Coronavirus Stories-Capturing the Voices of College Students

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Abstract

The goal of our project was to give college students a platform for their voice to be heard regarding their experiences during the COVID-19 pandemic. We collected video responses from college students across the US, telling us of their experiences through the questions we developed. These responses were analyzed for commonalities as well as used within a final documentary telling a chronological story of the different experiences.

Executive Summary

The team was forced to choose a different topic after their original project was cancelled due to the current pandemic. Originally the team had prepared to spend seven weeks in Copenhagen, Denmark, analyzing Climate Action Plans and developing video testimonials that embodied the best attributes of these plans. Due to the travel bans implemented with the spread of COVID-19, the team was forced to stay in the US, and shift to a different topic, which became this "Coronavirus Stories" project.

The team chose a new project about how university and college students were affected during the COVID-19 pandemic. **The goal of this project was to collect personal stories from students who were impacted by the COVID-19 outbreak in order to ensure their voices are heard and their stories are known.** With so many students throughout the country either angry with their colleges' administration for how they handled everything or feeling as if they were voiceless throughout this entire process, this project offered students that opportunity. The team collected video stories of students across the United States who responded to a series of questions regarding the decisions their universities had made and the students' own experiences during the pandemic and thoughts on the future. The video responses were evaluated to find commonalities along with distinctive stories from the students. The videos were then compiled into a documentary to be shared with students and universities for better decision making in the future.

To facilitate collecting these video responses from students, the team created a website that informed participants with links to resources and guidelines from the Centers for Disease Control and Prevention, provided background information about the team and the instructions for the participants to record their video. The website also included the list of questions to be answered in the video. These common questions allowed the team to find the commonalities in these stories.

Participants were selected by the team members using the "snowball method" of networking. Team members sent out the template email to those that displayed interest in contributing to the project which contained a link to the team's website where the entire project was described, and instructions were given on how to both complete and submit their videos. Four questions were developed by the team that elicited the desired responses. These questions were able to guide the responses in the correct way in order to have the participants give responses that would be able to be analyzed and formulated into a documentary.

Twenty-four video stories were submitted to the project. Before the participants could submit their video, they answered a short demographic questionnaire. The name of the universities represented, and the class year of the students are shown in Figure 1, below. The demographic questionnaire also asked about involvement in any study abroad program and their current residence as shown in Figure 13. Among these participants, 9 of the 24 students had been in a study-abroad program and 7 students were not currently residing in their hometown but in a different state or country.
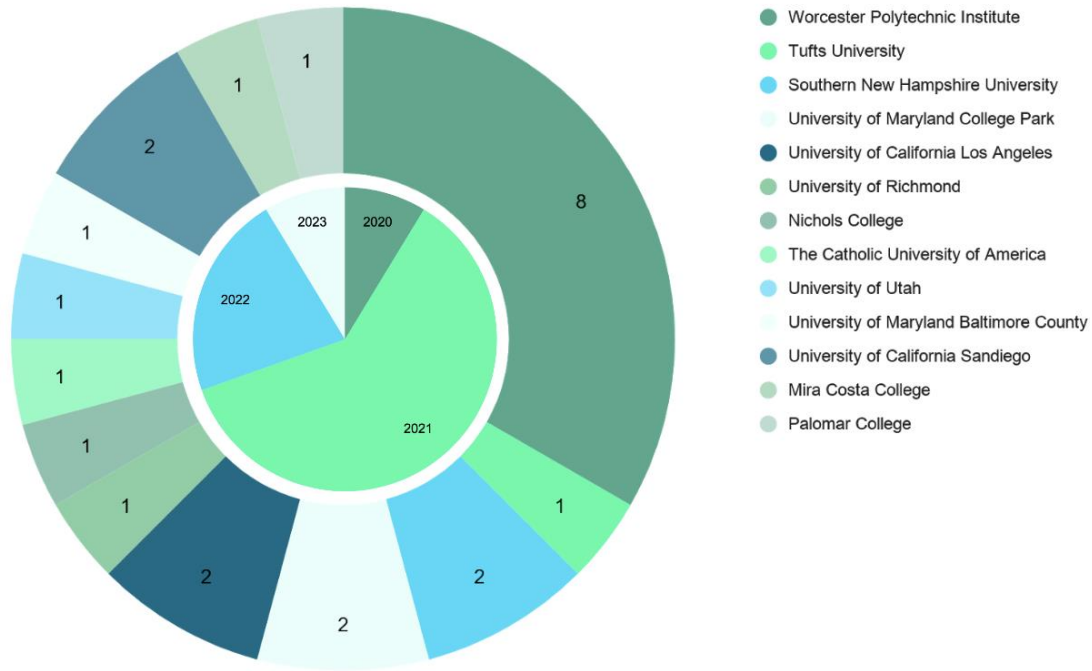
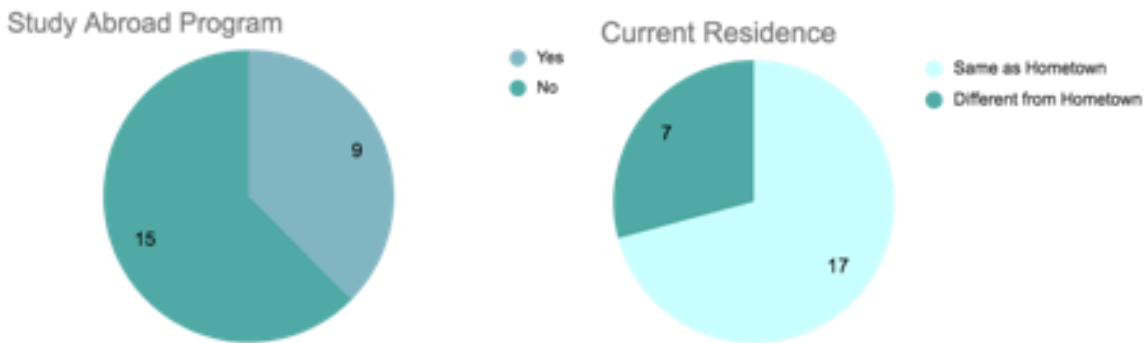*Figure 1: Graduation year of students and Universities they attend*

Figure 2: Current Residence of Students and Study Abroad Program

Once the videos were submitted, the team analyzed the videos in a four-step process summarized below in Figure 2. In step one, a team member watched the entire video, and rewatched the video and took notes in a Google form. This form exported these notes directly to a Google spreadsheet. With the data in the spreadsheet, the team member began step three, which was to classify the responses for each student using a set of predefined codes. Once all responses had been coded, the team generated charts to display commonalities between student responses.
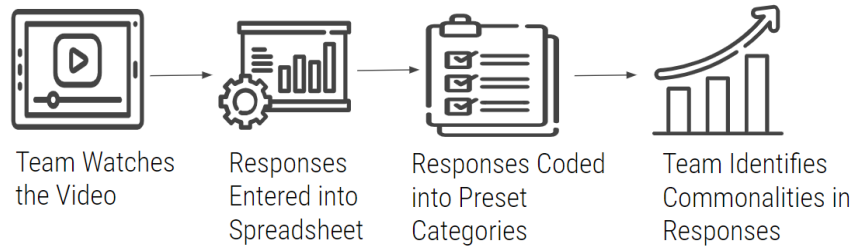
Figure 3: Four Step Analyzation process

This process provided the data about commonalities for the team's analysis and conclusions about the video stories. The first conclusion was that the **initial reaction of students (within the first 2-3 days of school cancelations) centered around three main emotions: understanding, confusion, and anger** as displayed in Figure 21. For students whose plans to play an NCAA sport, study abroad, or work on an internship were suddenly cancelled, their responses were much less understanding: 12 of the 13 students whose responses were angry/upset came from this group, as displayed in Figure 22. This pattern of reactions likely came from the emotional investment that the group put into preparing for their planned activity-- the loss of a sports season, opportunities to study abroad, or internships--may lead to a greater feeling of loss than for the average student. Additionally, those activities are ones that require that participants invest large amounts of time in preparation. **After about a month, however, nearly all students stated that they understood why their universities had made the decisions** to cancel travel and move to remote learning after seeing the progression of COVID-19 throughout the world.
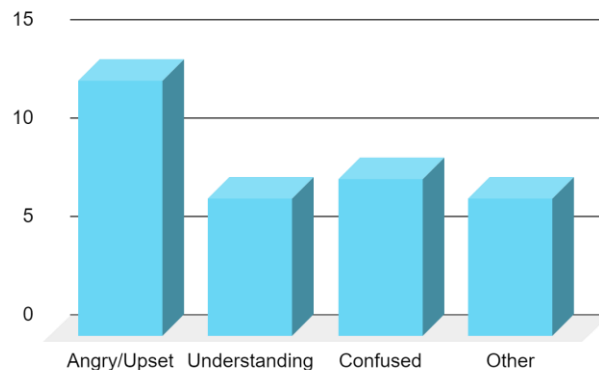

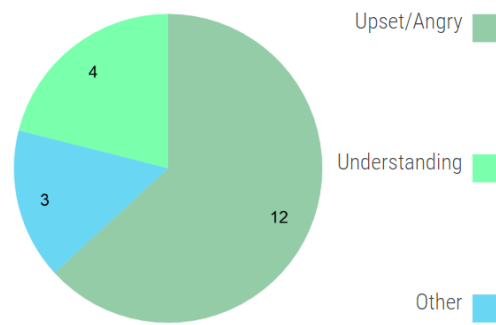*Figure 4: Initial emotions of all student responses*

Figure 5: Initial emotions of students who play NCAA sports, were going to study abroad, or had internships cancelled

With the exception of the pattern that those who had taken from them, such as sports or study abroad, had a more negative initial outlook on the pandemic, **what stands out most in our analysis is the distinct lack of correlation between most student demographic characteristics and the way they perceived the pandemic**. Regardless of where the students went to school, whether it be east coast or west coast, private university, public university, or community college, students had a very similar distribution of emotions, opinions, and future outlooks on the results of the pandemic and their school's handling of the events. These observations were consistent without regard to where and with whom they currently reside.

Additionally, the academic major and year of graduation seem to play minor roles in the outlook of students. This was one of the more surprising findings as the team expected that the closer a student was to graduation, the more they would feel they were missing. The fact that seniors reacted in a manner similar to those with several years left of college, indicates that most students accept that their school made the right decisions for the students given the severity of the pandemic. This lack of correlation with class year may suggest that the perception of students on the events of this pandemic depended much more on what each individual student had going on in their personal life than on the school they attended or how far they had progressed through their degrees.

Another commonality identified was in the way students' lives had changed. Most students stated that the biggest change in their lives was either **the lack of interaction with friends or the need to better manage their time** as shown in Figure 23. These changes are likely due to the environment of universities, which encourage social behavior, as well as the lack of structure that school typically provides students. The third way people's lives had changed is that a few students picked up a new hobby.
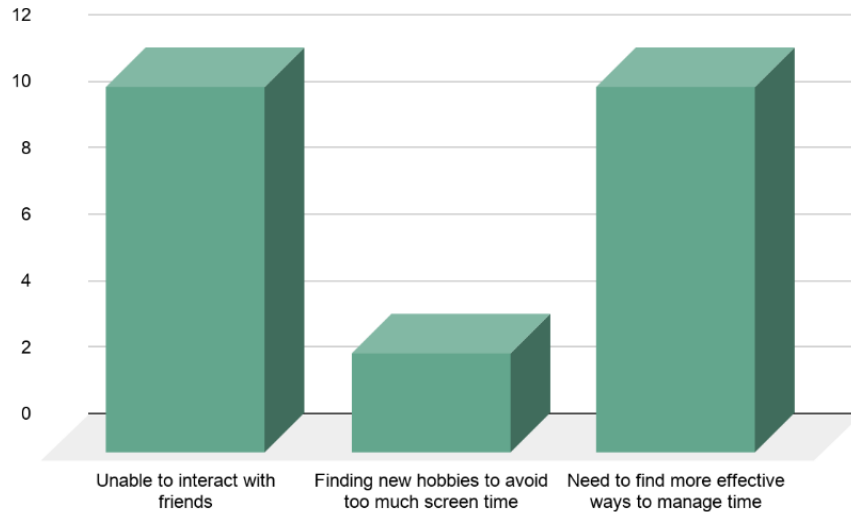
Figure 6: Ways students' lives changed as a result of the pandemic

The final commonalities identified were that **the majority of students felt the world would change,** and most of those responses thought **people would become increasingly aware of the dangers posed by large gatherings**, as demonstrated by Figure 24. This aligns with most students' individual views on how they would change, with most saying they would be aware of the dangers to their health posed by others around them.
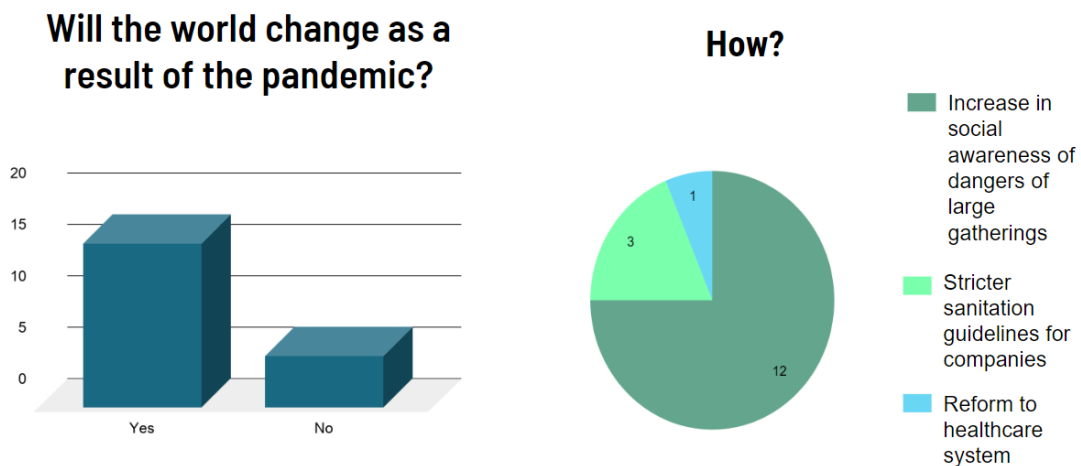

Figure 7: Will the world change due to the pandemic and if so how?

The team composed a documentary using the video responses consisting of three main sections: the introduction, the main body, and the conclusion. At the start of the documentary, the development of the entire pandemic is described. This section was meant to be informative, with a somber tone, and provide a context for the rest of the documentary. **Within the main body of the documentary, the stories of the participants are shown, and their voices are heard. The different emotions, advice, and overall messages of the students are conveyed.** Finally, the documentary wraps up by shifting to a more optimistic tone, as different

students offer their advice to those in the future who may find themselves in similar situations. Then, since this theme was raised repeatedly in the student's stories, the documentary ends with a quick section of gratitude to essential workers.

As a result of the students' collection and analysis of these student videos and the creation of our own documentary, **the team has three recommendations for universities** to improve their response should a situation like this arise again. First, universities should ensure that **all communication is done in a timely manner** to give students adequate time to prepare. Second, universities should **ensure communication with students displays empathy** so that students understand the decision was made after carefully considering all options and with the best interests of students in mind. Third, universities should **include students in the decision-making process** so that they feel their opinion is heard and understand why a decision was made.

Team Website: https://sites.google.com/view/coronavirusstories/home
Team Documentary: https://www.youtube.com/watch?v=C-rpDtKQ9sI

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2.2 – Interview Questions and Web Page Creation	Gelila Hailemariam, Christopher Ferrari	Lucas Falsarella Guerreiro
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Acknowledgements

1 Introduction

The Coronavirus disease (COVID-19) pandemic began at the end of 2019 in Wuhan, China. On December 31, 2019, officials in Wuhan reported to the World Health Organization (WHO) dozens of cases of pneumonia stemming from an unknown cause (World Health Organization, 2020c). On January 7, 2020, the WHO was able to identify the novel coronavirus 2019, now known as SARS-CoV-2, as the cause of a disease that was later renamed COVID-19 (World Health Organization, 2020b). Four days later, on January 11, the first death directly tied to the disease was reported (Muccari & Chow, 2020). The disease quickly spread to many other countries resulting in travel bans being implemented throughout the world (Muccari & Chow, 2020).

The rapid spread of the disease led to the WHO declaring the COVID-19 outbreak to be a worldwide pandemic on March 11 (World Health Organization, 2020a). Much of the world subsequently went into lockdown as an effort to "flatten the curve," or reduce the spread of the disease. Social distancing was put in place to reduce the rate at which the virus was transmitted and to prevent hospitals from being overwhelmed with patients (Muccari & Chow, 2020). As of May 09, 2020, there are 3,965,863 confirmed cases throughout the world of which 275,397 cases have resulted in the death of the infected individual (Johns Hopkins University & Medicine, 2020). While the United States was not an original epicenter for the outbreak it has quickly become the leading country of confirmed cases worldwide at 1,284,708 as of May 09, 2020 (Johns Hopkins University & Medicine, 2020). All 50 states have confirmed cases and, with more than 321,000 cases confirmed, New York has the most cases in the country with almost three times more than the next most affected state (Cases in U.S., 2020). The majority of the states have community transmission of the virus over a widespread area, which means it is difficult to avoid places with infected people.

On March 2, the U.S. Centers for Disease Control and Prevention (CDC) issued guidelines for Institutions of Higher Education with students participating in international travel or study abroad programs to consider canceling all international travel. Massachusetts Governor Baker urged all universities to suspend their international travel programs on March 4, the same day that WPI canceled its spring global programs. Our group was originally scheduled to go to Copenhagen, Denmark to examine Climate Action Plans, but because of this pandemic we were unable to travel and needed to adjust our project. We decided to collect college students' stories about their different experiences during this trying time.

Nearly all other colleges and universities also closed their campuses and switched to virtual learning in response to the rapid spread of the novel coronavirus. Many students are impacted in ways that are yet to be identified. The following are a few ways students are currently affected by the sudden changes: Graduate and undergraduate research have been interrupted, which can result in more financial cost for the students and delays in graduation; financial problems rise for students that need their on-campus jobs to pay for tuition

or housing; student athletes don't get to play or get scouted for the pros. The National Collegiate Athletic Association has stopped all its spring events including the famous March Madness national basketball championship tournaments, and the longest uninterrupted collegiate track competition, the Penn Relay track and field competition (Kolodner, Marcus, Preston, & Smith-Barrow, 2020). Thousands of participants were affected, and many seniors lost their last chance to participate.

With colleges shutting down throughout the country and switching to online schooling, the "college experience" for these students has become very different. Colleges have done their best to try and make the lives of students as easy as possible whether it be through online lectures, pass/fail grading options, or even just reimbursing students for different campus expenses. Students who had planned on studying abroad during the spring months, like our group had, were also stripped of this opportunity.

While all the changes by colleges across the country show an effort to help students, some of the adjustments may work for some students, but put others at a disadvantage in regard to completing courses. Throughout this entire process, a plethora of students still feel as if their voices have not been heard throughout this whole situation. Things happened very fast due to the rapid spread of COVID-19, forcing schools to act fast throughout the country. Many students feel they have had no chance to offer any input regarding the change's schools have made.

The goal of this project is to collect personal stories from students who were impacted by the COVID-19 outbreak in order to ensure their voices are heard and their stories are known. By now, most, if not all, universities have shut down their campuses and moved to online classes. However, each university handled the outbreak and the transition to online classes slightly differently. Students will have a chance to talk about what their schools did differently and share their opinions. This project will collect video testimonials from students to investigate the personal ramifications for the students beyond the digital classroom.

The project was completed through these objectives:

1. To collect and make available the video stories of students across the US regarding their experience with COVID-19.
2. To evaluate the stories gathered to find different commonalities amongst colleges' responses to this pandemic and student perceptions of these commonalities.
3. To create a documentary compiling the best stories from those who were filmed that tells a chronological story.

Our project focused on student experiences of the COVID-19 Pandemic within the United States. The team hoped that students would share some of the ways the outbreak affected their personal lives and how they are handling it. The questions provided by the team to students are tailored to avoid surface-level information, but instead prompt more open-ended, individual responses. After reviewing all the video submissions, the team created a documentary-style compilation of responses and analyzed the data.

The documentary was a way of summarizing and publicizing the project. It compiled some of the responses into an edited video. The goal of presenting a portion of the responses was to create a video that showcases the project and properly represents all the responses received. The video was divided into an introduction, main body, and conclusion. The introduction displayed a timeline of the outbreak in an informative way. Then, the main body displayed various clips from a number of participants, focusing on their current situation. Finally, the conclusion specifically showcases the advice that participants had. While all the responses are available to the public, the documentary could not include all the stories in order to prevent it from being too long. Additionally, the team analyzed the data from the responses. This included objective data, such as where the participants study, where they live, and if they play sports. It also included more subjective data. For example, one of the open-ended questions asked about how satisfied participants were with the way their school handled the situation. The project delivered a video that summarizes the responses collected by the team and a report on the information gathered by the group.

2 Collecting Stories

The team gathered stories about how different peoples' lives were affected at the hands of COVID-19 by reaching out to college students across the US. The team aimed to collect the stories of students throughout the country regarding the different hardships they faced because of the pandemic, and to obtain advice they may have for those who face similar situations These stories were submitted through the developed website that is linked within the template email that the team sent to all participants.

2.1 Participant Selection

The team reached out to students from various universities and colleges willing to participate in the video documentaries. In order to produce a video documentary, the team focused on a wide range of students from different universities and geographic locations, to provide a variety of stories from the impacts of the COVID-19 pandemic. By aiming to collect stories from a broad range of backgrounds, it allows the group to see the pandemic from numerous different perspectives. The team reached out to people of different backgrounds, different majors, different college commitments, and different hometown locations. Those who agreed to participate were also told to reach out to anyone they know who might be interested in having their voice heard. What this process does is it allows the team to reach a larger audience because they're expanding their network out to people who they personally may not know. Using the stories from students that are willing to share their videos publicly the team compiled a documentary video that tells a story of how a diverse pool of college students throughout the US experienced this trying time.

2.2 Interview Questions and Web Page Creation

Insofar as one of the central pieces of the project was to interview students, the development of interview questions was essential, as these questions help to tell a story of what people experienced during the pandemic. The team created four interview questions that best highlighted the main areas they were exploring in their research. The questions were formulated to be open-ended in order for them to be applicable to any college student regardless of their situation, and these can be found in Appendix A. The first question was developed so the students can tell their story how they see fit. The following questions lay the foundation for data gathering purposes for the rest of the project, as they will be the driving force behind the tales that tell the overall story of this pandemic and the different analysis performed based on the stories.

Interviews are one of the most common methods for data collection. Conducting an in-person interview is not possible due to the social distancing in effect, therefore the team sent each participant the interview questions and had each participant record their responses as videos to be uploaded through a website the team created. The website contains information about the

project and a link to the Google form used to submit the video. The website offers a welcoming, organized, and public-facing front to the project. On the Home page, we have a brief introduction to our project as well as links to CDC general guidelines and guidelines for higher education.

Figure 8: Screenshot of the Home page of the website

The About page includes information about the project including our target audience and our aim to collect personal stories as a result of COVID-19.
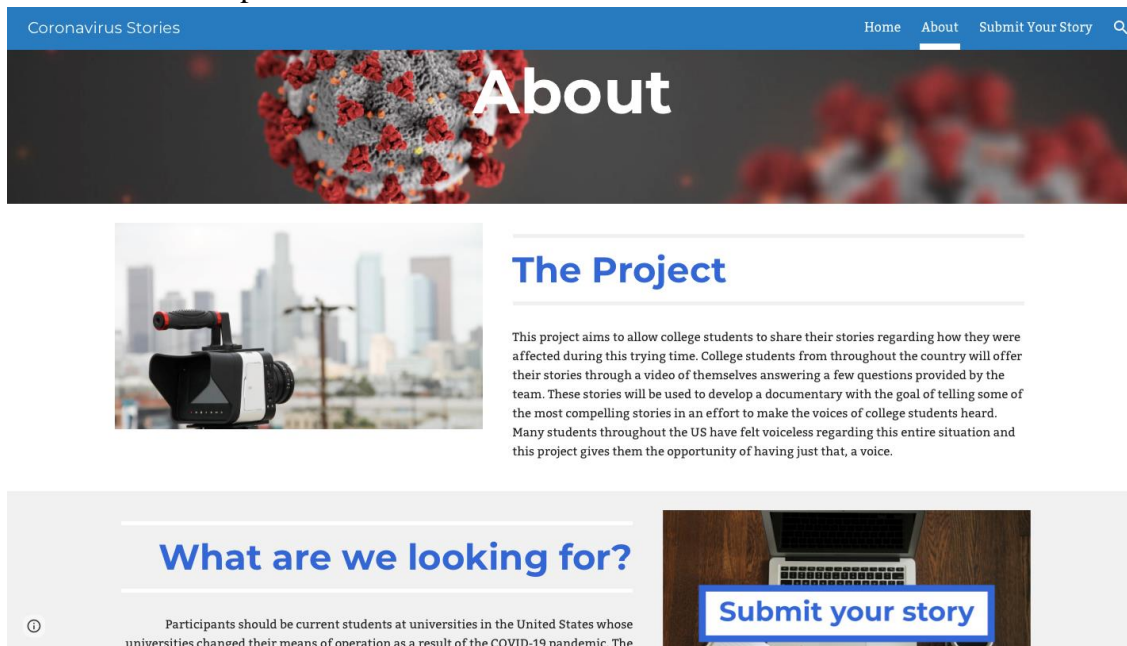
Figure 9: Screenshot of the About page of the website

On the bottom we added a short background introducing the team and each team member to create a personal connection with our target audience.
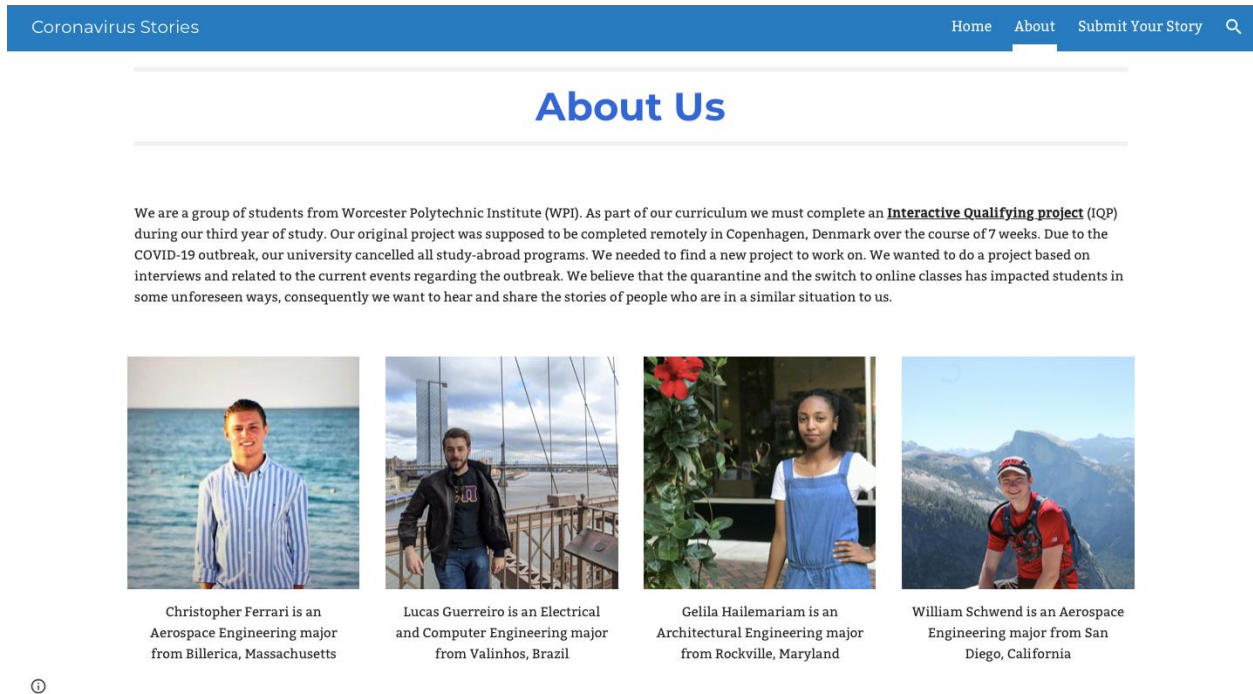
Figure 10: Screenshot of the About page of the website

The Submit Your Story page includes the list of Questions found in Appendix A. It also includes the link to Google forms on the bottom of the page. The placement of the link causes the participant to look through the recommendations available before submission.
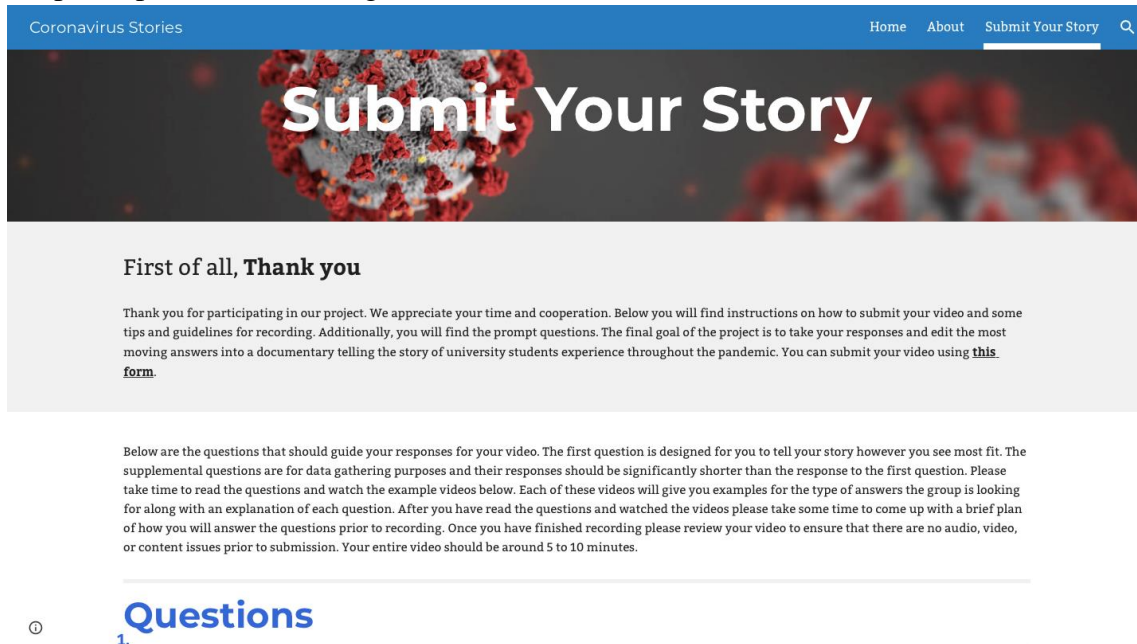
Figure 11: Screenshot of the Submit Your Story page of the website

To assist in receiving the highest-quality video submissions, the team included brief instructions for the participants when recording a video. Advice offered included using the best quality recording device available to them, choosing a quiet, well-lit place, and planning their responses ahead of time.
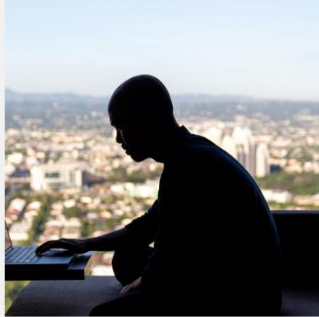
Figure 12: Screenshot of the Submit Your Story page of the website

The website also includes example videos of each team member recording our responses to the questions. By doing so, it allows us to guide the videos in the intended direction of what the team is looking for.
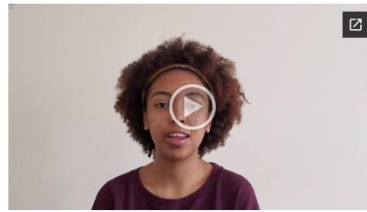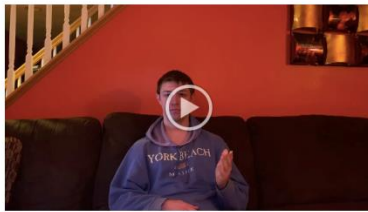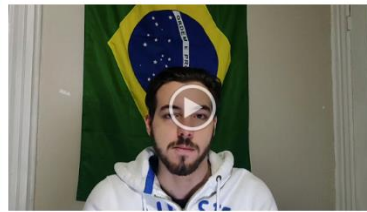
Figure 13: Screenshot of the Submit Your Story page of the website

Each participant uploaded their interview videos through Google forms, shown below, linked through the website.

Coronavirus Stories Video Submission Form

The name and photo associated with your Google account will be recorded when you upload files and submit this form. Not **17437638pomi@gmail.com**? Switch account

* Required

First Name *

Your answer

Last Name *

Your answer

Name of your University *

Your answer

Your email from your University

Your answer

Figure 14: Screenshot of the google forms first page

Your email from your University

Your answer

Where are you residing during quarantine? (Enter City and State) *

Your answer

What is your hometown? (Enter City and State)

Your answer

Do you play any sports? If yes list them bellow *

Your answer

If you play sports, what division are you in?

○ Division 1

○ Division 2

○ Division 3

○ Club Sports

Figure 15: Screenshot of the google forms first page

Figure 16: Screenshot of the google forms first page

The second page of the form included a video attachment section and a Media Release and Waiver that allows the team to use the videos submitted for this project and the production of the documentary.

Part 2: File Upload

Consent form *

I do hereby give permission to be recorded, photographed, and/or videotaped by the Coronavirus Stories IQP group and/or their representatives in connection with the production of videos of Coronavirus student stories in association with WPI.I understand and agree that the text, photographs, and/or videotapes thereof containing my name, likeness, and voice, including transcripts thereof, may be used in the production of video materials, and for other purposes that Coronavirus Stories IQP group deem(s) appropriate, in relation to the production of a documentary about student experiences of the Coronavirus, and that such materials may be distributed to the public and displayed publicly one or more times and in different formats, including but not limited to, websites, cablecasting, broadcasting and other forms of transmission to the public. I also understand that this permission to use text, photographs, videotapes, and names in such material is limited to the production of videos for the documentary and the supplementary analysis of the content of the videos and that I will not receive any compensation for granting this permission.I understand that the Coronavirus Stories IQP group have no obligation to use my name, likeness, or voice in the materials they produce in relation to the videos produced but if the Coronavirus Stories IQP group so decide(s) to use them, I acknowledge that the Coronavirus Stories IQP group may edit such materials. I hereby waive the right to approve any such use, either in advance or following distribution or display.I hereby unconditionally release the Coronavirus Stories IQP group and their representatives from any and all claims and demands arising out of the activities authorized under the terms of this agreement.By accepting this form, I represent that I am of legal age, have full legal capacity, and agree that I will not revoke or deny this agreement at any time.I consent to my name and likeness being used in the videos and associated video titles unless otherwise indicated to the Coronavirus Stories IQP group.

◯   I have read the foregoing and fully understand its contents

Please upload your video here

⬆ Add file

Back   Submit

Figure 17: Screenshot of the google forms second page

2.3 Responses Received

Through the networking done by our team, we were able to accumulate 24 different stories from students panning coast to coast in the US. The Google forms included information such as the participant's name and the University they attended, along with the data points for analyzing the effects of the COVID-19 on students. Whether it was a college student studying in

the small town of Dudley, MA at Nichols College or a college student in Los Angeles, CA studying at the University of California, Los Angeles, all students shared their stories regarding their experiences at the hands of this pandemic. Stories from students attending colleges within six different states in the US (Massachusetts, New Hampshire, Virginia, Maryland, Utah, and California) and 13 different colleges as whole were collected. The colleges represented were The Catholic University of America, Mira Costa College, Nichols College, Palomar College, Southern New Hampshire University, Tufts University, University of California Los Angeles, University of California San Diego, University of Maryland Baltimore County, University of Maryland College Park, University of Richmond, University of Utah, and Worcester Polytechnic Institute.

The broad demographic of participants allowed us to hear the experiences of college students from all different backgrounds. Regarding major areas of study, there were 18 different majors collected, ranging from seven different STEM topics to Biopsychology and even Kinesiology. There were also nine different students who competed at some level of sports within the college ranks, ranging from club sports to competing at the NCAA Division 1 level. Many of these students shared their disappointment regarding the cancellation of the sport season they spent countless months preparing for. Nine students also reported having traveling plans spoiled at the hands of this pandemic, including our group. All of these metrics can be seen in our video submission forms below, Figures 13-16**.** Overall, these 24 collected stories all show just how serious this pandemic has been and the life-changing effects that it had on the lives of college students throughout the United States.
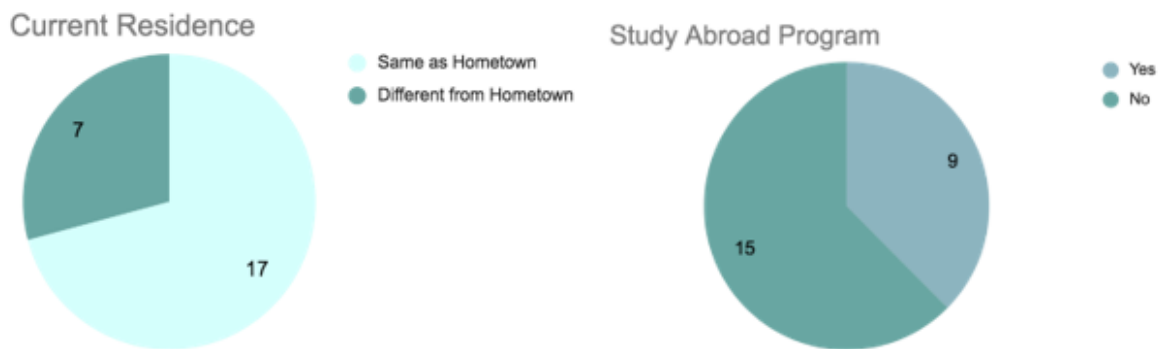
Figure 18: Current Residence of Students and Study Abroad Program
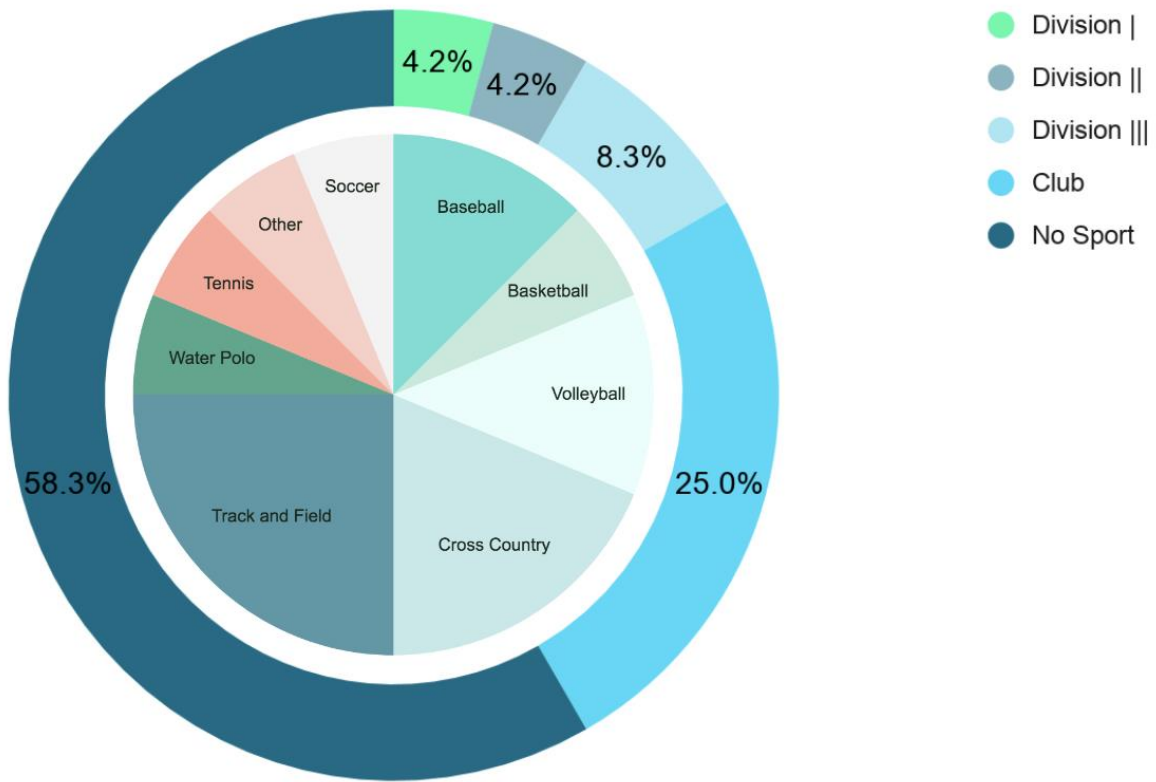
Figure 19: Sport involvement and the specific sports
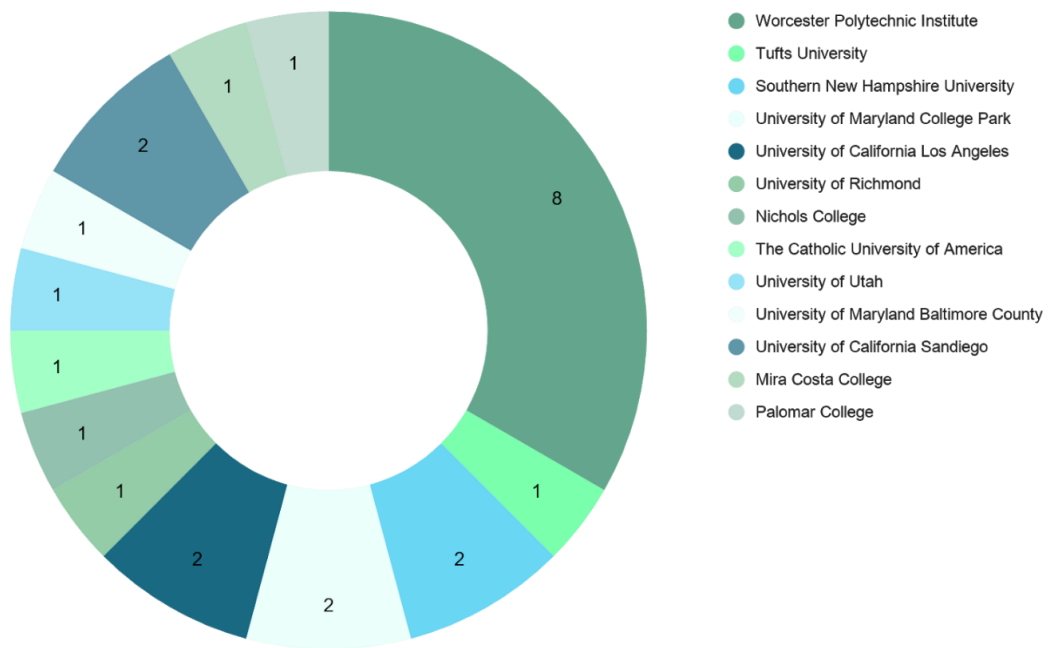
Figure 20: Universities the students currently attend
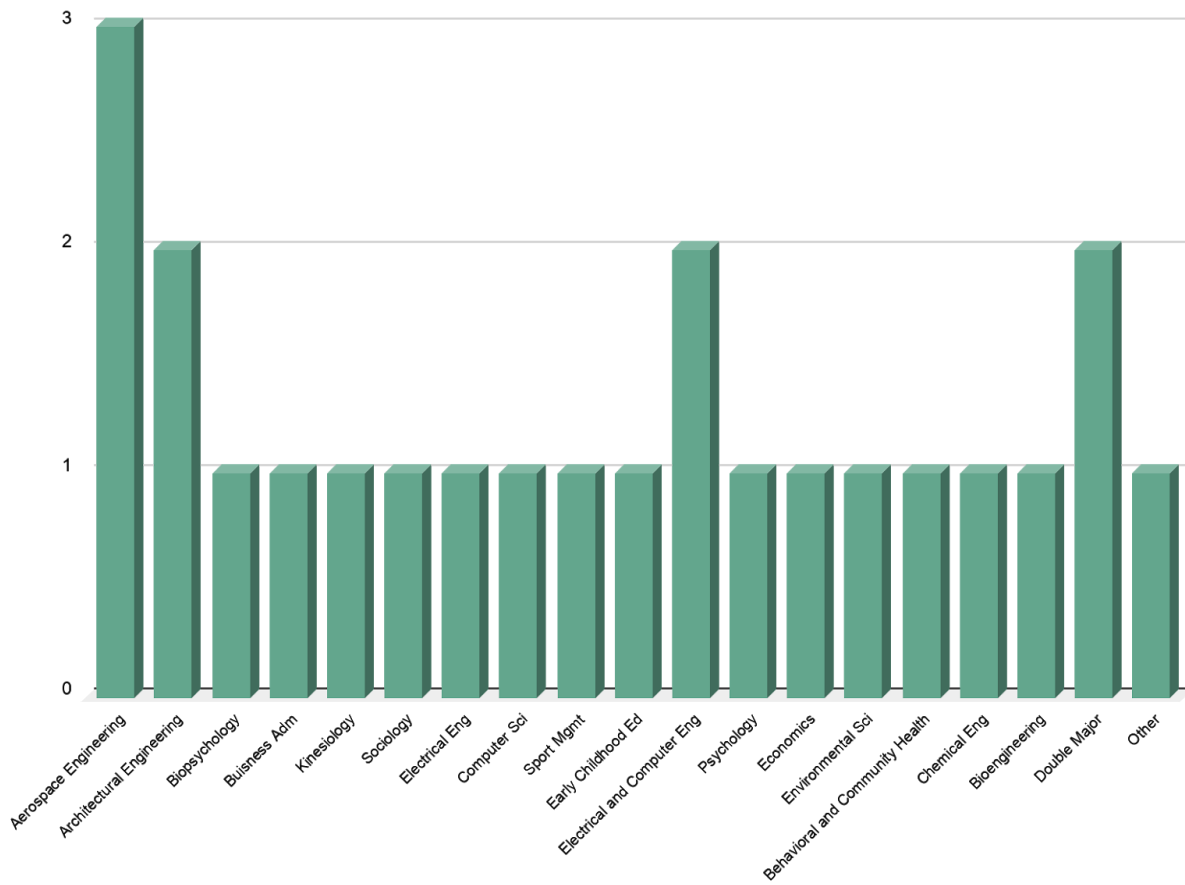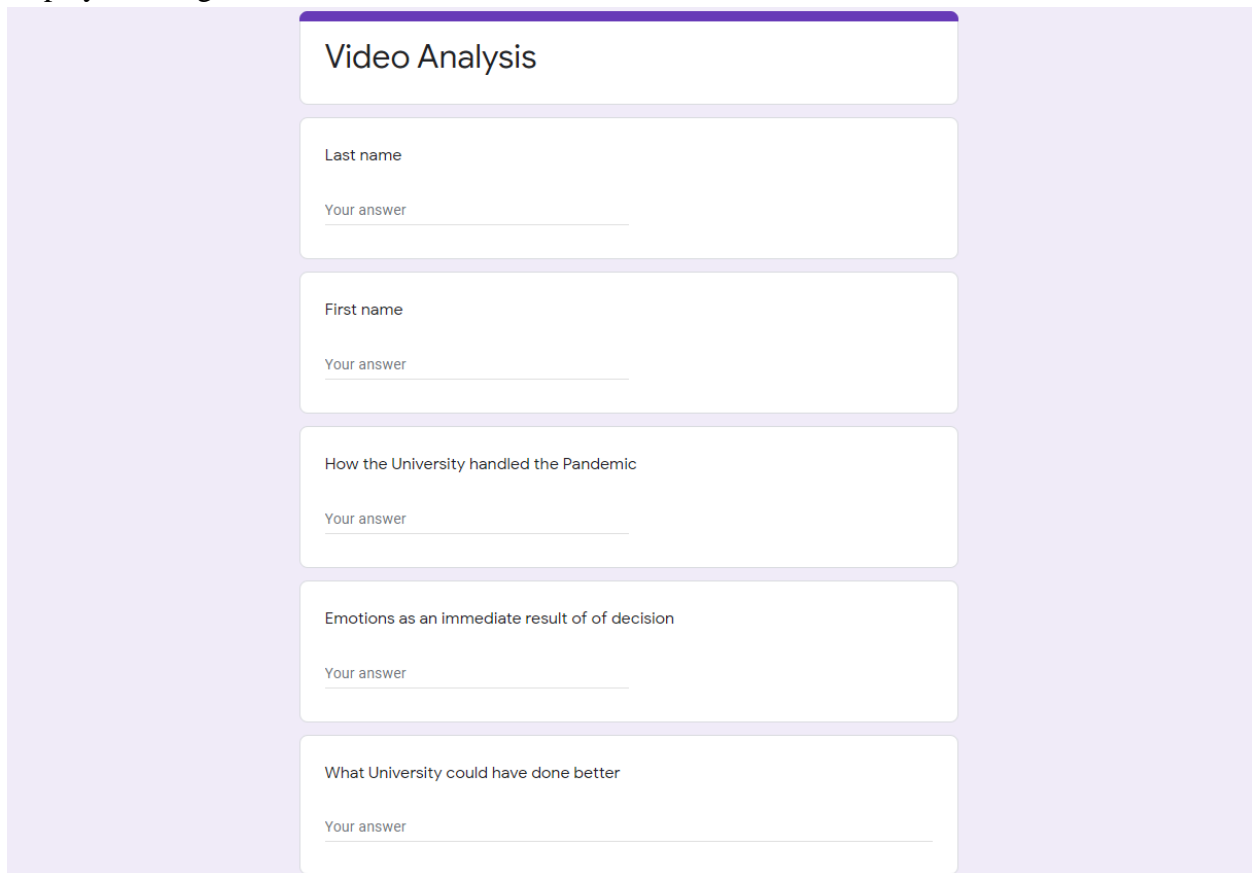
Figure 21: Students and their majors

3 Analyzing Student Responses

By analyzing the stories given by each individual about how they experienced the COVID-19 pandemic, the team identified commonalities in the individual experiences and determined potential reasons for these commonalities. The team determined potential reasons for these commonalities so that, in the unfortunate circumstance that a similar event occurs in the future, universities will have a greater understanding of how the students will be affected by the decisions they make, beyond just adapting to online classes. This understanding is crucial as it will allow universities to make decisions that will maximize the positive outcomes for the students while minimizing the negative impacts.

3.1 Creation of Evaluation Tools

One of the goals of asking students to tell their stories of how they were affected by COVID-19 was to determine which aspects of university responses students responded well to and which impacted them negatively. To do this, the team went through each video and looked for students' opinions on a few main topics. This analysis was done using a Google form displayed in Figures 17-19

Figure 22: Screenshot of the form used to codify video responses

Figure 23: Screenshot of the form used to codify video responses

Figure 24: Screenshot of the form used to codify video responses

3.2 Evaluation of the Responses

Once the contents of each video were entered into the form by a team member who watched it, the form was then exported to a spreadsheet. Utilizing a spreadsheet simplified the process of comparing individual answers and identifying commonalities, as discussed below.

After the data were put into the spreadsheet, the responses were coded using a set of generic codes which can be found in Appendix D. These codes allowed us to group the unique responses of each student to the questions into more generic categories, the occurrences of which could be counted to determine the number of students who responded in a similar manner to the pandemic. The coding for each individual question can be found in Appendix E.

3.2.1 Commonalities between Students

Once the qualitative answers of each student had been reduced to a quantitative form, it was possible to determine what commonalities existed in student responses to the COVID-19 pandemic. In addition to identifying the commonalities in student responses, it is important to evaluate why these commonalities may occur. By identifying potential reasons for these commonalities, universities can explore methods that would address the root cause of the students' reactions, thus preventing the reactions from occurring rather than trying to mitigate the reactions after they have taken place.

The first major commonality between students was the way their emotions progressed. When schools first started to move to the online format there were three major emotions that students experienced as a result of their schools' decisions. The first two emotions felt by students were understanding and confusion. These emotions, making up seven and eight of the 35 responses, respectively, were the most common answers aside from the third major emotion, anger. The 35 responses were obtained from the 24 students as several students cited multiple initial emotions leading to a number of responses higher than the number of individual students. While angry/upset was the most common response (13 of the 35 responses), only one student who felt that they had only lost the opportunity to be on campus and have in-person classes said they were angry or upset. The entire collection of responses can be seen in the word cloud in Figure 20 and have the frequencies shown in Figure 21.
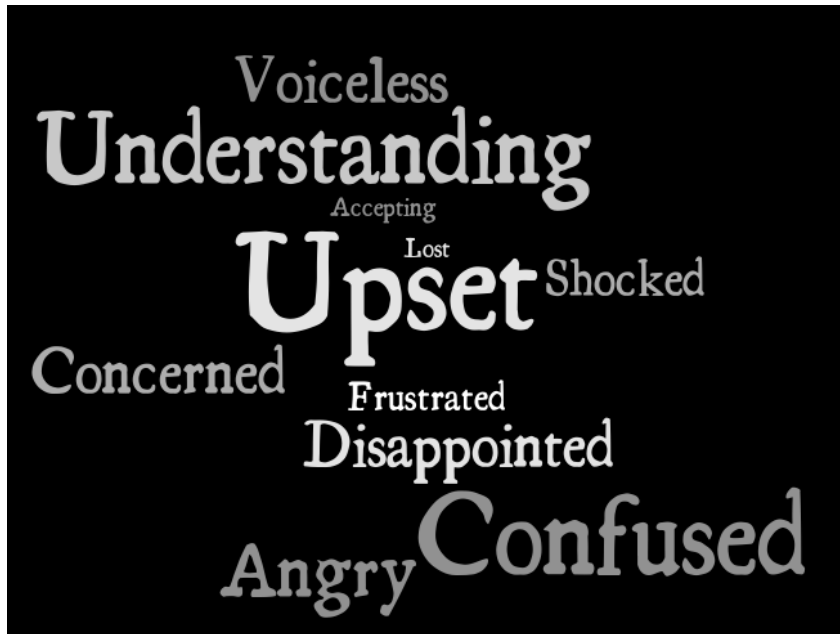
Figure 25: Word cloud of initial emotions experienced by students
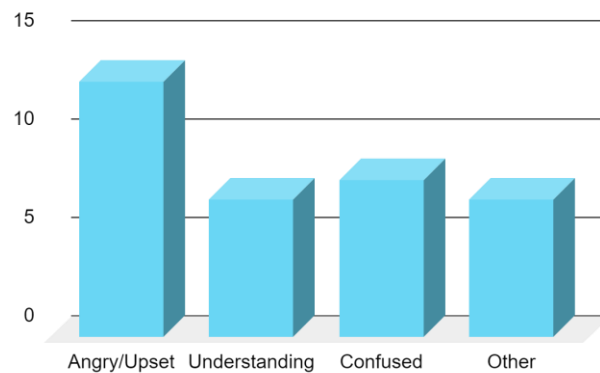
Figure 26: Initial emotions of all student responses

When considerations are made for students who felt they had something taken away from them in addition to this shared academic experience, such as an NCAA sports season, an opportunity to study abroad, or an internship, the initial responses reveal the third prominent emotional response and it tends to be much more negative. Of those students who felt they lost something extra, 63% reported that they were either angry or upset by their university's decision. The breakdown of these students' emotions can be seen in Figure 22.
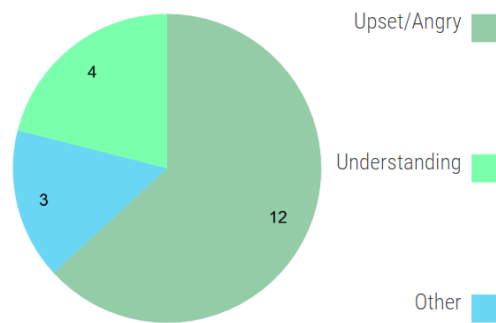
Figure 27: Initial emotions of students who play NCAA sports, were going to study abroad, or had internships cancelled

The reasons students who had additional opportunities taken from them reacted in a more negative manner is most likely due to emotional investment and a sense of unfairness. With all students losing the opportunity to have in-person classes and an on-campus experience it is easy to rationalize that reaction. Students without these special circumstances see that everyone is in the same position, so they likely conclude the school likely did it as it was the best choice for all of them. When a student felt they had additional loss, however, it is likely possible to react with some resentment that others had their sports seasons, their opportunities to study abroad, or their internships. Additionally, those activities are ones that require that participants invest large amounts of time in preparation. This additional preparation, done in addition to the usual academic activities, can result in an emotional investment that can affect the initial emotional impact and doesn't allow them to think through the situation in as logical a manner as those who felt they lost less.

While there were three distinct emotions experienced by the students initially, nearly all eventually came to the same conclusion: They understood the choices made by the universities. The reason so many of the students came to the same emotional conclusion after being given a period of time to process was because they could see how the pandemic progressed and could more clearly process the decisions made by their university. The students who were initially confused were able to see how the transition to online classes worked and could see the exponential growth of the infections that made the decisions necessary. The students who felt they had something extra taken from them could see just how quickly the pandemic spiraled out of control. This meant they could take time to evaluate just how dangerous continuing with whatever activity they had planned would have been. Not only that, but the additional time gave them the ability to separate their emotions from the logic of the situation and see the university's decisions for what it was always meant to be, something to protect them.

While most students eventually understood the decision made by their university, many felt that the manner in which their university acted could have been handled better. Only 33% of students felt their university handled the pandemic well while the remainder had complaints that ranged from a lack of student voice in the decision-making process, to a lack of empathy from

those making the decisions, to last-minute notification about decisions that did not leave enough time to prepare.

Key standouts in these testimonials are that universities notified students that they were unable to return to campus, forcing them to abandon any possessions, or situations where students were required to fly out to their school, during a time when the CDC was recommending against flying, in order to remove all possessions from dorm rooms. While it may appear that these two desires are contradictory, the common thread linking the students' opinions was the fact that they felt they had a lack of choice in how to manage the circumstances. The students just wanted the opportunity to decide what was best for them and not be told by their institution what was best. Even those who felt their university handled the pandemic well pointed out things that the university could have done better, mostly springing from a lack of clear and direct communication.

The reason so many students felt that the pandemic could have been handled better is because the students felt that they lacked choice. In an environment such as a university, which centers around providing choices to the students, such as what major to be, what classes to take, what clubs to participate in, and even where you go to school, students have become accustomed to participating in all the major decisions that affect them. In these four years, students feel they ultimately have the power to control almost everything, so when that is taken away a student would likely feel lost and feel they lacked the control they had grown so accustomed to. As a result, many students felt that if they had only been able to provide input to the staff members making the decision, then the decisions made would have had greater student support.

We identified two trends that represent the most significant ways in which the pandemic changed students' lives. First, students lacked the ability to interact with friends. Of the respondents, 45% said that they felt disconnected from their friends while they were home-bound. The reason so many students felt this way is likely due to the fact that college is a heavily social environment. For the four years most students attend university they become accustomed to working with and socializing with other people, whether in the form of group projects or social activities with friends on the weekend. University students become accustomed to living in close proximity to their friends and seeing their friends almost daily, so it seems natural that when the ability to do so is taken away that it becomes something the students miss acutely. The sociology of university leads students to rely on one another for support so many students feel that their support network has been removed or significantly hindered.

The second significant way the pandemic impacts students' lives was that students needed to find much more effective ways to manage their time. This aspect was highlighted in 45% of responses. Because of the removal of the structure of university life (which requires careful time management), many students found it difficult to motivate themselves to start their work when they could always just watch the lecture later or do the assignment tomorrow. Many came to realize that this lack of structure and need to manage time ended up leading to them producing lower quality work, even though they had more time to do it.

Similarly, some students explained the need for better time management as a result of working in a space where they typically did not do schoolwork. Many talked about how they typically did "homework" on campus either in libraries or public spaces and used their homes as a refuge from schoolwork. Now, due to the fact that they are stuck at home, students needed to find ways to motivate themselves to work in places where they had previously trained themselves intentionally to not worry about schoolwork. In addition to not being used to working in their new space, students also need to contend with the added distractions associated with working from home. Now, instead of being able to work in the library where it is quiet and the students are surrounded by others doing work, they are forced to work at home where it is likely louder and where distractions such as television, pets, siblings, and parents are much more prevalent. These results can be seen in Figure_ 23.
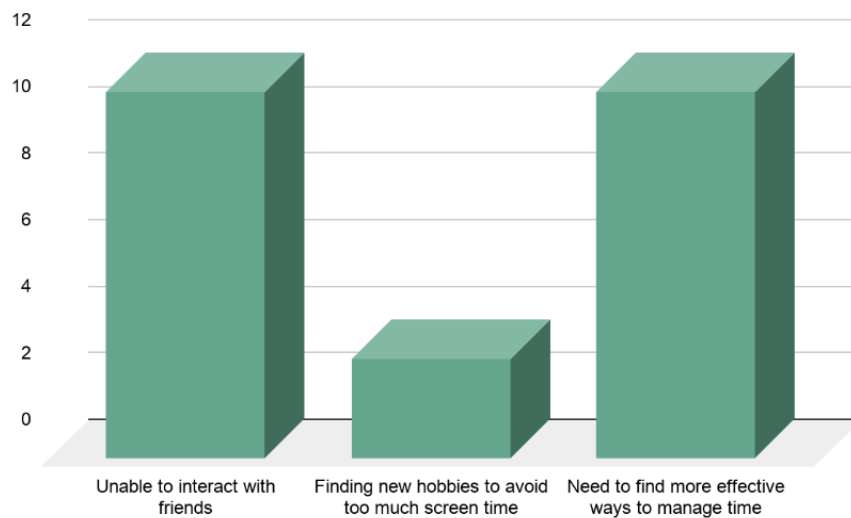
Figure 28: Ways students' lives changed as a result of the pandemic

When asked whether they believed that the world would change as a result of the COVID-19 pandemic, 76% of the students' responses were yes. While a few students stated that the changes would occur in the form of healthcare reform or stricter sanitation guidelines for companies, 75% of those who thought the world would change said that there would be an increased social awareness of the dangers posed by large gatherings as can be seen in Figure 24.
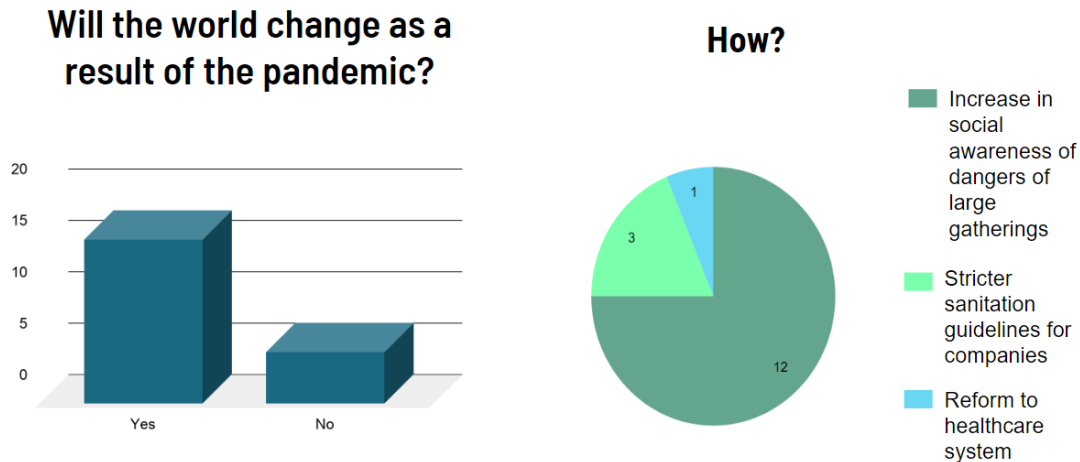
Figure 29: Will the world change due to the pandemic and if so how?

The prevalence of this response is very interesting coming from a group where the majority of their time is spent in large gatherings--whether in large lectures, parties on the weekends, sporting events, or other campus activities. As crucial as these events are to the college experience, one would think that the students would be looking forward to getting back to large events. Instead, their responses indicate that students seem increasingly wary of them.

The reason so many students believe that awareness of the dangers posed by large gatherings is the main change to the world is likely because that is how most students see themselves changing. As will be discussed later, most students see themselves as more conscious of safety in social situations. Because that is how they see themselves changing, it is natural for them to believe that is how the rest of the world will change. This phenomenon is known as consensus bias, where people validate their beliefs by attributing others to having those same beliefs (Bauman, 1997).

Finally, when asked what personal changes they will be making, the most common remarks were that they would be more cautious when in large groups (31% of responses) or be much more aware of how their actions could impact the health of others (20% of responses). This pattern is very telling. University students have taken to heart the need for change in how they act around others in order to ensure the entire population remains healthy. The reason so many of them feel this way can likely be attributed to seeing how effective social distancing has been in slowing the progression of the disease. Because the students can see that social distancing has been effective after the pandemic began, many may extrapolate that it would be an effective method in preventing a new pandemic in the future.

3.2.2 Correlation between Demographics and Student Response

As previously discussed, in addition to collecting the stories of the individual students, demographic information was collected. One of the main reasons this information was collected was to evaluate whether demographic characteristics had any correlation on the way they interpreted the COVID-19 pandemic and how their school handled the pandemic.

When comparing the responses of each student with their demographic information, one major correlation stands out. As highlighted above, those students who had something in addition to in-person classes taken from them, such as sports or study abroad, tended to have a more negative initial outlook on the pandemic.

With the exception of this one correlation, what stands out most, however, is that there is a distinct lack of correlation between most aspects of the students' demographics and the way they perceived the pandemic. Regardless of where the students went to school, whether it be east coast or west coast, private university, public university, or community college, students had a very similar distribution of emotions, opinions, and future outlooks on the results of the pandemic or their school's handling of the events. These observations were consistent without regard to where and with whom they currently reside.

Additionally, the academic major and year of graduation seem to play minor roles in the outlook of students. This was one of the more surprising findings as the team expected that the closer a student was to graduation, the more they would feel they were missing. The fact that they reacted in a manner similar to those with several years left of college, however, displays how most students have come to accept that given the severity of the pandemic their school made the right decisions for the students.

This lack of correlation may suggest that the perception of students on the events of this pandemic depended much more on what each individual student had going on in their personal life than on the school they attended. Students who attended the same school tended to have very similar perceptions of the way the school handled the event. This leads us to the conclusion that while there was no correlation across types of schools, there was correlation within the schools themselves. Overall, the way students perceived the pandemic seemed to be similar across the United States with only individual school choice and life events affecting the way the student interpreted decisions.

In summary most students held similar outlooks on the situation. Most students:
- Who had changes to their expected lives in addition to the transition to online courses reacted more negatively than their peers
- Eventually understood the decisions made by their universities
- Believed their schools could have handled the situation better
- Felt isolated
- Needed to find better ways to manage their time
- Agreed the world would change as a result of the pandemic

These commonalities occurred with almost no connection to the demographics of the students, illustrating that the students' individual situations and experiences played a larger impact on how they viewed the pandemic than where they came from or what type of school they attended.

4 Creating the documentary

4.1 Introduction

The introduction of the documentary is arguably the most important part of the video as it will be the part that "grabs" the viewers' attention. Our introduction is a timeline of how the pandemic developed in the first few months of 2020. This section is mostly informative. It includes various clips from news headlines and statistical data related to the pandemic. Additionally, it includes a few clips from the personal stories that reflect the events represented in the timeline. This includes information regarding how colleges switched to online learning. For example, a common occurrence was that people often underestimated the impact of the outbreak when it started. Clips of headlines form the months of January and February 2020 often reflect how most people dismissed or minimized the outbreak at first. This section is more informative when compared to the rest of the documentary. This is helpful for the audience as it presents the context for the project and provides enough information for viewers who may not be very informed on the subject.

While it does not contain most of the data gathered through the project, the introduction sets the tone for the entire video, hooks the audience, and presents the main goals of the project. First, the introduction will set a mood for the remainder of the video. The video aims to be somber, especially at the beginning, but transition into a lighter tone towards the end. The timeline showing the exponential growth of the virus sets this mood perfectly. As the video presents an increase in the numbers during the outbreak, it is mirrored with clips from news channels talking about how the world was affected by the outbreak at the time. The constant buildup created by the timeline of the outbreak and the small clips of the personal stories should spark initial interest from viewers.

This section also introduces the group and the group's main goals of the project. This includes introducing the fact that many students felt that they had no say in the decisions of the university. Additionally, the introduction briefly mentioned how the group collected stories to showcase some of the more unusual consequences of the quarantine. In conclusion, the introduction of the documentary attempted to capture the audience's attention, set a mood for the video, and present the goal of the project.

4.2 Main Body

The main body of the documentary is the longest part and contains most clips from the personal responses. This part of the video is guided by title cards that describe the questions that the responses that follow answer. Each main topic presented is accompanied by various clips

from the responses that hit similar notes. Topics include initial emotions, consequences for sports and other extracurricular activities, travel plans, unique circumstances, and how the pandemic has changed people.

The initial reactions to schools opting for remote learning are the first topic in the main body of the video. This is accompanied by participants mentioning how they underestimated the impact the outbreak would have, which is also reflected in the introduction of the video.

The next section addresses sports and extracurricular activities how they were affected by the pandemic. Multiple stories from athletes discuss how they had the seasons of their respective sports canceled. In addition, this portion discusses the effects on the extracurricular activities of many students. With universities switching to remote learning, many participants found it difficult to maintain their extracurricular activity.

The body of the video also talks about the participant's travel plans and how they were affected by the outbreak. Two examples of this are studying abroad programs being canceled and students not being able to return home. Another common response was the uncertainty around many of the participant's summer internships.

Finally, one of the questions for participants is how their lives changed due to the pandemic. The group received a variety of answers to this question. Some participants mentioned that they do not foresee any changes for the future apart from keeping some hygienic habits developed during the quarantine. The main body of the video goes over a large portion of all the responses. Unlike the introduction, the body of the documentary does not rely on outside footage.

4.3 Conclusion

The conclusion of the video aims to change the tone of the previous sections. While the introduction and main body of the video have a somewhat somber tone, the final part of the video hopes to be more optimistic.

One of the questions the group asked participants was for their advice for anyone going through a similar experience. The team received a variety of different responses to this question. For example, participants recommended finding a hobby and looking for ways to stay connected with their friends. These responses naturally shift the video's mood to be more hopeful.

Many participants mentioned how they were thankful for what they had and for the people who were still working on everyone's behalf. This concludes the video perfectly. In its entirety, the video represents a large number of the responses the team received. It begins with people dismissing the virus, not understanding that it had the potential to cause a pandemic. It is followed by shock, paired with anger and frustration, as schools begin to close, and students miss

out on their plans for the rest of the semester. Finally, the video concludes with people being much more understanding of their university's decision and, to some extent, being grateful for what they had. This progression mirrors that of the majority of students in their individual videos making the documentary a good summary of all the students experiences.

5 Recommendations and Conclusions

By reviewing and analyzing the student submitted videos, the team was able to develop a deep understanding of how students throughout the United States reacted to the COVID-19 pandemic. The following recommendations based on those findings will help with the diversification the database of students' stories and methods through which universities can improve their approach to similar situations in the future

5.1 Improving University Response

As a result of the analysis of the videos submitted, our team believes that universities could take actions to ensure that students in a similar situation in the future react with a more positive outlook.

The first action is to ensure that all communication to the students is timely. While it is not always possible to provide weeks to months of advanced notice in quick moving situations such as the one experienced with COVID-19, one of the largest complaints students had with the way universities handled the situation was that notification was given on too short of a time frame. Whether it was canceling study abroad just days before students departures, turning final exams into online exams just hours before the exam, or notifying students residing in other states they had just a few days to return to campus to pack their dorm rooms, many students felt they were not provided adequate time to adjust to situations. Especially in circumstances where there is bound to be large amounts of emotion such as the cancellation of study abroad, it is crucial students are provided enough time to make changes to their plans and come to terms with the situation emotionally.

The next action universities should take is to ensure that empathy is shown to the students. While it is necessary to relay the facts to students in an efficient manner, it is equally important to show that you care for your students and what they are going through, so that students have enough time to process these changes emotionally as well as intellectually, as discussed above. Empathy is a critical aspect to making sure that your message is not only heard but understood and the decision to close is accepted by students as necessary. Many of the students are already under a large amount of stress when dealing with situations like this, whether it be a sick family member, financial issue, or the academic challenge of moving to online classes. In these circumstances, the appearance of a lack of empathy from above only adds to that stress, which is something universities should be striving to minimize.

The final and most important action that universities should take to make students react in the most positive way to the decisions is to include the students in the discussions. While ultimately, the decision must be made by the university acting to maintain the safety and well-being of students, faculty and staff, and the broader community, the inclusion of students, even if they may not agree with it, is vital. Students can provide a point of view that no one in administration has as well as providing creative and out of the box ways to improve either the steps that must be taken or the way the message is delivered.

Universities teach students to be creative and analytical thinkers so tapping into the base of knowledge professors spend so much time cultivating makes perfect sense. Even if none of the students are able to provide creative out of the box ideas by including them in the conversation they are able to see why the decisions were made the way they were which will cause the students to be much more receptive to whatever the final decision may be.

5.2 Diversification of the Story Database

During our project the vast majority of responses came from regions centered around the hometown of each team member. In order to diversify the responses, we recommend that further teams be formed to work on a similar project. Continuing the collection of coronavirus stories would diversify results by providing a different sample of response to the questions we raised outside the immediate transition to online instruction during the pandemic.

A new team would likely have different hometowns causing the students videos to expand and cover schools beyond the original 13 covered in this project. Additionally, the various hometowns would likely expand the videos to cover more states than the original six covered producing a more representative distribution of videos.

The next team to work on the coronavirus stories project would be able to spend significantly more time collecting a variety of stories as opposed to designing a collection process. A longer period during which stories can be collected will allow for a larger snowball effect of sampling where students can recommend the project to their friends letting the project grow naturally. Additionally, a story collection period will ensure that participants are able to work the project into their schedule easier since they will have more time to find a free spot in their schedule.

Another way that a group continuing the project would diversify results is through expanding the sample group. While our team restricted our subjects to current college students within the United States a new group could easily expand this sample group to students from around the globe or expand the sample group beyond universities and begin to look at the schooling system as a whole as opposed to just college students. Both of these would quickly diversify the information received and could possibly illustrate commonalities hidden within the United States higher education system that would otherwise be impossible to identify and evaluate.

5.3 Conclusion

After the COVID-19 pandemic led to the cancelation of our original project in Copenhagen, Denmark, we changed focus from creating a model for environmental action plans to collecting personal stories from students who were impacted by the COVID-19 outbreak in order to ensure their voices are heard and their stories are known. After feeling voiceless in the decisions made by our university the team felt it necessary to give other students the voice we had originally lacked.

In pursuit of this goal the team collected stories of university students across the nation in the form of videos. These videos were then turned into a documentary highlighting the student perspective of the COVID-19 pandemic and discussing the many impacts on their lives beyond the transition to online classes. These stories displayed the many unexpected impacts on the students as well as how the students perceived their university's actions. The stories were then turned into a documentary displaying the change in student perspectives alongside details about the pandemic's progression in addition to highlighting the unique experiences students had throughout their time social distancing.

In addition to the documentary the team evaluated the responses provided by students in an attempt to find commonalities between student experiences and try to determine reasons for those commonalities. Once these commonalities and potential reasons were identified, the team made recommendations for universities so they could minimize the negative impact on the students' lives. Alongside the recommendations to universities, the team recommended that the project be continued by future teams so as to expand and diversify the database of student stories creating a more representative picture of the student experience.

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Appendices:

Appendix A: Video Questions

Questions to be answered:
1. If someone asked you in 10 years for your story about the COVID-19 pandemic as a college student, what would that story be? (~3-5 min)

   Responses might include but are not limited to:
   - How you first heard about the pandemic
   - How your university handled the situation
   - What you felt could have been done better
   - How the change to online classes affected you
   - How you were affected outside of your coursework (i.e. sports, traveling, staying at home, etc.)
   - How you were financially affected
   - What the emotional impact of the experience was
   - Any distinct circumstance you encountered

2. What about your daily life has changed as a result of the pandemic? What advice do you have for anyone in a similar situation?

3. After this situation resolves do you think the world will return to the way it was before? If not, what changes do you think will occur?

4. What changes will you be making in your life going forward in how you treat others and view the safety of the world?

Appendix B: Media Release and Waiver

Media Release and Waiver

By submitting a video story, I affirm that I am the sole author or creator of this work and hereby grant to the Coronavirus Stories Project at Worcester Polytechnic Institute (WPI) the non-exclusive world rights to distribute, share or edit this video for viewing on public platforms hosted by WPI or other media. I understand that the video is being collected to document the experience of students whose universities changed their instruction methods as a result of the COVID-19 pandemic. This project aims to allow college students to tell their own stories regarding how they were affected during this time. These stories are being collected by undergraduate students completing an Interactive Qualifying Project (IQP) at WPI. I give consent and permission to the Coronavirus Stories IQP student group to share my video, analyze its contents in an academic research project, and edit or use scenes from my video containing my name, likeness, and voice to make a documentary consisting of selections from the stories submitted. I understand that the student group is under no obligation to use the video I submit. I hereby waive the right to approve any such use, either in advance or following distribution or display. I understand that I will not receive any compensation for granting this permission. I hereby unconditionally release the Coronavirus Stories IQP student group and their representatives from any and all claims and demands arising out of the activities authorized under the terms of this agreement. By accepting this form and submitting this video, I represent that I am of legal age, have full legal capacity, and agree that I will not revoke or deny this agreement at any time. I have read the foregoing and fully understand its contents.

Appendix C: Template Email to Potential Participants

To whom it may concern,

Thank you for considering participation in the Coronavirus Stories project at WPI. We are collecting the stories of the students who were impacted by the COVID-19 Pandemic. Your participation is voluntary, and you can choose not to participate at any time.

At this link you will find a more detailed description of the Coronavirus Stories Project which gives:
- A detailed description of what the project
- What our student group is looking for in a participant
- Some instructions for how to record your story
- The questions we would like you to answer
- Links to example videos
- Instructions and a link to submit your video

Please take your time to review all of these details. To submit your video, you will be asked if you agree to the conditions in a media release waiver. Your video must be submitted before April 30, 2020 if you would like it to be considered for the final documentary.

If you have any questions or concerns please reach out to me at gr-d20-coronavirusstories@wpi.edu. I look forward to receiving your video.

Respectfully,
_____
Coronavirus Stories IQP team

Appendix D: Generic Codes used for Identifying Commonalities

Emotion Code	Description
Angry	Use words like angry, pissed off etc...
Understanding	Use words like understand situation or appropriate response
Upset	Simliar words to angry but with less intensity
Confused	Didn't understand why actions were taking place
Accepting	Saw there there was no other option even if not happy about it
Dissappointed	Sadness, lost opportunity
Frustrated	not angry or upset but felt that something was taken from them
Improved Handeling By University	**Description**
Allow students to have a voice	Students felt voiceless or that they had no say in the actions taken
Last minute notification	Students had plans that were effected because of how late they were notfied of the situation
Lack of empathy from above	Students felt the School's communication didn't cntain enough emapthy for the student
Handled Well	felt the school handled the situation well and had no extra recomendations

How Life Changed	Decription
Unable to interact with friends	Any Discussion Focused around limited interactions with friends
Finding new hobbies to avoid too much screen time	Any discussion about new hobbies such as cooking, reading, etc
Need to find more effective ways to manage time	Discussion about managing school work when at home
Need to take extra caution when training	Discussion around traing for sports calling for more cautious lifestyle
Advice for others	**Description**
Don't take anything for granted	Discussion about making sure you appreciate what you have
Have a support network	Discussion about mainting communication with friends and family
Pick up new hobby	Discussion about new hobbies such as cooking, reading, etc
Be adaptable	Discussion about going with the flow and understanding that no one has all the answers
Treat Others with Kindness	Discussion about being nice to those around you and keeping others feeling in mind
Make a schedule	Discussion about using something to manage your time more effectively

Effect Outside Class	Description
Sports	Based on Name
Travel	Based on Name
Study Abroad	Based on Name
Internship	Based on Name
Other	All others that do not fit above categories

Personal Changes	Description
Be more aware of how their actions can affect others	Discussion about being conscous how you can effect others
Be more cautious when in groups	Discussion about being wary of social gatherings and others health
Be more appreciative for what they have	Discussion about not taking anything you have for granted and appreciating it for what it is
More Appreciative towards essential workers	Discussion about respecting those working in essential career fields
Live in the moment	Discussion about not not worrying about what is next but enjoying what you have
Educate self on current events	Discussion about staying up to date on current events so informed descisions can be made and you can be more prepared

Appendix E: Coding of Individual Questions

Emotion	Occurance
Angry	5
Understanding	7
Upset	10
Confused	8
Accepting	1
Dissappointed	4
Frustrated	2

What could have been done better by Universities	Occurance
Allow students to have a voice	4
Last minute notification	6
Lack of empathy from above	5
Handled Well	8

Affect outside class	Occurance
Sports	5
Travel	10
Study Abroad	9
Other	3
Internship	2

How life changed	Occurance
Unable to interact with friends	11
Finding new hobbies to avoid too much screen time	3
Need to find more effective ways to manage time	11
Need to take extra caution when training	1

Advice	Occurance
Don't take anything for granted	4
Have a support network	4
Pick up new hobby	6
Be adaptable	6
Treat Others with Kindness	1
make schedule	2

Will the world change	Occurance		How	Number
Yes	16		Increase in social awareness of dangers of large gatherings	12
No	5		Stricter sanitiation guidlines for companies	3
			Reform to healthcare system	1

Appendix F: Important Links

Team Website: https://sites.google.com/view/coronavirusstories/home

Team YouTube Channel: https://www.youtube.com/channel/UCFR1bgqudM41xjZtoiuTD6A

Documentary: https://www.youtube.com/watch?v=C-rpDtKQ9sI