying to get the word out, since it wasn't active last year. We really want to learn what the organizations values are and what we want our chapter's specific values to be, since it is a national honor society.

L: Our attendance for meetings is pretty good. Our biggest challenge is that our members need motivation and drive. We want our members to have their own initiative to get things done. Some people wait to be told what to do and take too much time to finish it because they are not engaged.

Angelica: How would you utilize the data we would collect?

K: We will benefit greatly from it, since we are a new organization anything helps. Two members on exec are sophomores and would want your data to go off of. We could base strategies for membership management and engagement off of your research.

L: I guess I would like to know if the challenges we are facing are also being faced by other organizations on campus. Then, we can see what people are doing differently so we can overcome or understand why we have these challenges. We want to know what our members want, so it would be good to have an outside perspective.

J: We want to add more committees, so I would want to see what other organizations with committees do to get an idea. We only have one or two men in our club, so another thing we would be interested in is sparking interest for men and how to do that.

Angelica: Any other comments?

(None)

Angelica: What is the best way to present this data to you?

L: I would like someone to present a bigger overview of the problems you see to members.

So give the executive board a list of problems they face and make them come up with solutions. Or present the big problems to the organization members at large and see what they come up with for solutions so it's interactive and gives the members what they want.

K: I think people would want numbers rather than text in looking at data you give to us.

J: An oral presentation to the general body would be really helpful, so it's someone outside of exec that they see all of the time.

K: I agree with that. It is hard for exec to provide the information about problems to members. We would rather a 3rd party come in and describe what went wrong.

Angelica: Do you think this should be provided for the general public (anyone at WPI who wants it, besides displaying it on the project site)?

L: I think the feedback would mainly benefit organizations on campus rather than just the general public.

J: I agree with that.

Angelica: Any more comments on this question?

(None)

Angelica: What information would you be most meaningful in receiving as the leaders of your organizations?

J: It wouldn't really benefit the general body unless data was presented in a way that the general body of the organization could start fixing the problem. I think exec would use this data a lot. Exec uses a Google drive so it may be helpful to have it electronic to put it there. Freshmen have no idea how OrgSync works.

L: I agree it should be electronic based.

K: Same.

J: I also would want to see how larger organizations become successful, so our organization can move towards that.

Angelica: Any additional comments?

(None)

Angelica: Would you disclose this information from our research to your members specifically or would you work internally with your executive to make changes based off of our recommendations?

J: I think we would work more internally with exec, and then see what the general body thinks.

L: I think it would be good to present the results at senate, so everyone can build discussion off of it. It would be good to create information from the data that shows people how to improve their organization. There would be different perspectives in collecting data and when looking at it, it helps executives understand the issues. In regard to looking at our data, the information would first be given to the exec board and then they would decide what the general body members get to see, so they do not have to deal with petty problems.

K: Seeing responses from other organizations will help us know what to do in the future because we are still a new organization. This would just stay with exec because we don't have members yet.

DETERMINANTS OF SUCCESS IN WPI STUDENT-LED ORGANIZATIONS151

Angelica: Would this information help your organization? If so, how?

L: I think it would help rethink what we are doing and make sure it's good.

K: It would help us get started as an organization.

Angelica: Can we contact you in the future if anything comes up?

All: Yes

Angelica: Again, thank you so much for coming today. We really appreciate it.

Appendix P: Focus Group Session 4

Dec. 13th, 2014 - 12pm

FL – Beckett Conference Room

M

N

O

P

Q

Names of participants were not used for anonymity purposes throughout the focus group transcriptions. In their place, a letter has been used to represent the person a comment has been associated with. The participant's club and/or organization affiliations will also be omitted, but the type of club or organization will be stated, i.e. club sports, honorary, etc. Some position names were detailed for certain organizations, which took away some of their anonymity. Therefore, those position names were replaced with the title Officer. Any identifiable information from the transcript has been redacted and replaced with an "X".

Angelica: Thank you all for coming today. My name is Angelica Zawada and I'll be running this focus group. Please take a moment to read and sign the informed consent. Please let me know if you would like to have a copy of it. You can pass them to me once you are done. As mentioned in the email to you, here are your Amazon gift cards for participating. [Gift cards were handed out.] If you could please take a moment to introduce yourselves, what organization you are representing today and your position in that organization, then we may begin.

M: Vice President – Honorary Society

N: Officer- Society Awareness and Community

O: Officer– Honorary Society

P: Officer - Religious

Q: Treasurer – Sports Club

Angelica: To begin, our project is focused on how variables such as gender, hierarchy, characteristics and traits of a leader, and leadership styles affect the success of an organization, where success is in terms of membership engagement. We will make recommendations based off of our data as to what makes an organization successful.

- What membership engagement challenges does your organization at WPI face?

Q: Our club is really active in C and D term. Not really A and B term. So our main challenge is getting people to be active during the off seasons.

M: One challenge is that membership overlaps with [XXXX]. Most of members are already part of one or the other so members are drawn into different directions. A lot of the officer positions overlap between the three. So a lot of the difficulties we have is making sure the activities are separate and diverse.

O: Our organization was on campus before and died. We are in the process of rebuilding. People who have known about it before have this perception and getting people to join is hard.

N: Our organization does a lot of campus activities and providing off campus transportation causes difficulties in commitment because they usually require two-hour shifts. This causes problems for people with classes.

P: The biggest challenge is keeping things interesting and new. Every week we have a speaker come in and just trying to keep those topics new and relevant to what people are facing in real life is sometimes challenging.

Q: I thought of something new. XXXX took away our gym credit, so it's a big deal.

Angelica: Does anyone have anything else to add?

(No)

Angelica: How would you utilize the data we would collect?

Q: I would trust you and take whatever recommendations you have.

N: I think we'd just try different ideas.

M: Would you make recommendations based on the size of the organization?

Angelica: We are trying to look into that. It depends on the response rate from survey. We are trying to make generalizations based on size and type, such as programming, government, club sport, whatever it may be.

M: I'd be game for trying it. Everything is worth a shot. We keep trying to change things to keep everyone involved, but not keep them so busy that they go: I don't have time for this at all.

P: A list of ideas is always helpful and welcome.

O: At this point for us we just need new ideas, so this would be very helpful.

M: Anything besides giving people active membership status is the number one idea I've seen tossed around, and it works sometimes, but it just seems hollow.

N: This is also hard on freshman or people with genuine conflicts. In general, it's hard to penalize for conflicts. Sometimes the only idea for membership attendance is food.

Q: Yea, it seems to be incentive based to get people to come.

Angelica: What is the best way to present this data to you?

Q: You will be using Qualtrics right?

Angelica: Yes

Q: So maybe, showing me the charts on Qualtrics and based conclusions on this, that would be nice.

M: Depending. I'm curious about results in general. If there are different categories, maybe separating them out and making specifics on those.

N: Possibly get information from general members in the future and see what their opinions are.

P: Try to avoid presenting the data in one giant paper. Have a list of things and reference the paper for more detailed things, but if it's just a 40 page section of a paper, I wouldn't read it.

O: Categorizing it by size and issues.

M: Also, there is difference in organizations between Greek and non-Greek. Membership in involvement is very different. Because Greek life is very involved and time commitment the number one reason is losing people to events they are required to go to for Greek life. There is too much going on with Greek life to participate.

Angelica: How do you all feel about that?

M: I agree

N: I agree

P: This can also be applied to music groups and varsity athletics. We have many officers who are involved in sports and they miss meetings or show up late. We have to schedule officer meetings around them and it's a toll.

Q: I think Greek life and athletics is a good idea, but I think the accelerated program of WPI in general is just way too busy. It all can be lumped together in WPI's atmosphere.

N: I was on varsity team freshman year; it was a huge time commitment and was not very enjoyable.

M: Q brought up a good point about the WPI atmosphere and the quarter system. Like the last couple weeks of term you are planning an event that isn't super organized just to do stuff. It makes it hard to keep up in attendance.

P: I would actually disagree with you. At XXXX we had a XXXX XXXX and it was off campus. There were seventy-five people show up last night and it was combined with two other organizations.

M: Really, I'm really curious about this. What time did you guys leave and get back?

P: 6:30pm and 10:30pm. It was an idea to just show up, hang out, and play games.

M: That's cool, I'm glad it was successful

Q: Did you advertise it as a big event?

P: Yes, just a couple of emails were sent out and a couple mentions at general body meetings.

N: I think collaborations with other clubs helps out a lot. People want to meet new people. And if they are in both, they are more likely to show up to the event. In general, they are just pretty successful.

O: The time you chose is also very good.

P: Our general body meetings are Friday nights 7-9pm.

M: I try to avoid Friday meetings because no one will show up.

Angelica: Do you think this should be provided for the general public (anyone at WPI who wants it, besides displaying it on the project site)?

P: Your data?

N: I think anyone who wants it.

P: It will be publically available right?

Angelica: Should it be publicly available besides just displaying it on the site though?

M: Somewhere there is a list of club resources. It would be a good place to put it.

O: What about putting it on the SAO OrgSync page? So if people wanted to find it it would be there.

Q: I think that is a good idea. I don't think a general email to campus would do anything good.

M: Maybe have something available in SAO.

P: Make sure XXXX and other personnel know where it is.

M: A flier could be passed out in every box too; mostly just for the officers.

O: An email could also be sent out to all club presidents, stating where the information is if they wanted it.

Angelica: What information would you be most meaningful in receiving as the leaders of your organizations?

M: An example?

N: Maybe like the success of mandatory requirements? If it's worth it or would it make them just want to drop out?

M: Information about what other people are doing.

Q: Figure out what other people are doing that is successful?

P: Leadership development. We won't even look at applicants until the tail end of sophomore year or Junior year for academic societies.

M: That is so true, nobody ran unopposed. It is hard to get people to run for positions.

Angelica: Anyone have anything to add to that?

Q: I noticed the treasurer position is the hardest to get people to join.

P: The treasurer documentation on banner web is so awful. There needs to be a guide in the SAO office on here is how to do a budget and treasurer stuff and to my knowledge it doesn't exist.

Angelica: Do you guys agree with that?

Q: Club sports has treasurer meetings, but I think it could be better improved.

N: There is one for people not in club sports

O: I know that in another honor society we ended up doing it as an entire E-board, but our treasurer came on late.

N: Last D-term the treasurer had no budget got submitted because there was an interim in that position. It is tough that one thing from an interim can mess up an entire year.

P: Funding is such a big deal.

N: Some of the adults in charge are intimidating about things. If you do something you get in trouble and get yelled at, rather than being told how to do it.

Q: Yea, it becomes more a chore than a fun activity.

Angelica: Would you disclose this information from our research to your members specifically or would you work internally with your executive to make changes based off of our recommendations?

O: We don't have members so it would be within the exec.

Q: It would follow a hierarchy and start with president first and it would go from there. If we feel its necessary then we can tell the general body.

M: First go to exec board and see what are favorite points, and then go to general members to get their opinions and interests.

N: We already ask what people think and improve, so maybe we could do the same with this information.

(General consensus agreed.)

Angelica: Would this information help your organization? If so, how?

Q: Hopefully it would increase membership activity. In getting new members to join and remain active.

M: Hopefully it will make it easier for clubs to exist for years to come.

N: Keep retention from NSO to C-term

O: I think it would help up build and get us a new image on campus.

P: It had been said.

Angelica: Can we contact you in the future if we come up with further questions?

All: Yes.

Angelica: Thanks for your time. Please feel free to grab some more pizza and drinks on your way out. If you have any questions for us in the future, feel free to contact us. Thank you again for coming today.

Appendix Q: Presidential Interview Data

<https://docs.google.com/spreadsheets/d/14eWKmQJ8D5-ehNGEBML 2-7jz8bMmJaD1g4N03OwaRQ/edit?pli=1#gid=784882048>

Appendix R: Administrative Interview Data

<https://docs.google.com/spreadsheets/d/14eWKmQJ8D5-ehNGEBML 2-7jz8bMmJaD1g4N03OwaRQ/edit?pli=1#gid=1966806877>

Appendix S: SAO Personnel Interview Data

<https://docs.google.com/spreadsheets/d/14eWKmQJ8D5-ehNGEBML 2-7jz8bMmJaD1g4N03OwaRQ/edit?pli=1#gid=211150607>

Appendix T: Increasing Membership Engagement within Your Organization Handout

Engaging members can be difficult year after year. The leaders of an organization play a significant role in engaging members of their organizations. Below are a few leadership tips and suggestions on how to keep that engagement year round within your own organization.

1. Identify Future Leaders

Look for members that embody the traits and characteristics listed below for future leadership positions. In addition to those listed, it is important to avoid drastic changes in leadership personalities from year to year.

- Organization
- Listening Skills
- Innovation
- Enthusiasm
- Good Communication Skills
- Building Community
- Stewardship
- Awareness
- Commitment to the Growth of People
- Foresight
- Flexibility
- Conceptualization

2. Make a Transition Plan

Transition plans will help new and old leaders transition smoothly. Setting a guideline will help new officers understand and be trained in the history and processes of the club, as well as past challenges faced within the organization. Some things to consider:

- Mission and goals of the organization
- Rules and regulations for the organization/club
- Evaluations for past events and projects
- Contact information for essential personnel related to the position
 - If applicable, make introductions

- Member and executive contact list
- Log in information and training for websites and Orgsync
- Financial information
- Past agendas and meeting information
- List of events and procedures for the year
- Historical information on the organization

3. Create a Collaborative and Open Environment

Be engaged and encourage feedback from members. Allowing members to participate more in day-to-day operations will allow them to invest time and feel more engaged within the organization. Encourage participation in your organization. Examples of participatory tactics and principles are listed below.

- Lead by example
- Listen to the needs of members
- Let other members get the credit
- Delegate work
- Hold others accountable
- Make a supportive environment
- Adapt and evolve
- Urge feedback and act on it

4. Get Feedback on How You are Leading

Provide a way for members to rate how the leaders of your organization portray the traits and characteristics used in identifying leaders. The more leaders display these traits and characteristics, the more likely members will be engaged. Some example questions are listed below.

The questions below may or may not describe your executive council. Based on your impression, please rate the degree to which your executive council portrays a behavior on a scale of 1- does not portray to 5- actively portrays.

- | | | | | | |
|---|---|---|---|---|---|
| 1. Listens to suggestions and feedback for improvement. | 1 | 2 | 3 | 4 | 5 |
| 2. Builds community with other groups and functions. | 1 | 2 | 3 | 4 | 5 |
| 3. Lives by the organization's values. | 1 | 2 | 3 | 4 | 5 |
| 4. Creates an open environment. | 1 | 2 | 3 | 4 | 5 |
| 5. Works towards long-term goals. | 1 | 2 | 3 | 4 | 5 |