

Internships: Does Length of Time Impact Student Confidence in Key Skills?

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ABSTRACT

The purpose of this thesis is to determine if length of time spent on an internship has an impact on student's confidence levels in information systems proficiency, interpersonal communication, and self-efficacy in the workplace. Applying for and selecting an internship can be a challenging process for college students and understanding from this study if the number of weeks or hours has an impact on learning is designed to make that process easier. This study was conducted through a thorough research analysis of the current literature related to internships and their impacts on a student's education. A survey was then distributed to Bryant University students and alumni asking them to share their experiences on their own internships and rate their opinions on various questions about what they learned from their internship related to Information Systems Proficiency, Interpersonal Communication, and Self-Efficacy. Ultimately results showed that length of time did have an impact on how students rated their confidence in those categories. Length in weeks was shown to have more of an importance than length in hours did. As well, ultimately most students agreed that they would have learned more if they spent more weeks on their internship experience and not necessarily more hours. This data ultimately showed that if students are looking for the best opportunity to learn from their internships, they should be looking for an internship longer than 10 weeks and/or longer than 40 hours per week.

INTRODUCTION

I was inspired to begin my honors thesis related to internships after completing the Disney College Program in my sophomore year at Bryant. I spent six months in Florida working for The Walt Disney Company as a Bell Service Dispatcher for Disney's Contemporary Resort. I had felt like I learned many skills during my time and was truly feeling like there were benefits to having been in that experience for so many months and hours. When I returned from the program employers were interested in my experience and it created a unique resume line that many of my fellow students did not have.

I thought back to before I had left, and the difficulties I went through with attaining that opportunity. I did not know about the program through Bryant at all. At the career fairs I went to, employers did not seem interested in me as a young student and I felt like there were not many options for me to work professionally until later in my education. I sought out this program by myself and applied without any of the corporate-university relationships that we benefit from as Bryant students. Before learning about the Disney College Program, I knew nothing about long internships or co-op programs, and certainly did not know that people did them out of Bryant. Beyond my personal lack of understanding, many offices within Bryant were unsure of how to handle my unique "status" while I was away, and I dealt with several bumps along the road. If anything can come from my study and research, I hope to enact a change within the Bryant campus towards further education about types of internship opportunities and how students can benefit from them. In reading my thesis students should be able to better decide what internships are the best options for them and have a clearer understanding of the potential learning outcomes from accepting different internships. I hope no student loses an opportunity like mine simply because they did not know about it or did now know the benefits that they might have by completing it.

LITERATURE REVIEW

This study crosses multiple disciplines including education and psychology so there are different avenues to take in researching and learning about the existing literature. Based on my own experience at Bryant, longer internships in terms of months are not very common but

there is significant research in academia about internships and their success rates. I have had a hard time finding studies and articles that directly correlate to my research related to time, which I view as a positive meaning the data is not accessible for students and that my work will not be reproducing data that someone else has already done. There are significant findings about internships and their success with career placement and student learning, so the topic is relevant to be studied.

One challenge of this study was determining what the "success metrics" are that the analysis will be judging based off. I had two books from when I started college, *Foundations of Learning* by Nadeau and Hazard, which was part of my Bryant curriculum, and *The Secrets of College Success* by Jacobs and Hyman. They both highlight the key skills that students aim to learn in their 4 years while in college. As seen in many sources, skills like public speaking, independence in working, and time-management were stressed. These books seemed to highlight the importance of the skills focused on in this study which are information systems, interpersonal communication, and self-efficacy.

There was some research in related fields of study but using medical residencies to find results. At the University of São Paolo, the medical faculty conducted a study on residency students to see if the length of time of their residency impacted their exam scores. They were grouped by a residency under 2 years, and a residency 2 years or greater. Their MCT, or multiple choice, scores had the same median result but the students who did the longer residencies had higher OQ (open ended question) and OSCE (a type of medical real-world simulation style exam) scores. While both groups were equally capable of multiple-choice style questions, the students who spent a longer time in their residency were able to apply and explain their knowledge better than those who spend less than 2 years on their residency (Souza Santos). I believe that this helps me to predict the data I will most likely see, which is that the longer the students spent on an internship the more confident they will feel in their abilities because they will be able to apply their knowledge to the real world better.

Professor Michael Hergert at San Diego State University conducted a study in 2009 with students from his university. He asked them to rate the correlation between their internship and their course work and to rate how effective they felt the internship was to their college

success. He found that students that were older and students that had higher GPA's rated higher perceived values for their internships than other variables. He claimed that the perceived value of internships is based largely on student demographics and that business programs should put a higher emphasis on the real-world learning that comes from internships and what can be learned outside of the classroom (Hergert). This finding showed me that I need to ask students in my survey to describe how things have changed for them after the completion of their internship. Since Professor Hergert found more successful students are more likely to rate their experiences higher in value, knowing more about the participants of my survey will help me to better filter data so I know I am getting the best responses for my study. This study is the reason why in my survey I asked about their GPA changes and their involvement changes to see if there was any other change besides their perceived skills. Those sorts of things can be good predictors of how successful a student is and how involved they are.

In determining what skills to test for confidence levels of there are many studies that have proven the most important skills for employers to consult. West Chester University published the study "Undergraduate Business Internships and Career Success: Are They Related?" This study identified a 1990 study by Kelley and Gaedeke that claimed there were six skills that were most important to employers: oral communication, written communication, problem solving, analytical skills, computer applications, and leadership/teamwork skills (Gault, Redinton, Schlager). In 1996 another related study by Karakaya and Karakaya also identified a 7th important trait of information processing. The organizers of this study decided to group these skills into four significant groups to their research: communication skills, academic skills, leadership skills, and job acquisition skills (Gault, Leach, Duey). Since this study was related to job placement after internships it makes sense that job acquisition was one of their most important skills. I do not, however, think this is relevant to my research since my target for people to survey will primarily not have jobs yet so there will not be enough data to support any findings I may have. The rest are relevant in that those key skills students want to learn from their internship experiences are also the things employers are looking for in potential candidates.

Internships: Does Length of Time Impact Student Confidence in Key Skills? *Honors Thesis for Hayley Bobok*

The Journal of Employment Counseling posted the article "Benefits of The Business College Internship: A Research Review" that discussed the transition from internship to full-time job offer. This article highlighted a 2003 study that showed that employers ranked problemsolving skills as the key skill to increase student's employability. Critical thinking and written/oral communication were among the other top skills that made students more desired by employers. Studies showed that a student's ability to take what they learn in the classroom and apply it to their work experiences is what determines if they will be successful in their roles. I found this information very useful to my study because having data to support those traits as being essential to employers means they are key skills a student should learn from an internship (Knouse). I will use these in my survey as metrics that students will score their confidence levels in after their interning experience. These will help give an accurate measure as to whether the internship was successful in improving confidence in key skills. That aids in my overall goal of determining if the length of internships has an impact on student success because I will understand how confident they feel in traits employers have identified as the most important, which include information systems, interpersonal communication, and selfefficacy.

A potential bias that this article highlighted for me that I needed to attempt to mitigate is student views on their internship experience vary based on their experiences. If a student felt like they were not valued on their team or did not have a voice, they are less likely to enjoy their experience, so their data may not accurately represent what they gained. All they will remember is that they did not enjoy it. To work with this bias, I am going to ask students their confidence levels on certain tasks instead of just their competencies. The former research that has been highlighted in this article shows that students will not have a clear concept of what they gained if they did not enjoy their experience, so they may not be able to accurately judge it. But their confidence in an area is subjective to them so the measurements are not "right" or "wrong" like asking their proficiencies would be. By basing my research on their opinions of themselves I will work to dissipate that bias as much as possible, though it is not completely avoidable.

Not all learning on an internship is determined by the student, some of what they gain is based on the structure of the internship. In the article "Pipeline to Preparation to Advancement"

several factors of an internship were identified that lead to increased levels of student learning. Most of them being related to leadership availability during their internship and type of work they were exposed to. They found that leadership programs that were based on preparation exercises were going to increase students' perceptions of their own capacities which would lead them to apply for more leadership positions in the future. This means that the better structured the internship was, the better the students would view their experience and thus their own capacities for success (Orr).

RESEARCH QUESTIONS

I had four key questions guiding my research and the creation of my study. The first question asks, "is there an impact of length of time in weeks of an internship on student success and confidence levels?" This question is where I am looking into the length of time in terms of weeks/months to see if there are higher levels of confidence in my key skills. The second question is, "does a longer amount of time doing an internship (in hours) impact students' confidence levels in key internship takeaways?" This is where I will complete a similar analysis to see if number of hours impacts students' confidence levels in those success metrics. My third question addresses other factors beyond time that might have an impact. It asks, "are there any other factors (company, responsibility level in internship, etc.) that can also have an impact?" There are many other factors involved in an internship like company and, for many students now, the impact of Covid-19.

The final question that my project seeks to answer is "how might this information be used to help students in applying for and selecting their internships while in college?" This is certainly the most important piece of my project and seeks to find out how students may utilize the information I have found and better apply for and select what internship experiences they will participate in.

METHODOLOGY

Participants

After filtering out data from the 102 collected responses to my survey 88 of those responses were deemed "useable." Of those 88 responses, only 63 had completed an internship and completed the survey in its' entirety so those 63 were the basis for my analysis. Out of the 63 data responses 12 of them were juniors, 30 were seniors, and 21 were alumni. All participants of the survey data utilized were 20-25 years old. There were responses of students who were 18 and 19 years old but they had not completed an internship, so their data was not used in analysis. 56 of the respondents were female, 7 were male, and 0 answered the other category for gender identity. 61 of the respondents self-identified as white, 1 as Asian, and 1 as something other than the provided options. 59 identified as not Hispanic or Latino and 3 identified as Hispanic or Latino. Finally, all survey respondents identified themselves as residents of a state in the Northeast United States except for 5 who only specified that they live in the United States and did not list their state of residence. As this survey was distributed among various groups like the Bryant University Class of 2021 and smaller groups that I am a part of there is opportunity here for future studies to broaden the range of diversity among responses. Many of my respondents were female and within my general age range as this is the group I most easily have access to but for future studies it should be noted that this sample of the Bryant population might not be a complete representation of the Bryant community and more closely reflects that community of people that surround me like friends and organizations that I am a part of.

Measures

To begin writing my survey I needed to define the metrics that I would be using in the analysis for internship success. After a thorough review of the literature, the skills I narrowed down to are information systems proficiencies, interpersonal communication, and self-efficacy in the workplace as the topmost important skills in determining the success of an internship. I decided that for my survey I would have students rank their proficiencies at these three things before and after their internship completion. They ranked on a scale from no skills at all, familiar but not skilled, learning, intermediate, and advanced. I wanted to give more clarity beyond the traditional 1-5 scale that is frequently used in research studies. By

naming each of these options I was searching to eliminate ambiguity between what two of the rankings may have consisted of.

Something that ended up becoming a large factor in my study was the impact of Covid-19 on internships this year. I have been pursuing this study since before the Covid-19 pandemic became a large hinderance to the internship experiences of students I decided to continue as planned and do my best to mitigate the impact it would have on my data. Rather than changing the project to strictly reflect internship experiences because of Covid-19, I asked students the questions that had previously been planned and asked them at the end some opinion questions and if their internship experience was impacted by Covid-19. As well there had to be a change to my methodology for retrieving my data because so many internships from current Bryant's students were impacted by Covid-19. I had to increase my alumni outreach and their data ended up being very useful in my research study.

Procedures

In distributing my survey, I sent it out to groups that I felt would offer the best data including the Bryant class of 2021 and various clubs and organization that I am involved with on campus. Many responses came in but the statistic that 87% of Bryant's students will complete an internship proved correct for me as many responses that I received were not particularly helpful since they had not completed an internship. This pushed me to reach out to alumni that I was close with to seek more responses so that I would have more data to work with.

SURVEY

Utilizing the findings of my research, I was able to craft the survey that I sent out to the Bryant community (See Appendix B for survey questions). To begin it started with a statement of objectives to inform the participants of what my study was doing and what information I would be obtaining from them. At the end of reading that statement they were asked to manually press that they consented to participating in the study before moving on to the rest of the questions. After that they were prompted into a demographics section asking about age, gender, nationality, etc. This data helped me to better understand the breakdown of

people who took my survey in case there were any resulting findings that might need demographic explanation.

The very first focused question was "have you completed an internship while in college?" For students who answered "no" that was the end of the survey at that point. I realized that someone who has not participated in an internship would not be able to give me accurate data related to internship experiences nor would their perceived skills sets be useful without the "after" data to help demonstrate a difference. Most of the participants answered "yes" to this question and were able to move on to the rest of the survey. There were two participants who answered "maybe" but when they were prompted to explain I reviewed their answers and determined that I still wanted to utilize their answers in my analysis. One had worked during the semester taking classes and the other had completed the internship between graduating from Bryant and beginning their master's program.

After this, students were given the message to pick their most significant internship experience if they had more than one and all survey participants followed these directions correctly except for one and the data collected from that sample was not considered in the final analysis. They were asked here "what company did you intern for?" As well as "what was the name of your position?" Several companies like Grant Thornton, Fidelity, and CarGurus appeared more than once in my responses. For Fidelity there were several people who answered the question but held different internship positions. Grant Thornton also had several people submit responses, but they held the same internship positions within the company. I believe if there had been more repetition of companies or of positions within my data, I could have further analyzed this but since there were few repetitions it did not seem valuable data would come from comparing them. This went against my initial hypothesis; I had thought I would see more repetition amongst the survey responses between companies but there was not nearly as much as I expected.

The next questions asked how many weeks students spent in their internship and how many hours per week they spent working on average. After collecting the data, it seemed that 8-10 weeks was what the average internship consisted of so in analyzing the weeks portions anything 10 weeks and below was considered "normal length" and anything 11 weeks and

over was considered a "long internship." This splitting point matched both what my data seemed to represent as average for length as well as the previously reviewed literature. For the sake of the analysis, I needed to distinguish what would be considered longer and what would be counted in the normal length category. It was surprising to me that I had people answer internships at 2 weeks long. I found this data be helpful as in any normal year I probably would not have seen such short internships but since Covid-19 impacted so many from this past summer I was able to attain data with lengths that short. I was someone who also completed a two-week internship last summer I was happy to see those results come in as I think they really help to show how people were feeling doing a short internship. I set this threshold in terms of hours as well that anything less than 40 hours per week was considered "short" in terms of hours. Any internships that were 40 or more hours per week were considered "longer" than what the average was. Unfortunately, hours do not have such standardized "normal" as weeks tend to because it varies so greatly depending on the job and the internship, so this had to be more judgement based on my data than relying on literature. It is relevant to note that no matter how many weeks or hours someone spends in an internship their success and their learning is self-driven so these are approximates used for the purpose of analysis and should not be taken to represent every student.

The next question was a decision matrix asking students to rate their confidence in the determined skills and rate themselves from "no skills at all, familiar but not skilled, learning, intermediate, and advanced" both BEFORE and AFTER their internship experiences. The participants needed to reflect on their sentiments before the completion of their internship and then reflect on how they feel after their internship. This is where it was essential that they were only rating for ONE of their internships if they did multiple because this involved the direct impact from before and after their experience. For each of the three skill sets I gave the term I used to describe them and in parenthesis gave examples of what that might have looked like for their own experience but not necessarily what it had to be. For information systems proficiency the examples I provided were Excel, Word, and PowerPoint. Interpersonal communication had email correspondence and presentations, and self-efficacy had leadership, teamwork, and confidence. I wanted to leave this open to interpretation as those skills can

vary by person and by internship, but the three overarching themes apply to most internship experiences.

To further gauge what student's may have gained from their internship experiences I asked what involvements they were in before their internship, and quantity, and what involvements they were in after their internship as well as quantity. I also asked if they experienced a change in their GPA after their internship and if they believed it was related to their internship. If they did believe there was a direct correlation between their GPA change and their internship, they were prompted to further explain why they felt that way. For the students that did say "yes" and explain why to me they said generally that they had grown their skills and felt more confident with the material that they were learning in their classes. This helped to show the point from the study in the literature I had reviewed that showed that students who do internships tend to perform better in the classroom as they are better able to apply the data they learned.

As final details to wrap up the learnings from the survey I asked participants if their internship was affected by the Covid-19 pandemic. I have previously stated in methodology that I have been working on this project since before the pandemic began and I wanted to stay consistent with my findings. If anything, I believe it helped me gain more data because the variance on length of internship, especially in weeks, was higher than I would have seen had Covid not been a factor. I asked students this question to see if it would impact the responses, I received but I believe it helped to make the data more useful. Foreseeably Covid-19 will still impact students in the future, but it should be recognized in any implication of my data that many of these responses were impacted and the data might have a certain short-term lifespan since the nature and lengths of internships may be changing.

FINDINGS

Before I began my analysis into the actual length of time and learning outcomes, I needed to sort my data into excel master files that I would be able to use to write my excel codes in separate files. I started by sorting out those who answered "yes" and those who answered "no" when asked if they had completed an internship in college. For the students that said "no" the survey ended as I did not want them completing the rest of the survey since they had

no experience to base their answers on. In the admissions department we share the data that 87% of Bryant students will complete an internship while in college. My survey represented a randomized population of Bryant students and former Bryant students and mine had a 72% rate of "yes" answers. I do not view this discrepancy between the percentages to be particularly meaningful since my randomized sample is meant to reflect the population but will likely not be exact. This first showed me that the Bryant Amica Center for Career Education is holding true to their promise in their job placement assistance and that Bryant is succeeding in helping their student secure internships.

I noticed from the data sorting evaluation that 30% of those "no" answers came from either seniors or alumni of the university. While this response rate does fit with the "normal" for Bryant I wish I could have seen that all seniors or alumni who answered the survey had completed an internship. It seems based on the extensive literature about the benefits of internships that Bryant should consider how to better place students in internships, even if they are only brief ones like some of the short internship's responses I received. Even for people with short internships they showed growth rate in at least one of the skill sets. I do not know whether it has even been considered or not but perhaps Bryant should consider making some level of an internship necessary for graduation, similar to how studying abroad is a requirement for International Business students. This showed me that more research could be done in the future to show maybe which majors or career paths have more success if they have completed an internship and that Bryant could greatly benefit from this research being expanded into the future as well.

After my data was sorted out into master files of whether student has completed an internship or not, I qualitatively analyzed what students answered next to "what company did you intern for?" and "what was your job title?" I was happy to see a wide range of companies and career paths that my respondents had worked in and I felt it well reflected what many Bryant student's experiences are with interning. There were responses for popular companies out of Bryant including PwC, Grant Thornton, Target, Fidelity, and Amica Insurance. I also saw many companies and internships that I had never heard of including GraVoc and TigerRisk Partners. Many students completed internships in business related fields like accounting, finance, marketing, and business development. There were also responses that supported

students from the College of Arts and Sciences like a photography business' Production Intern and an Environmental Education and Aquarist Intern at Seacoast Science Center. I determined that my data for these two questions was strong because there was a wide range of internships and companies that students had worked with and were able to answer my questions about.

The most important question from my survey had to do with asking student's confidence levels in the key success metrics before and after their internship took place. I began analyzing this by separating my data into four main excel sheets: short in weeks, long in weeks, short in hours, long in hours. Using the criteria I established for what is considered long and short respectively I started organizing my data into these categories. I then created separate sheets for each of the three skills and their before and after data to create visual representations of the data. To begin, presented in the following charts are the data for the before and after internship ratings for the OVERALL data. This does not consider yet the differences in hours or weeks. It should be noted that there was one survey respondent who ranked themselves as "no skills at all" for all categories. I did not exclude their data from my analysis because they completed my entire survey and seemingly answered all other questions reasonably except for this one. I have left that data in here but have not considered it a significant point for analysis and have chosen to disregard the data for this question related to that survey response since it is highly unlikely though not impossible that they feel they do not have skills in any of these three categories.

Overall Data

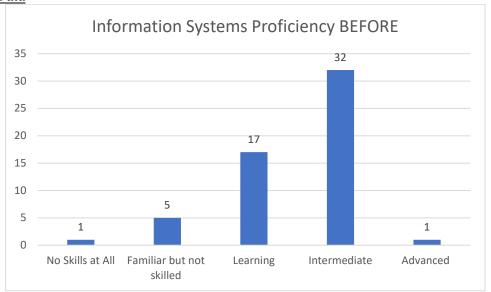


Figure 1 – Information Systems Proficiency BEFORE (All Data)

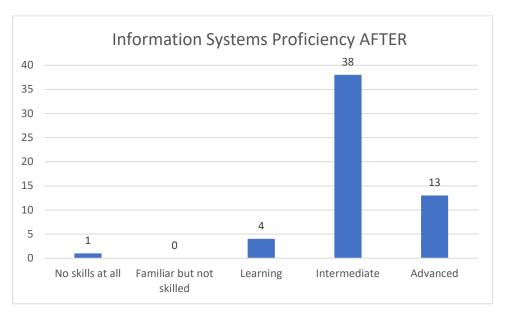


Figure 2 – Information Systems Proficiency AFTER (All Data)

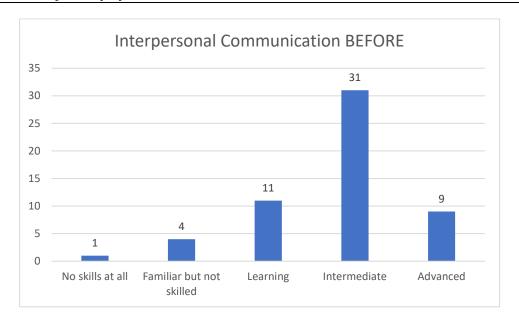


Figure 3 – Interpersonal Communication BEFORE (All Data)

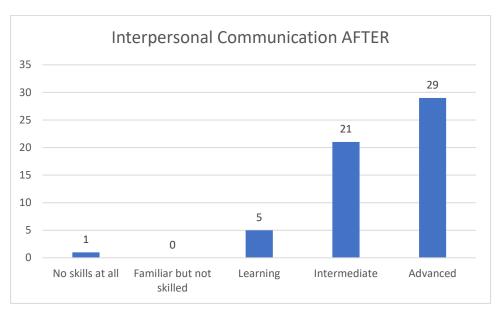


Figure 4 – Interpersonal Communication AFTER (All Data)

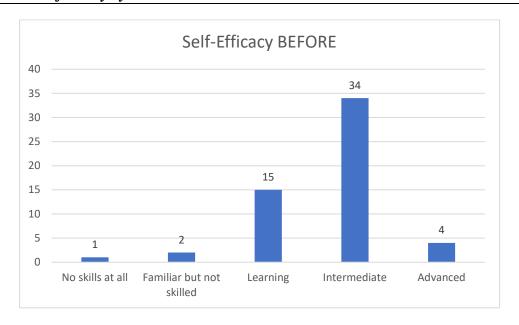


Figure 5 – Self-Efficacy BEFORE (All Data)

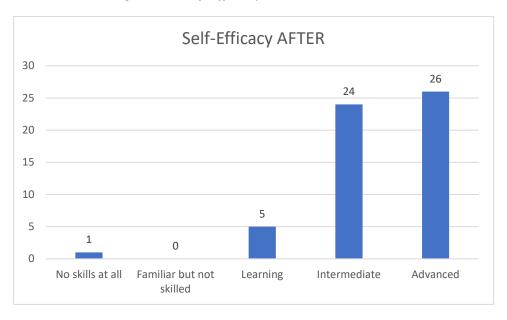


Figure 6 – Self-Efficacy AFTER (All Data)

All three of these skills showed significant increases in the overall confidence levels of students from before to after their internship experience. Information systems proficiency was the category where students started the lowest on average before their internship and interpersonal communication was where students were baseline starting the highest. I was most impressed with the large increase in student's self-efficacy scores though not entirely surprised. Internships are typically a students first experience in the professional world so it is

reasonable that they would have a lot to learn in relation to self-efficacy skills like leadership and confidence in the workplace. Most people do not enter a job and immediately know what they are doing but over the time of learning it they improve, and their confidence grows. I also was not surprised that information systems proficiency was the skill that was skill ranked the lowest on average among all the participants because it can be somewhat vague since not all internships work with information systems. I left examples for what students may consider "information systems" like word and excel but it certainly was not comprehensive of all information systems that they may have learned. There is also the chance that some of these internships did not really use information systems in their job, so I was not surprised to see that it did not drastically increase but I was still pleased to see that some of it did.

After looking at the breakdowns for the overall data I separated out between weeks and hours, and then short and long in terms of time. I began with separating the hours into short and long lengths of hours that interns worked per week. Any student who answered that they worked below 40 hours a week had what was considered a "short hours" schedule and any participant who worked 40 hours or more per week had what was considered a "long hours" schedule. Attached in the following charts are the graphs to represent student's confidence levels using hours of work as the independent variable.



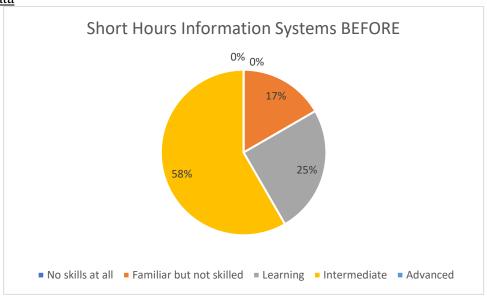


Figure 7 – Short Hours Information Systems

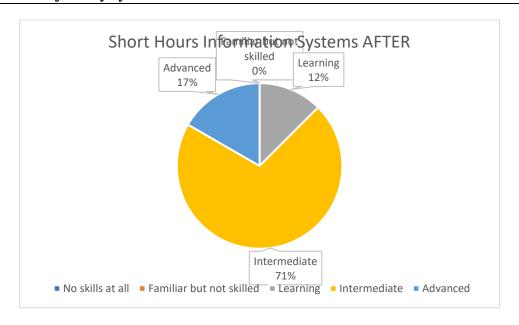


Figure 8 – Short Hours Information Systems AFTER

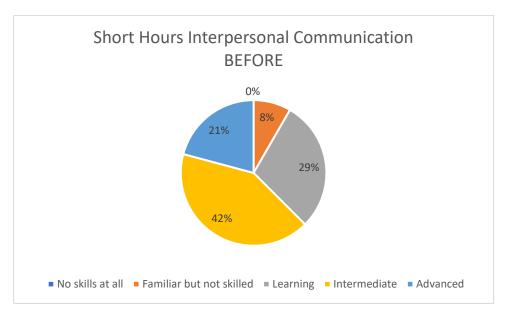


Figure 9 – Short Hours Interpersonal Communication BEFORE

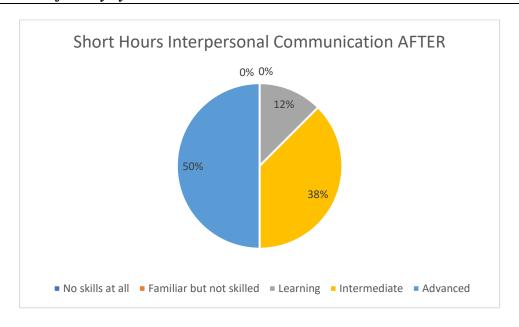


Figure 10 – Short Hours Interpersonal Communication AFTER

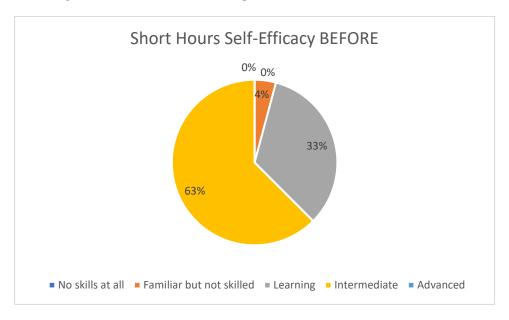


Figure 11 – Short Hours Self-Efficacy BEFORE

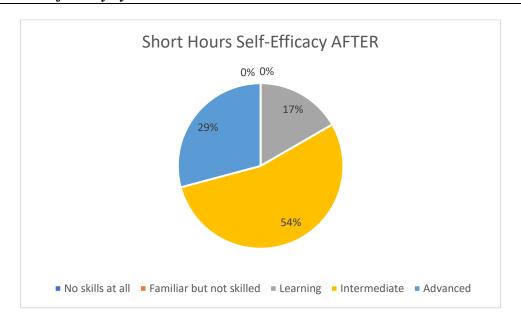


Figure 12 – Short Hours Self-Efficacy AFTER

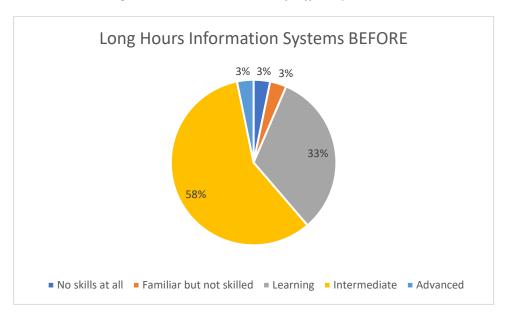


Figure 13 – Long Hours Information Systems BEFORE

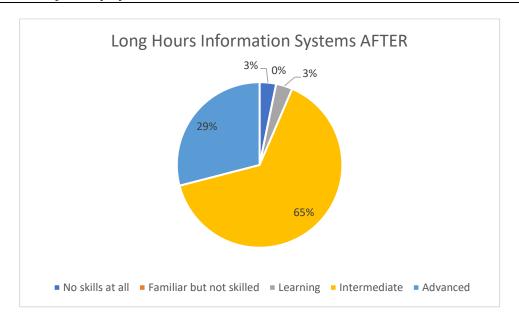


Figure 14 – Long Hours Information Systems AFTER

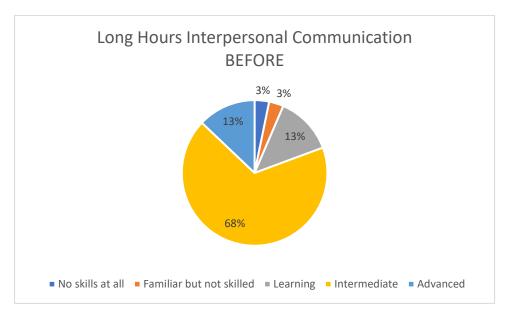


Figure 15 – Long Hours Interpersonal Communication BEFORE

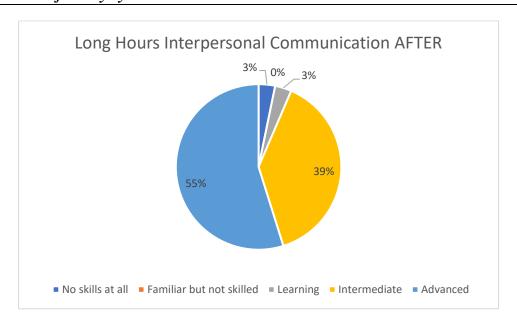


Figure 16 – Long Hours Interpersonal Communication AFTER

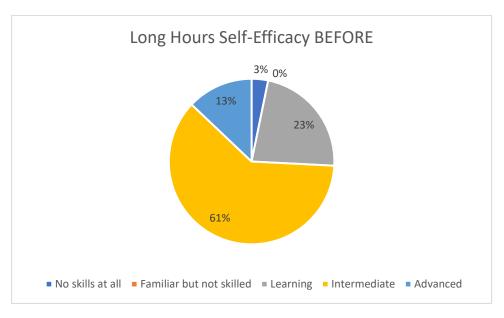


Figure 17 – Long Hours Self-Efficacy BEFORE

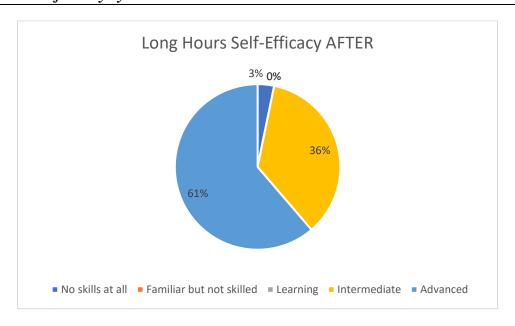


Figure 18 – Long Hours Self-Efficacy AFTER

Universally among all three skills the after data for the longer hours had the most people in the Advanced category and the highest percentage of the sample within either the Intermediate or Advanced categories. Longer hours also led to less of the sample size falling in the Learning category in the results especially in terms of self-efficacy where in the short hours four people still considered themselves learning after their internship and long hours had everyone rank themselves either intermediate or advanced. This all shows that for this sample length of time that a student spent on an internship in hours did have an impact on their overall learning metrics for their work time and that if students are looking for the largest gains in their information systems proficiency, interpersonal communication, and self-efficacy they should be looking for internships where they will be working full-time meaning 40 hours or more per week.

This same analysis that was conducted for length of time in hours was also conducted for the independent variable of length of time in weeks that a student spent on an internship. The same data set of student responses was also separated into files of short in weeks and long in weeks. Any internship that was 10 weeks or below was considered a short internship and any internship that was above 10 weeks was considered a long internship. From my research standard summer internship lengths are 8-10 weeks so I was fortunate in my responses to have received sufficient responses in the "long weeks" category that I was able to use the standard

number of weeks as a benchmark for analysis. Attached below are the graphs that represent the data found for the impact of length of time in weeks that a student spent on an internship.

Weeks Data

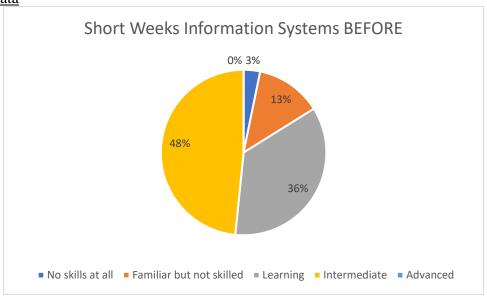


Figure 19 – Short Weeks Information Systems BEFORE

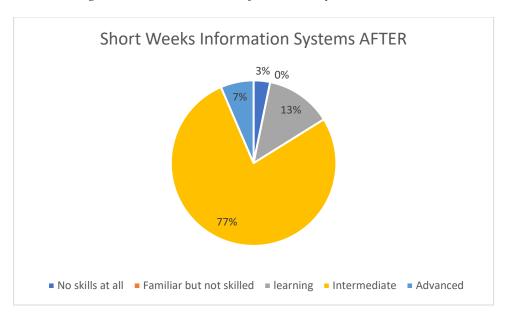


Figure 20 – Short Weeks Information Systems AFTER

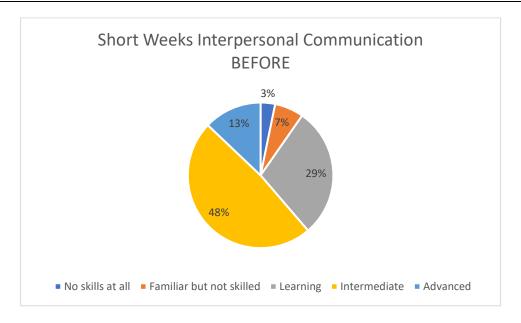


Figure 21 – Short Weeks Interpersonal Communication BEFORE

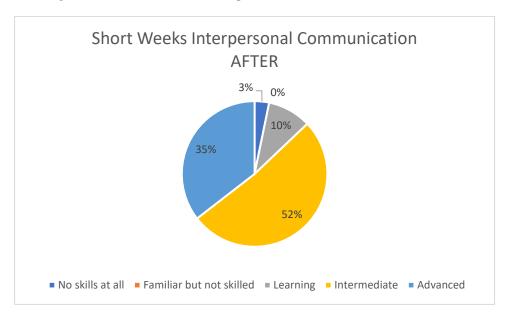


Figure 22 – Short Weeks Interpersonal Communication AFTER

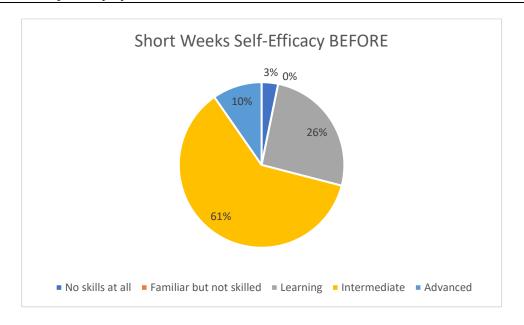


Figure 23 – Short Weeks Self-Efficacy BEFORE

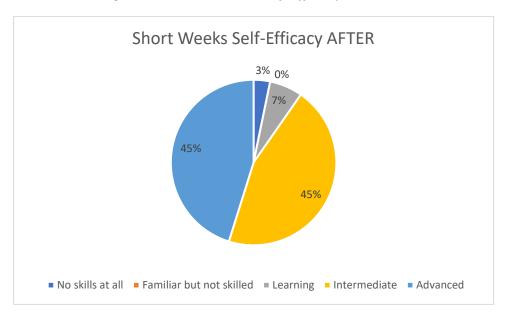


Figure 24 – Short Weeks Self-Efficacy AFTER

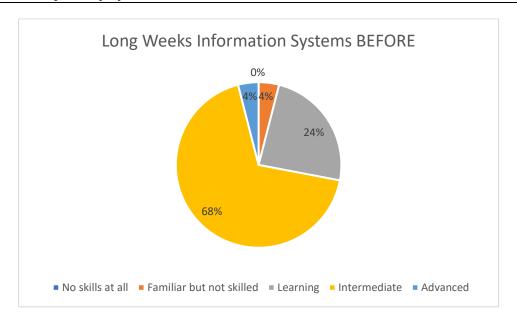


Figure 25 – Long Weeks Information Systems BEFORE

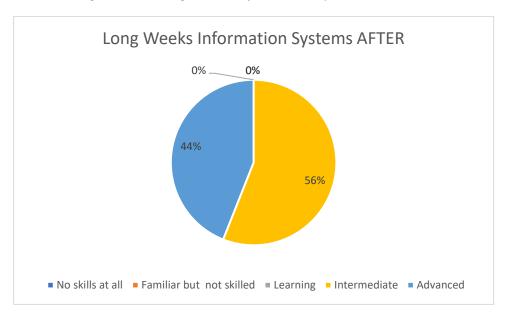


Figure 26 – Long Weeks Information Systems AFTER

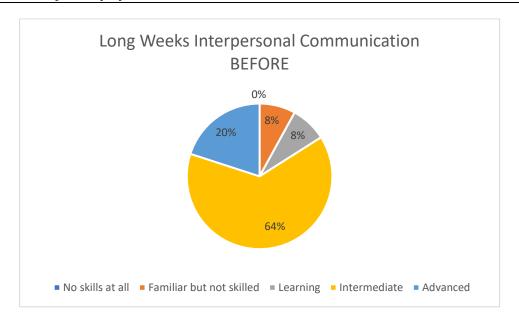


Figure 27 – Long Weeks Interpersonal Communication BEFORE

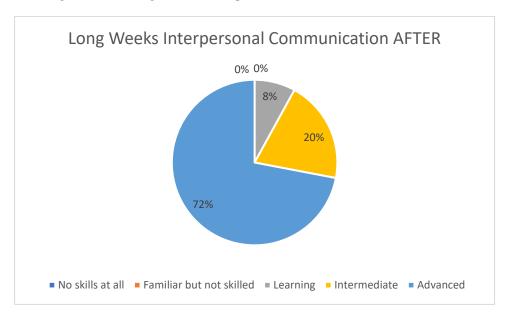


Figure 28 – Long Weeks Interpersonal Communication AFTER

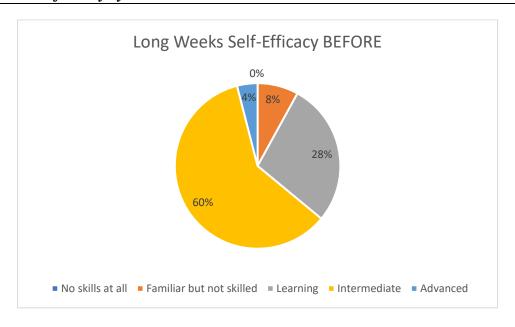


Figure 29 – Long Weeks Self-Efficacy BEFORE

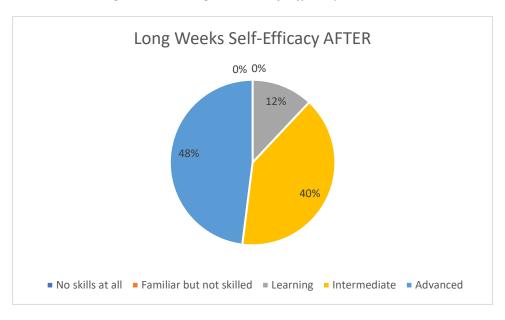


Figure 30 – Long Weeks Self-Efficacy AFTER

The length of time in weeks showed very similar results to the length of time in hours. The data for the students who completed longer internships in weeks showed more student growth among the two categories than did for the short weeks. For information systems proficiency in the after data in short weeks there were still four students who said they were learning but for long weeks none of them were in the learning category. For interpersonal communication, most responses AFTER in the short weeks was intermediate but for the long weeks the

majority was in the advanced range. The only piece of evidence in weeks that was not as compelling as in hour was that self-efficacy was not very different between long weeks and short weeks. The data here was quite similar where all categories bumped up (students showed growth) but in the end both had about half of the students in the intermediate category and about half in the advanced category. It appears from this data that length of time in weeks spent on an internship did not impact the student's confidence in self-efficacy like leadership, teamwork, and confidence.

Of the survey participants five of them said that they saw a change (all positively) in GPA after completing their internships. Of those five, three of them were in both the long in hours and long in week categories, and the other two responses one had just barely shy of long weeks and the other had just barely shy of long in hours. Both of those responses were considered "long" in one category and not the other but for the one that they were "short" they just barely were below the criteria I had set for my analysis. The following are the comments they wrote in response to asking if they felt their GPA change was related to their internships.

- "More experience to bring to my classes..."
- "I was more motivated to do better in my classes to secure a job..."
- "I believe I had more confidence and work ethic."
- "My confidence grew, and I was able to identify which areas I was skilled in, which enabled me to take classes that suited those skills."
- "Taught me how to be more diligent."

What struck me particularly out of these responses was that two of them directly referenced an increase in their confidence after their internships. In researching the literature related to this subject many of the tests that had been completed in the past used more standardized measures like test scores to determine student learning outcomes. This is inconsistent with recent literature, though, that also shows that test scores do not always reflect student learning. Seeing that two of these students responded that their confidence increased showed me that the design of this analysis was an adequate measure. The more confident and

empowered a student is the harder they will work as these students reflected on. I also believe the fact that they came from higher length of times of internships further emphasized the data found in the previous analysis that longer internships do tend to lead to higher confidence in learning outcomes.

The following questions asked students their opinions on working more hours and weeks. I asked them if they felt that would have learned more on their internship first in terms of weeks and second in terms of hours. The following charts represent the data collected from the overall responses to those questions.

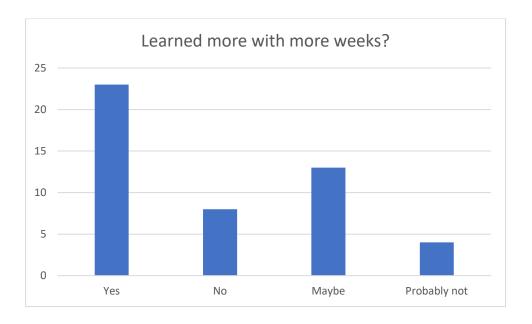


Figure 31 – Learned More with More Weeks Graph

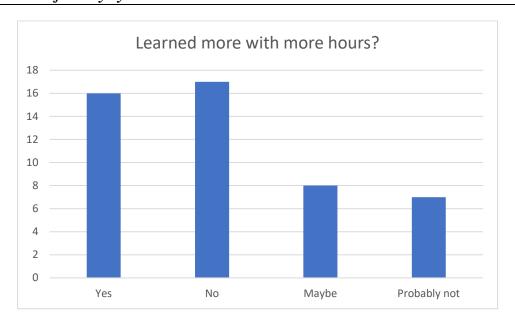


Figure 32 – Learned More with More Hours Graph

What the data showed from these questions is that people felt like they would have learned more with more weeks since in the responses to that question most responses to that question were within the "Yes" or "Maybe" categories. There were far less responses in terms of weeks in the "No" or "Probably not" categories. The data was different for the question asking about more hours in their internship. Responses nearly tied between "yes more hours would have helped" and "no I would not have learned more through more hours." This question also had exactly half of the respondents within the "No" and "Probably not" categories meaning that compared to weeks where there was a much bigger skew towards responses that were positive the results are split on hours. This data further supports what has been found previously that longer weeks does seem to lead to higher learning outcomes with more compelling evidence than longer hours do.

The final question of the survey meant to tie everything together asked the participants if they felt a longer internship would have been beneficial. They had just spent the last few minutes telling me about their opinions and reflections with weeks and hours separated but for the last question I asked them the same thing but without specifying. This left it to them if they felt longer in hours, weeks, both, or neither would have helped them gain more confidence after their internship experience. Attached below is the chart representing the chosen responses of the participants.

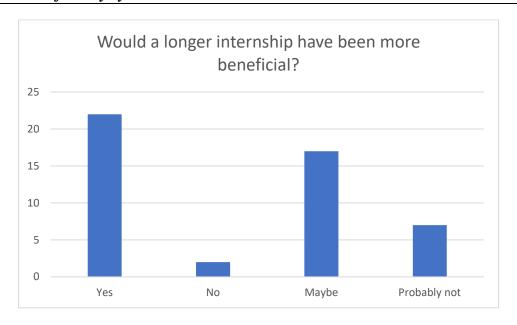


Figure 33 – Longer Internship Benefit Graph

Compared to the results from the previous two questions this answer had a more overwhelming response in the affirmative that either "Yes" it would have helped or "Maybe" it would have were what most participants chose. The number of participants who chose "No" drastically decreased from when I asked them to specify between weeks and hours. Ultimately after students had spent time thinking about what they learned on their internship and reflecting on their experiences they answered at the end that doing a longer internship would have been beneficial for them.

LIMITATIONS

One limitation of this study is that the participants who answered the survey about their internships were answering for both length of weeks and length of time in hours. In my assessment of the data, I assumed that the participants would not have the cognizant ability to determine whether their answers were based because of the hours or the weeks. This required me to assume that the data could be used to explain either weeks or hours and that the results were still applicable. Essentially, the same data point was analyzed under two different independent variables and for the sake of the study I had to assume that this would not have impacted the data. I do not believe that this significantly impacted the results or the data, but it was an assumption being made in the design structure of this study.

There was only one question from my survey that I was not able to pull significant data out of and that was the question that asked about how many and what involvements students had before and after their internship. My intention was that it would be data like GPA and the confidence rating to help draw an analysis I would be able to show that either more or less involvements had an impact. What I found was that most participants did not even try to answer the question and for those that did there was not much significance to their answers. Many of the students had the same involvements as before, some had slightly more, and some had slightly less. Also, many of them only answered one of the questions or did not fill out the form as I was hoping they would. There just was not enough data and not enough responses here that I was able to pull anything useful from them. It seemed that many participants just did not want to put in the effort to answer this question, so it was not helpful in data analysis.

One significant hinderance to this study that could not have been evaded was the impact of Covid-19. I have been pursuing this project since before the Covid-19 pandemic altered our entire world and especially the way our corporate world interacts. Many students' internships were impacted by Covid-19, but I had to continue and try to make this study work despite that hinderance. I asked graduates of Bryant University to participate in my study who, for many of them, their internship was not impacted by Covid-19. Of my survey participants almost a third of them had not ever completed an internship, and for the people that had nearly half had their internship impacted some way by Covid-19. I believe that because of the pandemic and internships being shortened for many I was able to collect more diverse data in terms of time than I ever would have in other years. This was an unforeseeable event that had a large impact on my study but nonetheless students proved that even with shorter or impacted internships they were still able to create learning outcomes. I would be interested to revisit this study years down the road from now and see how the data differs in a year where there is not a pandemic altering people's internship experiences.

One of the limitations to the study that was not discovered until significant work had been done towards its' completion was the incorrect use of the term "self-efficacy" in the psychological sense. I have never taken a psychology course in my time at Bryant and used the term self-efficacy in the way I understood it from social conversation not necessarily from a literature-based standpoint. While my other overarching terms information systems

proficiency and interpersonal communication came straight from academic articles, I input the term self-efficacy to describe the skills I was looking to reference. My research had not taken me into the realm of psychological journals where I would have been able to better understand that in psychology there is a distinct difference between self-efficacy and self-confidence in the way I used them. Self-efficacy more closely relates to the ability to complete a certain task rather than the more global trait like self-confidence (Ackerman). In this study the two terms were used interchangeably when, to be in accordance with related psychological literature, self-confidence is more likely what should have been used over self-efficacy to describe the skills I was hoping to capture in that variable.

The final factor that I believe had an impact on this study and limits the results is that every internship and person who took my survey was very different. I know that hours spent at work are spent differently for every person in their role so even if someone was working a lot of hours, they may not necessarily have been substantive. Same goes for someone who may have been working extremely hard but only for a few hours a week. As well in week, someone could have spent 2 hours in training and someone else could have spent two weeks in training so the time to adjust and get your bearings on the job enough to get comfortable varies greatly. I would be interested to see a study done similarly in design to mine but all for participants of the same internship or having less variability among the types of participants internships to see if it would lead to differing results.

CONCLUSION

Overall, the data showed that length of time spent on an internship does impact the student learning outcomes and their confidence in those skills. Length of time in weeks had a larger impact than length of time in hours did but still both showed positive trends for increase in confidence levels in longer internships than in shorter ones. Students who reported increases in their GPA attributable to their internships came from longer internship experiences and ultimately many students said "yes" or "maybe" they believe a longer internship would help them learn more from their experience.

Students can apply the information from this study by using the findings to help them apply to and accept different internship opportunities. Depending on what they are looking to gain the

most from their internship and what kinds of growth they would like to have in these skills, they can evaluate based on hours and weeks where they would be most likely to see that positive change. This study can also be used by students to determine what is better for them in terms of weeks and hours. If they are looking to see more significant improvements, they would want to search for an internship that is long in weeks. My hope is that this study can be used by students to help evaluate the endless possibilities for options and help to ease any stress they have about selecting an internship. This study proved that there is no bad work experience, all participants gained something from their internship. This study helps to decide which to pick, but ultimately all work experience is helpful in working towards a career.

APPENDICES

Appendix A – IRB Approval Form

VII. Proposal to IRB for Research Involving Human Subjects

Name(s) of Investigators	Hayley Bobok
Title of Research Project	Internship Impact on Student Success Metrics
Anticipated Start and End Da	ates of Experiments 9/14/20-9/28/20
give consent, must not place	c Level , the study must not involve children or adults unable to subjects at more than minimal risk, and must fit one of the all that apply). See Section V for description of each category.
X Educational testing	
X Survey/interview proce	edures
Observation of behavior	without intervention
Use of archival data	
Evaluation of Federal res	earch and programs
Consumer acceptance stu	idies

Risk Assessment

Indicate with a check if any of the following risks are involved:

Deception as part of the experimental procedure? If yes, the proposal must include a description of the deception and the method of "debriefing" after
the experiment.
Any probing of information which a subject might consider to be personal or sensitive?
The presentation to the subject of any materials they might find to be offensive, threatening, or degrading?
Possible compromise of privacy of participant or family, including use of personal information and records?
The administration of physical stimuli other than auditory or visual stimuli associated with normal activities?
Deprivation of physiological requirements such as nutrition or sleep?
Manipulation of psychological and/or social variables such as sensory deprivation, social isolation, psychological stress?
Physical exertion beyond a level that is moderate for the participant?
Exposure to drugs, chemicals, or hazardous agents?

Any other situations likely to pose risk? Please identify below:		
<u>N/A</u>		
Explain the need for any risks for the participants, that is, how they are required for successful completion of the study: N/A		
Project Description Clearly state the purpose of the study and the area of knowledge it contributes to (or attach document): The purpose is to see if certain elements of internships like time in weeks or hours has an		
impact on student's confidence in their professional abilities.		
Briefly explain the nature of the experimental procedures and the information to be obtained (or attach document). If students are performing the research, indicate that and describe their activities. The research will consist of a survey sent out to students which they will answer with		
knowing consent. Information about their prior work experiences and their opinions on what		
they learned while doing an internship will be recorded.		
Explain measures taken to assure anonymity and confidentiality of the information:		
The survey will be conducted through Qualtrics and students will not have to enter their		
names or any other information. Additionally, individual survey results will not be publicly		
shared, just the overall group data.		

Participant Description Describe the approximate number and range of ages of participants in this study:
The goal is 200 responses, all participants must be over 18 and the general age range will be
18-22
Describe the criteria for selecting participants: The survey will be sent to Bryant University students who have completed an internship in the
past that are willing to share information about their experience.
Describe any inducements for subjects to participate (check all that apply):
Extra credit in a course Money. If yes, give approximate value: Raffle or other type of contest. Other (please specify):
Informed Consent How and when is informed consent obtained from the participants? Indicate any forms used. Before beginning the survey, students will check off in a box that they consent to the use of the information given to be used for this study and confirm that they are over 18.
If deception is part of the procedure, explain the deception and describe when and how debriefing is conducted. N/A
Any other concerns or further comments? N/A

Append	lix B – Survey Questions
	articipant,
	survey is intended to be used in a research study for my Bryant University Honors Thesis. I will be you about your experiences with internships in college and how you feel you have grown from
effectiv	sponses will greatly assist me in my qualitative and quantitative data analysis on internships' eness. You will not be entitled to benefit or compensation upon its' completion apart from your nce in my research.
This sur	rvey will be anonymous and none your information apart from the answers you provide will be ed.
apply to	at you use reasonable judgement in how to answer these questions and if this survey does not o you please do not continue taking it. If you feel you have any more details that I would require in complete my study, you may email me at hbobok@bryant.edu to follow up.
selectin findings	oluntary participation in this survey is greatly appreciated if you take the time to complete it. By ng "I Agree" below you are agreeing that you will allow me to utilize the data I collect and share my s among my research. If you, for any reason, do not consent to my usage of this data, please do nplete the survey, and exit at this time.
	email me at hbobok@bryant.edu if you have any questions and thank you for taking the time to ete my survey.
O I Agi	
▼ Dem	nographic Questions
	What is your grade level?
GRADE	○ Freshman
Ø.	○ Sophomore
	O Junior
	○ Senior
	Other
	What is your age?
AGE	
*	
iQ	
*	

	What is your gender?
}	○ Male
	○ Female
	O Non-binary / third gender
	O Prefer not to say
	What is your race?
	O White
	Black or African American
	American Indian or Alaska Native
	○ Asian
	O Native Hawaiian or Pacific Islander
	Other
	Hispanic or Latino Not Hispanic or Latino
	What state or country are you from?
	Have you completed an internship while in college?
	○ Yes
	○ No
	○ Maybe

	For the rest of the questions please pick your most significant internship experience if you have more than one
7	What company did you intern for?
	What was the name of your position?
5	How long was your internship in weeks?
S	Approximately how many hours did you work per week?

Please rate	your confider	ce in these s	skills BEFORE	your internship
-------------	---------------	---------------	---------------	-----------------

	F	amiliar but not			
	No skills at all	skilled	Learning	Intermediate	Advanced
nformation Systems roficiency (for example: xcel, Word, PowerPoint)	0	0	0	0	0
nterpersonal ommunication (for xample: Email orrespondence, resentations, etc.)	0	0	0	0	0
elf-efficacy (for example: eadership, teamwork, onfidence)	0	0	0	0	0
Please rate your confidenc	e in these skills AF	TER your inte	rnship		
		Familiar but not			
	No skills at all	skilled	Learning	Intermediate	Advanced
nformation Systems Proficiency (for example: Excel, Word, PowerPoint)	0	0	0	0	0
nterpersonal Communication (for example: Email correspondence, presentations, etc.)	0	0	0	0	0
Self-efficacy (for example: Leadership, teamwork, confidence)	0	0	0	0	0
INV B4					iQ
Please list any invol	vements you had	d BEFORE y	our internshi	p	
#B4				i	Q *
How many (please	enter the number	r) did you li	st in the previ	ous question?	
				A.	

	Please list any involvements you had AFTER your internship					
	How many (please enter the number) did you list in the previous question?					
	Did you notice an increase in your GPA after your internship?					
	○ Yes					
	○ No					
	○ Unchanged					
	Do you believe that the change in your GPA was related to your internship experience? *If yes please elaborate					
	O Yes					
	○ No					
	○ N/A					

	Wa	s your internship affected by COVID-19
)	0	Yes
	0	No
	Do	you feel you would have learned more if you worked your internship for more weeks?
5	\circ	Yes
	\circ	Maybe
	\circ	No
	0	Probably not
	Do	you feel you would have learned more if you worked more hours in your internship?
S	0	Yes
	\circ	Maybe
	0	No
	0	Probably not
	Have	you ever considered participating in a full semester long internship?
	O Ye	es s
	0 N	0
	Woul	d you have wanted to complete a longer internship, if possible?
	O Y6	es es
	O M	aybe
	0 N	0
	O PI	robably not
	Were	you aware before this survey that Bryant students could participate in a semester long internship?
	O Ye	es s
	O M	aybe
	(N	

After taking this survey do you feel that a longer internship would have helped you gain more from your experience?
○ Yes
O Maybe
○ No
O Probably not

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