# Spring 2020 Faculty Interviews

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## Introduction and Background

The results of this paper are part of a larger study completed at SJSU that analyzed the impact of the coronavirus pandemic in Spring 2020 and the rapid switch to online instructions on students and faculty. The current article describes the results from the faculty survey and the faculty interviews. This section describes how our team recruited survey’s participants and conducted faculty interviews.

## Faculty Interviews

### Recruitment

A final question in the faculty survey asks for volunteers to participate in an interview. All volunteers were contacted by our team to conduct interviews, except for faculty members that are currently acting as Chair of a department in the college. A total of 23 interviews were conducted.

### Interview protocol

For the interview, we adapted the interview protocol that was used by Pawley at Purdue University. The interview consisted of two questions: “How did you do in your classes in Spring 2020?” and “How did SJSU as an institution do in this transition?”. According to Pawley, these open questions allow “participants to tell their stories in whatever way they chose”. Some participants asked for more guidance in answering the questions, and we therefore developed a variety of prompts such as “Tell me a little about yourself. Tell me about your experiences at SJSU after the transition to 100% online instruction. Has COVID 19 made any impact on your life? Let’s talk about that for a minute; Tell me more about that; So, just to clarify…How did you learn about this? What was important to you? Any regrets? Anything you wish you had done differently? Anything else you would like to tell me?”

The interviews lasted about 20 minutes. The interview recordings were completed through Zoom cloud, and Zoom automatically created a transcript of the recording. Our team reviewed the transcripts and recordings together for typos in the transcript and words that the transcriber misheard or misunderstood. We then pseudonymized the transcript, masking names, places, ages, organizations, ethnic groups (replacing them with broader racial categories), nationalities, languages, and religious affiliations or communities for those participants who desired it and the names of people participants mentioned. We sent the participants both the original (for their records) and the pseudonymized transcripts to review for inaccuracies or things they regretted saying. The revised transcripts were coded by two persons in the team, a faculty member and a graduate student. An iterative inductive stage was used that involved several close readings of the transcribed interviews to code the results. This reading provides a holistic perspective of the responses. At this stage, points of interest and interpreted significance are coded by the team. Dr. Chierichetti and a graduate student coded the same transcript and then compared and arbitrated their results until they achieved a valence of consistency that approximated near complete calibration. The coding was defined using NVivo 12, a qualitative data analysis tool, to code response and identify outstanding themes of perceived in the student and faculty interviews. The second stage consisted of a step-by-step analysis that goes into the description of the analytic themes derived from stage 1. In the third stage, the development of a narrative that moves through several levels of analysis: 1st, a rich description of the phenomena, from the participants’ perspective; 2nd, through an abstract level of analysis; to 3rd, a more conceptual interpretation conducted by the investigator(s) is completed.

### Participants

We conducted 23 interviews among the faculty of SJSU College of Engineering of which 6 are female, 16 male, 1 unassigned. Most of the participants were lectures (18/23), with also 2 tenure track participants and 3 tenured faculty. Of these faculty, nine have been teaching at SJSU less than five years, six participants for 6-10 years, two for 11-15 years, and six faculty for more than 15 years. All the departments were represented by the participants, as can be seen in Table 1. We have not included the department in which each faculty primary teaches out of concern of being identifiable due to small number of teaching faculty. Each participant has been assigned a pseudonym, according to the Atlantic Tropical Cyclone names for 2020 and 2021 [1].

Table 1. Interview faculty participants

|  |  |  |  |
| --- | --- | --- | --- |
| **Participant** | **Gender** | **Faculty Status** | **Years Teaching at SJSU** |
| Josephine | Female | Lecturer | 6-10 years |
| Dolly | Female | Lecturer | more than15 years |
| Hanna | Female | Tenure-track | 0-5 years |
| Laura | Female | Lecturer | 6-10 years |
| Paulette | Female | Lecturer | 6-10 years |
| Vicky | Female | Lecturer | 11-15 years |
| Kyle | Male | Tenured | more than15 years |
| Arthur | Male | Tenured | 0-5 years |
| Isaia | Male | Lecturer | 0-5 years |
| Cristobal | Male | Lecturer | 0-5 years |
| Edouard | Male | Tenured | more than15 years |
| Victor | Male | Lecturer | 6-10 years |
| Gonzalo | Male | Lecturer | 0-5 years |
| Peter | Male | Lecturer | 11-15 years |
| Nicholas | Male | Lecturer | 0-5 years |
| Omar | Male | Lecturer | 6-10 years |
| Marco | Male | Lecturer | more than15 years |
| Larry | Male | Tenure-track | 0-5 years |
| Henri | Male | Lecturer | 0-5 years |
| Bill | Male | Lecturer | more than15 years |
| Fred | Male | Lecturer | more than15 years |
| Wilfred | Male | Lecturer | 0-5 years |
| Bertha | Unassigned | Lecturer | 6-10 years |

# RESULTS

## Analysis of Interviews

The majority of the faculty that were interviewed never taught online before, and were therefore required to transition to online format with very little preparation and formal training. Faculty got quickly up to speed in online teaching, attended brief trainings offered by the university during Spring 2020, looked for IT and instructional designers’ support, and turned for help to other faculty members. In preparation for Fall 2020, the majority of the faculty attended a 3-week long training on online teaching offered by the university during Summer 2020.

The analysis of the interviews has been divided into four main themes: “Testing and assessment”, “Experience”, “Teaching approach”, “Hands-on laboratories” that will be discussed in the following sections.

### Testing and assessment

Testing and assessment has been the main point of discussion during the faculty interviews. We identified the following codes as part of this category:

* Online testing: 15 out of 23 faculty
* Concerns about Cheating: 9 out of 23 faculty
* Grading Issues: 8 out of 23 faculty
* Students had higher grades: 6 out of 23 faculty
* Students had lower grades: 4 out of 23 faculty
* Faculty made more exceptions to students: 3 out of 23 faculty

Faculty members in Engineering are highly concerned about finding assessments that are meaningful and allow them to assess both lower taxonomy and higher taxonomy skills. Most of the faculty changed their assessment strategies, moving from traditional closed book exams, to open books exams, and experimented with different types of assessment strategies such as open ended exams, multiple choice or take home exams. Kyle, for example, discusses the need to experiment with different type of online assessment strategies during the semester.

“The exam I mean that that was a little bit difficult experience the exam, the first exam, which we did we use zoom […] Now the second exam that I use a different process. I use the lockdown. […]

And then I change it to a multiple choice question and now with the multiple choice question the computer can generate the answers randomly.” - Kyle

Many faculty are concerned about students cheating and academic dishonesty, and are not very confident in their ability to truly assess individual students’ skills.

“I think testing in an online environment is very, very difficult. […] I think testing is a real real challenge for the engineering curriculum, to be honest with you. […] Students are cheating. I'm not saying that at all. I think I think exam integrity is a big, big challenge, for engineering for the engineering curriculum. “ - Peter

In order to minimize cheating, some of the faculty experimented using video proctoring during assessment, either using software such as LockDown browser, ProctorU, Impendus or monitoring students using synchronous zoom meetings. In some cases, this has resulted in students’ push back, with faculty feeling under pressure about their assessment strategies

“And they were saying like why I'm only using this because many other faculty are giving take home exam and I'm the only one who does like who tortures them you know like basically, They felt that way a little bit, and I tried to compromise with them. […] they were like trying to push me even say that they even send email to our chairs if there is a way to do not have tests online. […] from one side, I felt like they were under the stress and I understand that situation, but at the same time, they just wanted to take advantage of it.” - Hanna

Faculty feel responsible about preventing cheating but in many cases they are not sure about best practices for online testing, or find that it takes excessive faculty time to prepare the assessment.

“On exams, there was a lot of rampant cheating. […] some of the students are, you know, told me that they were constantly you know messaging, or, you know. How are you going to you know stop it without making faculty responsible for them not to cheat? […] So, I, I don't know. I mean, you cannot make you know 10 different question papers. I mean, that will be ridiculous, right. So, I just don't know how to do it. And if you don't go the traditional testing route, you know, how would you test them? Is it more pop quizzes and giving more weightage to those? I don't know, So, if you can come up with some guidelines and those, and how to, you know the, the whole academic integrity and how do they, how, you know, how do you make them responsible for the learning, I think, I think that would be important” Arthur

### Experience

Faculty experience has been defined as positive, with a general ease to transition to the online environment. We included the following codes in this category:

* SJSU acted appropriately as an institution: 14 out of 23 faculty
* Positive Experience: 14 out of 23 faculty
* Online teaching and learning difficulties: 13 out of 23 faculty
* Faculty found easy to transition to online teaching: 11 out of 23 faculty
* SJSU should provide more support: 6 out of 23 faculty
* Faculty SOTES: 3 out of 23 faculty

Faculty in general report having a positive experience teaching in the online environment, and define the transition easy. Online teaching is found by some faculty to be convenient. The transition to online teaching was define by the interviewed faculty as “smooth”, “seamless”, “pretty easy”, “not that hard”, “not as challenging”, “convenient”.

I feel like Spring was a fairly seamless transition, as seamless as it could have possibly been – Cristobal

I just continued with the lectures, you know, didn't really skip a beat and it went well and went really well. […] It was good. […] With respect to the class. I think, I think it went fine. […] I was able to get through those this time so I did find the online format, more efficient and it was definitely easier for me. You know, I didn't have to drive commute to nest apart didn't have to walk over to the class set up the audio visual. […] So I, I liked it. – Fred

I think, I think it worked out very well for me. It, I was very happy like I'm now comfortable teaching online or in-class. Both are okay with me. Isaia

At the same time, faculty note that the transition faced them with challenges in their teaching approach, such as grading and assessment, forming a personal connection with the students, listening and supporting students who were struggling because of their personal situation, maintain students’ engagement, and zoom drain. Faculty note that students are struggling because of the difficult situation, such as described by Vicky below.

“They [students, ndr] were thrown into this mess. They had family problems and stress because people were losing the jobs. It was just a mess. […] But it was so there was a lot of stress, our students suffered a lot of stress, more than I thought would happen. […] I didn't realize that they would be out of work or the parents would have been laid off. Then they felt the stress that they had to work to help their families. I really had never seen anything quite like it. […] And then, as I said, I think I don't know what caused some of them I reached out to them. Never heard back for them just to drop be gone. And what one of them was even my best student, I mean, he was a solid A up to that point. And because of family pressure. He had to quit. That one broke my heart.” - Vicky

For some faculty, meeting students’ need comes at a cost of personal well-being.

“That it helped them, but it was incredibly draining for me because I would be on zoom for five hours every Monday and Wednesday. I have, a five minute break here and there they go get another drink and use the facilities and rush back and get started again. So, the zoom drain was incredible. And I would basically I'd be done for the rest of the day I interact with my family but mentally I was just put. And my students seem to have very similar reactions to having to be engaged with their classes online, whether it was my class or another class but many times I heard that they were struggling to keep up with the dates, because there wasn't always that engagement directly with their instructors and even with the engagement with me. It was hard for them to keep up.“ - Josephine

Some faculty note a discrepancy in his experience as a faculty and the students’ experience

*“It turned out that, I thought okay, I thought in terms of delivery from my side, I did not see any difference. But then students did not like it at all. […]* They had difficulty and I had to a lot of times I had to go over things repeatedly, they wouldn't get it so it take, it's, most of them did not like that.*” – Arthur*

SJSU as an institution has been effective at how it responded to the difficult circumstances. Many faculty praise the IT team for the quick transition and the many trainings regarding online teaching resources and software offered to faculty members.

“I thought they did a great job in the way they handled everything because it had to happen so fast, especially the training that was available.“ - Bertha

“I feel like the IT people did a wonderful job of helping get everyone up to speed as best as possible with zoom and remote learning technologies.” Cristobal

“It's actually hard for me to imagine anything that could have been done better. It doesn't mean that things were great, but this is catastrophic. This is before all of this happened. I think what is happening is beyond all of our imaginations.” - Laura

“I’m really grateful and happy that the prompt response from San Jose state. In terms you know again, limiting the exposure to the students and myself by making that early call of just transferring everything online.” – Wilfred

At the same time, some faculty note that SJSU could have been more supportive of their faculty and students, first of all by asking faculty what they need and how they can be best supported in their teaching, by promptly providing devices needed to teach (laptops, tablets, printers, scanners where needed), by providing some guidance and best practices in terms of grading and assessment strategies.

“So I really feel that it was a lot of scrambling that was doing a lot of, some faculty members were allowed to do things that I found unacceptable, like one faculty member I know decided they weren't going to have any zoom, they weren't going to have any anything, and they just assigned homework. […] So, I think that that's where the university really let faculty down. Is they did not have a collective effort where they said, okay, we're taking this week off and basically they said we're taking this week off so you can get your act together. […] there was never anything that went out and said, how can we support you?” - Dolly

“We need more support from the university to the student […] Okay, so, if a faculty doesn't have a computer. Then this is a problem. The second thing a faculty need a scanner and I need a, I need a scanner and then needs a printer. Well, I do have a printer. Okay. And it's a fast printer. I didn't have a problem. I did have a page by page scanner but I have one at work, which is a fast, fast scanner, you can do 50 pages per minute.” – Kyle

“I wish that the purchasing for things would be a little bit easier I requested to get like a tablets that I could work through some laboratory problems and structures, just to be able to write and draw. Because if not, I'm gonna have to set up a camera.” – Nicholas

“Effort by the university to help us on the testing side to you know, some kind of guide that they can they can provide that would help all the professors with testing and how to maximize exam integrity look even in the classroom.” - Peter

### Teaching approach

Many participants discussed how their teaching approach changed in the transition from in-person to online classes. The following codes are part of this theme:

* Faculty used PPT: 9 out of 23 faculty
* Faculty recorded classes: 9 out of 23 faculty
* Use of Technology in the Classroom: 9 out of 23 faculty
* Faculty changed teaching approach in online class: 8 out of 23 faculty
* Faculty lectured entire time: 8 out of 23 faculty
* Faculty assigned project: 7 out of 23 faculty
* Faculty run office hours: 6 out of 23 faculty
* Internet or Connection issues: 5 out of 23 faculty
* Faculty used active learning: 4 out of 23 faculty
* Faculty taught synchronously: 17 out of 23 faculty
* Faculty taught asynchronously: 3 out of 23 faculty
* Students were highly engaged during class: 6 out of 23 faculty

In many cases, faculty changed their teaching approach “a whole hundred and 80 degree” (Dolly) as they recognize that the online format requires different strategies to keep students’ engaged. Some faculty report decreasing the pace of the class and the quantity of material covered, while other faculty were able to cover a bit more material.

“I had to, I had to make changes to the material to make it more to work better with the, you know, online delivery. And and also, I had to, you know, learn, of course, the tools, getting the ins and outs of zoom. I was only, you know, casually familiar with zoom before that. So, I didn't know the, you know, screen sharing and breakout rooms and and all the other good stuff that that we need to know for a good teaching experience. And and then in terms of some of the deliverables, the assignments, I had to make some changes to to make sure that they are compatible with online and the biggest challenge was with one of our hardware labs, which required, you know, holding things in your hand and doing things.” – Bill

The majority of the interviewed faculty taught synchronously with the same schedule as during in person teaching, used Power Point slide to present their lesson plan and recorded their lecture and made it available to students, and had office hours, see 2. A large number of faculty lectured for the entire class time, finding it difficult to incorporate active learning activities to keep students engaged.

“That remained mostly unchanged with the exception of not having, probably if I had to estimate, 20 to 25% of the time in the, of the lecture before people working through a problem in like a small group or something like that, which really I didn't judge is feasible with remote lecture via zoom and that was discontinued when classes went remote” – Cristobal.

A few faculty, see 2, were instead able to incorporate active learning into their online classes, taking advantage of the digital environment they were suddenly teaching into

“Later, what I did is beforehand the students need which readings, they needed to cover, so I enforce the concept with announcements, say, hey, heads up, we're covering this material this week, make sure you're ready, we will do exercises first and so, implement the flipped learning Idea and concept right and approach. […] The students beforehand they will know or they knew what things they will be working on. And right at the beginning of the class. I'm just giving them a quick introduction […] Then ask some questions to engage and to get an understanding of what the general where the class was in terms of their understanding to the concept […] I did use polls. […] So, asking those questions that will get a baseline for the class and understanding. […] Then I'll give them exercises without, without covering the material myself like because the expectation was you already learned this material. So, now you go and try it out. […] So, then I'll jump. Probably for about 45 minutes, at the beginning of the class I will separate the class into groups, then I'll be joining each of the rooms in a rotating manner, and I'll go and you know ask questions and see if they were struggling with the material. […] I will create another poll and run a comparison between this is where you started in class.” - Wilfred

Table 2. Teaching method codes

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Participant** | **Taught synchronously** | **Assigned project** | **Recorded class** | **Lectured entire time** | **Run office hour** | **Used ppt** | **Used active learning** | **Students highly engaged** |
| Arthur | **X** |  |  | **X** |  |  |  |  |
| Bertha | **X** | **X** |  |  |  |  | **X** | **X** |
| Bill |  |  |  |  |  |  |  |  |
| Cristobal | **X** |  | **X** | **X** |  | **X** |  |  |
| Dolly | **X** |  |  |  | **X** |  | **X** | **X** |
| Edouard |  | **X** |  |  |  |  |  |  |
| Fred | **X** |  |  |  |  |  |  | **X** |
| Gonzalo | **X** |  | **X** | **X** |  | **X** |  | **X** |
| Hanna |  |  |  |  |  |  |  |  |
| Henri | **X** |  |  |  |  |  |  |  |
| Isaia | **X** |  | **X** | **X** | **X** | **X** |  |  |
| Josephine | **X** |  |  |  |  |  | **X** |  |
| Kyle | **X** |  | **X** |  | **X** | **X** |  |  |
| Larry | **X** |  | **X** | **X** |  | **X** |  |  |
| Laura | **X** |  | **X** | **X** |  | **X** |  |  |
| Marco |  | **X** |  |  | **X** |  |  |  |
| Nicholas | **X** |  | **X** | **X** |  | **X** |  | **X** |
| Omar | **X** | **X** | **X** | **X** |  | **X** |  |  |
| Paulette | **X** |  |  |  |  |  |  |  |
| Peter | **X** | **X** |  |  | **X** |  |  |  |
| Vicky |  | **X** |  |  |  |  |  |  |
| Victor |  | **X** |  |  | **X** |  |  |  |
| Wilfred | **X** |  | **X** |  |  | **X** | **X** | **X** |

As shown in 2, some of the faculty found that students were highly engaged during their online classes, and this is specially true for faculty that experimented with active learning.

### Hands-on laboratories

In the College of Engineering at SJSU a number of classes have hands-on activities and laboratories set into the schedule. Transitioning laboratories activities in an online format has been particularly challenging, given the sudden transition and the inability to provide hardware material to the students because of campus closure and safety concerns: “the only real difficulty was with the hands-on labs”- Henri.

Faculty used different strategies to conduct their laboratory activities, like using “a simulator” (Larry), and conducting demonstrations.

“So, what I did is I personally went to the lab, took the data for them, took images of the setup, and went through my normal in text format, my normal spiel that I would give to them at the beginning of the lab. you know, generally what we're doing what we're looking for, etc. And basically handed the photos and the data off to them for them to process as they normally would and write a report on it. […] As they normally would, if it weren't in person thing. So, really, the part that got lost in that was they weren't physically there to see the setup themselves or actually run the equipment. And ideally I would have liked to actually record the entire process of the lab. But because it was basically required that I'd be the only one in the lab for that. That really wasn't a practical possibility with the ad hoc nature of the online transition.” - Cristobal

Some faculty discuss about their frustration on the inability to conduct labs in a safe environment “What I'm saying is, is if my karate studio can open up with social distancing, why can't, I mean my lab would have like one person per area and if you wear the mask and you do all this business. It's not like Texas reopening with like no rules. No, we're, we’re in a lab. I mean, the people who run labs” - Edouard

### Preparing for the Fall semester

Many faculty (11 out of 23) discussed their plans for Fall 2020, which will be majorly online. They plan to make changes after the lessons learnt in Spring 2020 both in delivering the class material and in their teaching approach as well as how to conduct labs.

“I am actually I'm going to be teaching the same class and I am actually making fairly extensive changes to the way it's being taught and part of that is based, it's it's it's because of the experiences in the spring. I'm gonna I'm making it a lot more interactive. So, students would not have, you know, those who who want to have you know the the opportunity to to take part in in in even during the lectures in a more interactive way. And then the lab part that I mentioned earlier, the hardware lab revamping that so instead of building it ourselves, we identified I've identified a piece of hardware that they could order on the web, which is just as cheap, if not cheaper. So, I think that would be that would also be a little, should run a little, more smoothly.” - Bill

Some faculty plan to move to asynchronous teaching, so that they can prepare their class material and videos beforehand, and then use the class sessions to engage students in problem solving activities, answer questions or meet in small groups to review projects.

“But as far as, you know, fall is concerned, I'm going to make asynchronous lectures, make it available at least a week in advance and then use the sessions more for you know, you know, a lot of problem solving” - Arthur

“Okay, I'm going to teach online, but now it will be asynchronous. So, what I'm doing now I'm spending all the time to do some lectures and it will be posted on YouTube. And then I download it to Canvas and then I'm going to make, make some meetings with them because this is a design class. So, I have to see how do they do? So, It will be regular meetings with each group. So, I, I will have next semester 12 groups. So, that will be 12 meetings for these groups.” - Omar

Faculty plan to incorporate more active learning activities, such as synchronous group activities using breakout rooms and “to really do more to encourage discussion amongst them, and with me.” (Gonzalo)

In terms of testing and assessment, faculty plan to be more clear with the students from the beginning of the semester, in particular if they plan to use video proctoring.

References

[1] “Tropical Cyclone Names.” [Online]. Available: https://www.nhc.noaa.gov/aboutnames.shtml. [Accessed: 14-Nov-2020].