

**TekKru**

**Team Captain:** Catalina Norris

Jacob Mason

Michael Gonzales

Samantha Tran

Yalda Zia

CSUF Marketing 379 Final Report

11/27/2020

Professor Ronald Imus

## **Executive Summary**

As a marketing firm TekKru conducted a research study on California State University Fullerton students to see how college students feel about the transition to technology-based learning. Since in-person classes are temporarily canceled due to the world crisis a lot of colleges and universities have begun to transition their classes to fully online and remote. Therefore, TekKru wanted to learn how students are feeling with the increased use of technology in their education and how or if it has affected their mental health, stress, or even their grades. We are conducting this research to:

- Understand the impact the transition to online-based learning has on student engagement.
- Understand the impact online-based learning has on mental health and judge whether or not it has caused more stress or has relieved the pressures of college education.
- Understand how CSUF students feel about the impact of introducing the new technology way of learning and the way they are adjusting to this

In order to understand our objectives, we gathered information through both quantitative and qualitative methodology. To get a general understanding of how the majority of students feel we sent out survey questionnaires to California State University, Fullerton students. We also conducted in-depth interviews with students and have them elaborate on why they feel a certain way towards technology-based learning. From our survey and interviews we found:

- Among all majors, there was an average increase in stress levels
- On average there was a slight decrease in grades and exam scores but overall little to no impact
- On average students expressed that technology-based learning had substantially decreased their overall class engagement
- Students feel less obligated to participate in online zoom lectures because of the options to mute and turn off their camera
- There are students who feel uncomfortable and who are not used to using proctored technology for exams
- Students feel less connected to their classmates and peers due to the lack of classroom setting

With the information we gathered, we have come up with strategies and recommendations that can be implemented and applied to the situation. Here we have listed the top recommendations we feel will help:

- Creating an interactive, online classroom
- Hold workshops and tutorials to guide professors and students on how to use technology-based learning

- Leniency on due dates and exam dates
- Improve communication between professors and students
- Create smaller online class sizes
- Provide multiple and different learning styles for students that will help them
- Unproctor exams or proctor exams via zoom to not invade students' privacy

In conclusion, we believe that there is more progress to be done with creating a better experience in technology-based learning for students. We recommend guiding and helping both students and professors adjust to technology-based learning so that students can have a good experience with their education, even though it is not the same as it once was. We want students to have a great experience with technology-based learning not just to increase their exam scores or grade point average, but to also help maintain their stress levels and mental health. By applying the recommendations suggested we can create a better experience in technology-based learning.

## **Table of Contents**

Introduction and Marketing Problem	4
Overview	4
Research Objectives	4
Methodology	4
Research Sample	5
Findings	6
Quantitative Research	7
Qualitative Research	11
Recommendations	12
Survey Questionnaire	14

## **Introduction and Marketing Problem**

### **Overview**

TekKru conducted a qualitative survey amongst undergraduate California State University, Fullerton students using an electronic survey. The survey we distributed was used to gain a better understanding of where CSUF students stand with the recent transition to online learning. The survey came back with results from 99 qualified participants. The TekKru research team is interested in developing a deeper knowledge of student engagement and learning ability amongst students regarding the use of technology. We believe that it is crucial for students to

Following the completion of the survey, we collected the data and analyzed it to see how and if the change to online learning affected students. Upon our observation, we found many important factors within the results we had received. Since a significant amount of students haven't had a lot of experience with various online learning platforms, the results from our questionnaire will allow us to decipher which tactics would serve the most use for students. With these results we will be able to make recommendations to the administration, that will better assist students in making them feel more confident and comfortable with online learning.

### **Research Objectives**

The objective of this research is to understand the feelings that CSUF students have towards the recent change to online learning. This research will seek to:

1. Understand the impact the transition to online-based learning has on student engagement.
2. Understand the impact online-based learning has on mental health and judge whether or not it has caused more stress or has relieved the pressures of college education.
3. Understand how CSUF students feel about the impact of introducing the new technology way of learning and the way they are adjusting to this

### **Methodology**

- Qualitative Research: In-depth interviews; applies to objectives #1, #2, #3
- Quantitative Research: Survey Questionnaire; applies to objectives #1, #2, #3

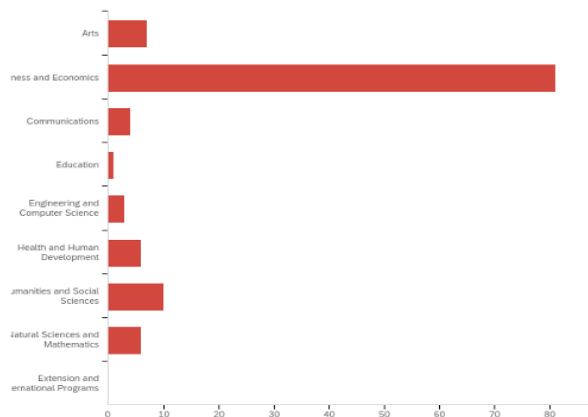
We chose to mainly focus on the quantitative research methodology to ask questions about college students' personal experience with technology-based learning. The survey asks a representative sample size of CSUF students that represent the population of college students, how they are adjusting to the new way of learning and how it may be affecting their study habits. We used the survey to get a general idea of how students are feeling during this time where there

is a heavy amount of technology-based learning. We wanted to use the survey to gauge their stress levels, mental health, work ethic, and grades before versus after the transition to long term tech-based learning. After receiving feedback and answers from the students and getting to know how they feel about technology-based learning we conducted qualitative research for further understanding. However, qualitative research was not the main research method we are using because we must consider the likely chance of skewed results or possible response biases. As a team, we conducted a few in-depth interviews to further understand why students feel the way they do about the new technology-based learning. We made sure that we addressed and answered all three of our objectives using the quantitative research, which was the responses we received on the survey questionnaire as well as the qualitative research, which was the in-depth interviews. We expected to have elaborated on both the survey responses and the interviews about what we learned about students' mental health, stress levels, and also how their grades may have or have not changed.

## **Research Sample**

We were able to gather results from 128 individuals who participated in our questionnaire. Of those 128 participants, 99 successfully represented our target sample population of undergraduate students who are currently enrolled in online classes at California State University, Fullerton. 53% of those surveyed stated that this is their first time participating in technology-based learning.

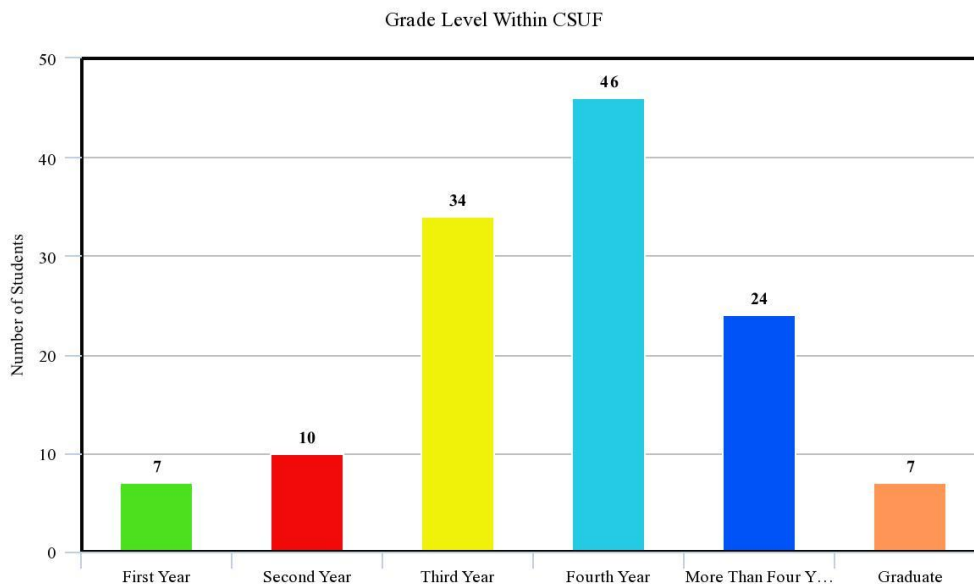
The responses for our quantitative survey consisted of a sample that was 61.72% female and 35.94% male, with 2.34% of our respondents preferring to not specify a gender. Our results were heavily skewed towards third and fourth-year Business and Economic students. 62.5% were either third or fourth-year while 68.64% were Business and Economic majors. The remaining majors were all relatively evenly represented. About 80% of our sample population is currently working while being a student.



## **Findings**

We were able to uncover a significant amount of data and analytics from the results of our distributed questionnaire. As we got into the details of the analytical reports and compared results for each question, a few answers had seemed to be more prevailing than others. For instance, the fourth question in the survey asks the respondent what year they are currently standing within the university, the most common answer consisted of “fourth-year” standing - as depicted in the graph below. We can see a significant increase in “fourth-year” students, compared to the remaining grade levels. We move on to the following question, in which the respondents’ answer impacts the level and amount of difficulties or stress experienced throughout the complete transition to online learning platforms. The fifth question asks what major or program the student is currently enrolled in. A staggering 68.84% of respondents selected ‘Business and Economics’ as their answer, whilst only 3.39% selected ‘Communications’ as their field of study. Each major has its own unique amount of coursework needed in order to fulfill all the necessary requirements for that specific field of study. The level of ease into a fully remote learning platform depends significantly on the amount of coursework required for a field of study.

### **Grade Level within California State University, Fullerton**

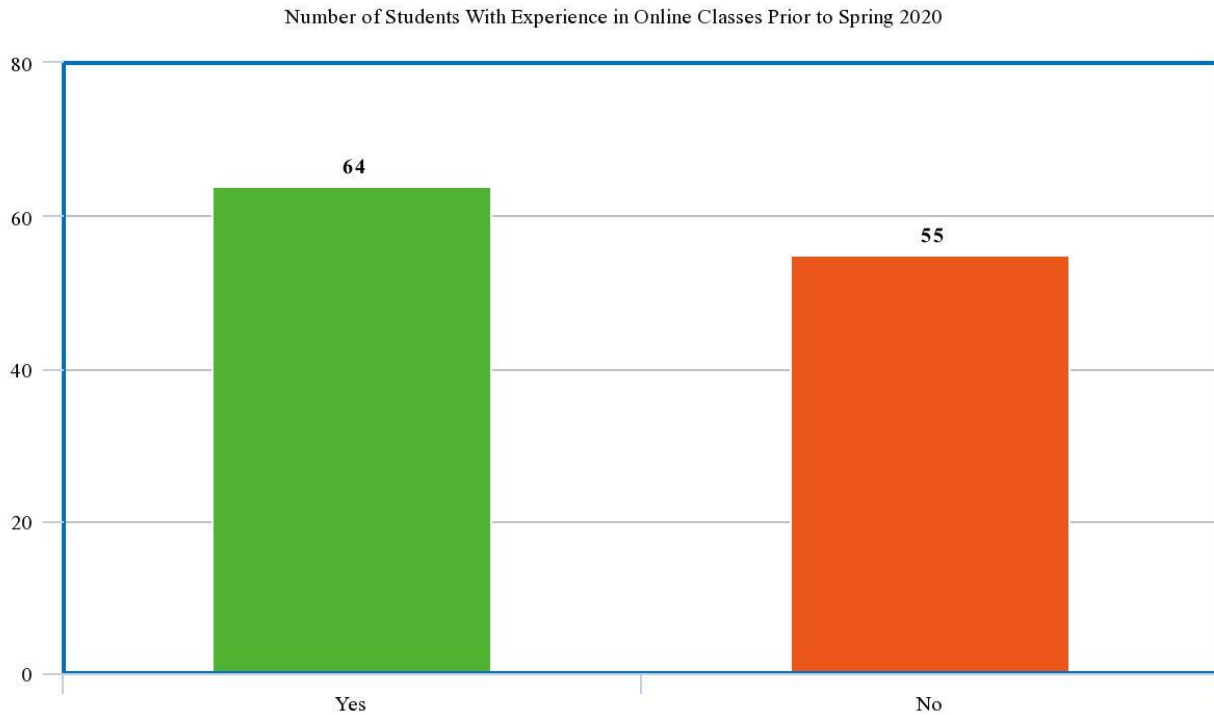


For instance, STEM (Science, Technology, Engineering and Math) majors are typically composed of complex coursework with an abundant amount of assignments. For such complex areas of study, it may be difficult for some students to adjust to different softwares during the whole transition.

Quite an alarming result came from one of the questions asked in the questionnaire, which was, “Is this your first time doing online learning, not counting the Spring 2020 semester?”. Looking

back to the analytical report of the qualtrics, a significant number of students chose “No” as their answer.

### **Number of Students With Experience in Online Classes Prior to Spring 2020**



With such quantitative results, it is quite surprising how a majority of the respondents haven't taken part in an online class prior to the spring 2020 semester. Within this new generation of technological advancements, we expected the number to be much higher than anticipated. In addition, from the results of this question alone, it is now more crucial than ever for students to learn how to utilize such online learning platforms so that the complete transition goes smoothly.

### **Quantitative Research**

For the quantitative research methodology, cross-tabulation between survey participant's respective majors and respective stress levels pre and post-pandemic along with another cross-tabulation of participant's respective majors and overall effect on GPA, exam scores, homework engagement, and group engagement. For each cross-tabulation, there was a specific filter added to limit the error for the outcomes. Since these questions were asked at different stages of the survey, some participants answered the major related question but did not complete the survey to reach the stress level and overall affect questions. The filters added were of the top 4 selected majors with the addition of the final survey question response number being added to



ensure the answers received in the major question, stress level, and overall effect questions were pulled from those who submitted the survey.

Cross Tabulation of Majors and Stress Levels

		Q5: What is your current Major?				
		Total	Arts	Bus. & Econ	Humn & Soc. Sci	Nat. Sci. & Math
Stress Level Pre-Pandemic and Post Pandemic	Avg. (SL P-P)	51.9	55.8	50.7	58.4	52.8
	Avg. (SL C)	73.6	58.8	74.7	82.9	61.3
	Median (SL P-P)	50.0	65.0	50.0	57.0	53.5
	Median (SL-C)	79.0	62.0	80.0	86.5	70.5
	Std. Dev (SL P-P)	21.2	33.7	19.7	17.0	32.8
	Std. Dev (SL C)	21.4	32.0	20.4	9.4	27.7

For the above table, 104 responses were used to notate the total averages, medians, and standard deviations along with the respective major’s averages, medians and standard deviations. Business and Economics (Bus. & Econ) had the highest response rate from the survey of 81 total responses followed by Humanities and Social Sciences (Humn & Soc. Sci), Art, and Natural Sciences and Mathematics (Nat. Sci & Math) totaling 10, 7, and 6 respectively.

Business and Economics students feel the overall stress level from pre-pandemic and the switch to online learning has increased in the current learning state by roughly 30%. This is similar to Humanities and Social Sciences where there has been an increase of 25% from pre-pandemic stress levels to current stress levels. All four majors have felt an increase in stress levels, but only Business and Economics along with Humanities and Social Sciences students have felt a substantial increase in stress levels. Arts majors and Natural Sciences and Mathematics majors have felt a slight increase in stress levels when comparing stress levels from pre-pandemic and current.

It is important to note that of those who took the survey, 62.5% of all responses were third or fourth-year Business and Economics students. The members of Tekkru fall into the category of fourth-year Business and Economics students and, with personal experiences, there has been an increase in workload. This increase in workload could be an important factor in why Business and Economics students have felt a near 30% increase in stress levels from pre-pandemic to current.

Cross Tabulation of Majors and Affect on Overall Grades and Engagement

		Q5: What is your current Major?				
		Total	Arts	Bus. & Econ	Humn & Soc. Sci	Nat. Sci. & Math
Affect on Overall Grades and Engagement	Sub Dec (Overall GPA)	15.0	1.0	13.0	0.0	1.0
	Sl. Dec (Overall GPA)	27.0	0.0	21.0	3.0	3.0
	LtNI (Overall GPA)	22.0	1.0	18.0	3.0	0.0
	Sl Inc (Overall GPA)	16.0	3.0	9.0	2.0	2.0
	Sub Inc (Overall GPA)	6.0	0.0	6.0	0.0	0.0
	Sub Dec (Exam scores)	19.0	0.0	16.0	1.0	2.0
	Sl Dec (Exam scores)	27.0	1.0	22.0	4.0	0.0
	LtNI (Exam scores)	19.0	2.0	14.0	1.0	2.0
	Sl Inc (Exam scores)	17.0	2.0	11.0	2.0	2.0
	Sub Inc (Exam scores)	4.0	0.0	4.0	0.0	0.0
	Sub Dec (Hw eng)	28.0	1.0	20.0	5.0	2.0
	Sl Dec (Hw eng)	25.0	1.0	21.0	2.0	1.0
	LtNI (Hw eng)	16.0	1.0	14.0	0.0	1.0
	Sl Inc (Hw eng)	12.0	2.0	8.0	0.0	2.0
	Sub In (Hw eng)	5.0	0.0	4.0	1.0	0.0
	Sub Dec (Group eng)	32.0	0.0	23.0	5.0	4.0
	Sl Dec (Group eng)	23.0	1.0	18.0	3.0	1.0
LtNI (Group eng)	12.0	2.0	10.0	0.0	0.0	
Sl Inc (Group eng)	11.0	1.0	9.0	0.0	1.0	
Sub Inc (Group eng)	8.0	1.0	7.0	0.0	0.0	

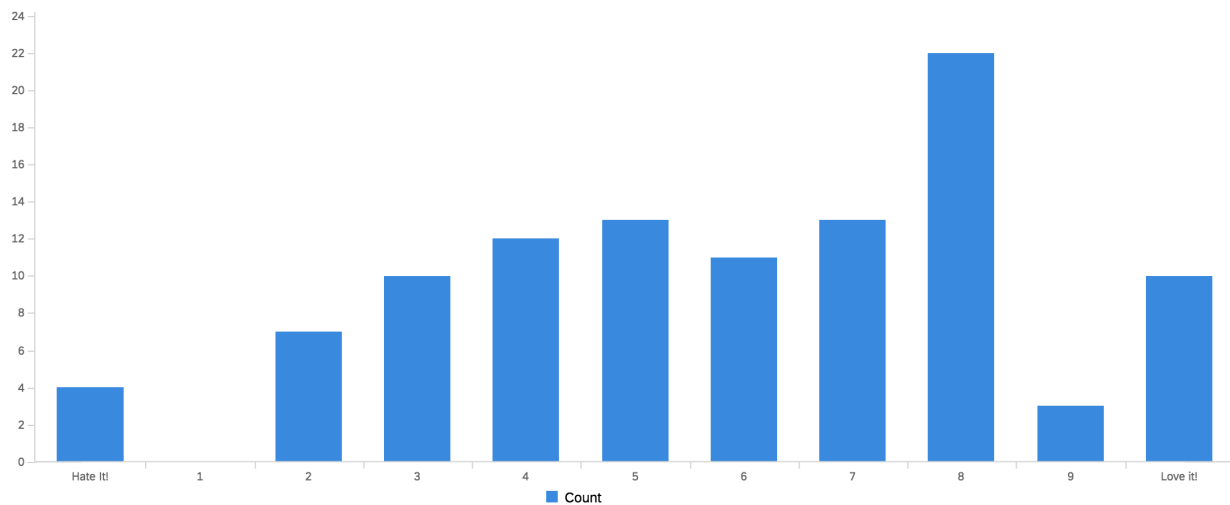
The above table shows the relationship between survey participant's majors and the overall effect of the transition to online learning towards grades and engagement. There were four categories with five options to choose from. The four categories were: Overall GPA, Exam Scores, Homework Engagement (Hw eng), and Group Engagement (Group eng).. The five selections within each category were: Substantial Decrease (Sub Dec), Slight Decrease (Sl Dec), Little to No Impact (LtNI), Slight Increase (Sl Inc), and Substantial Increase (Sub Inc). A participant was asked to answer by choosing either sub dec, sl dec, ltni, sl inc, or sub inc per category based on their respective results or opinions on the sub-questions.

Once again, the same 104 participants were used to notate the totals for each subcategory and overall question answer. Again, Business and Economics (Bus. & Econ). Humanities and Social Sciences (Humn & Soc Sci), Art, and Natural Sciences and Mathematics (Nat. Sci & Math) were used as the four highest response totals. Generally, each respective major felt there has been a slight to substantial decrease in Overall GPA, Exam Scores, Homework Engagement, and Group

Engagement with the exception of the Arts major which saw an even spread of answers among all 5 subcategories.

Overall, Business and Economics students feel group engagement has substantially decreased this semester compared to previous semesters. This could be due to a number of reasons, one most notably, being the lack of face-to-face interaction and the forceful switch to zoom or other online meeting applications. Some respondents felt there had been a slight to substantial increase in group involvement which could be due to the same aforementioned reasons. It seems to be a personal preference, but the majority believe there has been a change in how group interaction is achieved during the switch to online learning.

Preference Towards Online Homework



The chart above shows the participant's preference towards online homework. Following this question, there was a follow-up question asking why they had this preference towards online homework. For the respective counts for "Hate It!", 1, 2, 3, 4, 5, 6, 7, 8, 9, and "Love it!" are: 4, 0, 7, 10, 12, 13, 11, 13, 22, 3, 10. The mean for the chart is 6.88, or just about over the middle point of very little to no preference for online homework. This means, of the 104 answers on the preference towards online homework, there is minimal increase in preference towards online homework. As seen in the chart though, 22 participants answered #8, which was two selections shy of "Love it!". #8 is roughly characterized as "prefer online homework" in the context of this question.

The overall preference towards online homework is a slight liking towards it, but it generally spread evenly among the preference scale. This assumption is backed up by the qualitative question that directly followed this question which asked why they felt this way towards online homework. The general reasoning towards why the mean was 6.88, or a very slight preference towards online homework is seen in a vast majority of written responses: online homework was

previously integrated into college education prior to the switch to strictly online learning. The responses matched the characteristics of the chart with responses slightly varying off the tone of “it is easier to manage time and allows us to operate on our time in a more comfortable way.”

## **Qualitative Research**

The qualitative research we performed was an interview with two California State University Fullerton students. To respect the students’ privacy we will refer to them in this paper as Student A and student B. Before learning more about how Student A feels about technology-based learning we started off asking for their basic information. Student A is a female fourth-year majoring in business management and is set to graduate in the summer of 2021 and is currently unemployed. Student B is a male fourth-year majoring in business with a concentration in finance and is set to graduate in the spring of 2021 and is currently working 20 hours a week.

After they provided us with the basic information we asked them how transitioning to fully online and remote learning has been for them and if they were familiar with online learning. Both students said they have taken at least 1 or 2 online courses before but student A does not like having all of her classes online whereas student B thinks it makes learning more convenient for him. Student B shared with us that most of his professors provide pre-recorded lectures so therefore he can watch and take notes on his own time when he does not have work.

Since we got a base idea of how they both feel towards online classes we went more in-depth and asked them how they felt about doing online assignments as well as taking proctored exams. Student A says that doing homework online is not new to her since that is what she did when taking in-person classes, so it is something she is familiar with and does not mind. However, the online proctored exams are a bit of an issue for student A. Student A feels that proctored exams are a great way for professors to see who is cheating or isn’t but she believes that the software is too strict and it makes her feel like anything she does will cause the software to flag her for cheating when she isn’t. As for student B, he has the same feelings toward the online homework as student A but does not like the proctored exams at all. Student B feels that it is the most invasive act on the privacy of students because it requires them to show their personal identification, turn on a camera and microphone, and also scan their room. He does not mind taking exams online but he would rather take the exam in a classroom rather than be recorded. Finally, we asked both students how their grades are this semester, while it is fully remote and online, versus the last semester when they had in-person classes. Student A feels that her grade point average had slightly decreased whereas student B feels like there was no impact to his grade because of his experience taking online classes before. Student A also added that she feels the reason why her grades are not as great as it was before the transition to online is because she is more attentive and engaging in a classroom setting. Student A explained to us that at home there are so many distractions like TV, games, her pets, and the fact that laying down on her bed is really tempting. Unlike student B, student A has live lectures but since her professors do not

require cameras or microphones on she feels like she can get easily distracted without being held accountable.

Overall, it seems that both students have some negative feelings towards the transition to online learning. Although the negative feelings are not the same on certain points we did learn that the negative feelings they have are towards the proctored exams and the live lectures. It seems that unproctored exams are not favorable amongst students because it invades their privacy and the live exams makes students less attentive to the lectures compared to when they were in a classroom setting.

## **Recommendations**

After concluding the findings from our questionnaire and interviews, we have listed various recommendations below that will help improve online learning for CSUF students.

### **1. Creating an Interactive Classroom**

Creating an online classroom where students have the opportunity to ask and respond to questions will allow them to grasp the material better. Question 16 of our questionnaire asked students to, "... explain the difficulties and the effects on your education experience," of the 99 respondents, the majority responded stating they were easily distracted and not engaged in the zoom meetings. By making classes an interactive based learning experience, it will keep them engaged and make it necessary for them to pay attention in classes. With the interactive classroom, professors can create breakout rooms with small groups of people, giving them the opportunity to work together to complete problems. This change will show improvement on every individual's work, exams and overall grades. Not only will this help their grades, but it will also give them connections to other students who may have the same issues and questions as they do.

### **2. Professor Presence**

As a professor, being easily approachable helps students feel comfortable and confident in reaching out. Many students fear their professor's judgment and lack of assistance that they don't want to ask for help. If professors made it more clear from the beginning of the semester that they are always there for questions it would help students. Within our questionnaire, we had several questions along the lines of why students were struggling with online learning, many of which said their professors don't help them. Having to make the switch to online learning for students already adds a ton of stress on each person. Students often feel like they have to teach themselves because of the lack of communication from Professors. Making it mandatory for professors to have specific meeting hours daily for students, will help them feel as if they can ask questions and not fall behind because they are too afraid to ask.

### **3. Leniency on time/ rescheduling of exams**

Another common response we had for why students were struggling with online learning is that they are busy working 20+ hours a week, all while trying to teach themselves and complete homework. Professors should be more understanding when students ask for rescheduling of exams or even late homework assignments. It is hard enough working during these crazy times, being a little more lenient on schoolwork would take the stress off of students.

### **4. Unproctored Exams or Proctor exams via zoom**

Many students have revealed that being using proctorio during their exams feels like a huge invasion of their privacy. It is because proctorio asks for personal identification, for cameras and microphones to be on, and for students to scan their room. Not only that but proctorio adds more to students' test anxiety and stress because they can be flagged for staring around in their own room or even be flagged for dropping a water bottle. Because proctorio heightens their stress and anxiety this causes students to perform worse compared to how they did when taking exams in person. We recommend that professors or the school find another way to proctor exams because many students feel uncomfortable using proctorio. Or professors can proctor exams by having students take their exams during a zoom meeting with their cameras on. The difference with zoom and proctorio cameras is that proctorio will record the student the entire time whereas zoom will not record without their permission. Therefore, professors can opt to use zoom meetings as a way to keep track of students during exams. This also helps when students may have questions during exams and can privately message the professor in zoom rather than exiting proctorio to send an email to the professor and getting flagged by proctorio for exiting the exam browser. Unproctored exams or proctoring through zoom can help students feel more calm and comfortable taking online exams, and with less pressure off their shoulders, this may help them improve their scores.

### **5. Variety of learning skills: detail, examples, words, homework**

Creating a learning experience where the professor is flexible in the way that they teach. Being able to portray the learning material in a way that students find most helpful to them, allowing improvement in engagement and grasping of material. Some students learn best by words, others learn by examples. If a professor were to incorporate these different techniques into their material it would help increase students' grades.

### **6. Smaller class sizes**

It is common for in-person classes at colleges and universities to have a class size of 35-45 students. With online classes, it can be very overwhelming to have a large number of students to lecture. Especially when multiple students are talking over one another during video chat, or even talking over one another over text chat. It is even harder for

professors to take notice of students who have important questions because they can not survey the room for raised hands in zoom meetings like they were able to in actual classrooms. This also causes students to hold themselves back from asking questions or making commentary during these online lectures. We suggest that online class sessions should be smaller so that students can be more engaged during lectures. It can also help students feel less afraid of reaching out to professors for help. Smaller class sizes may also help have professors and the students build relationships and connections with one another.

#### **7. Workshops/tutorials for students and professors on how to navigate technology-based learning/teaching**

Many students and professors are used to attending or teaching in-person class sessions and are unfamiliar with navigating online coursework and educational platforms. It makes technology-based learning very difficult when both the professor and student are having trouble using it. Some professors have trouble posting documents or lectures which is troubling for students to complete and turn in assignments. Not only that but it is the same for students, some students have trouble accessing online lectures, textbooks and homework because of the lack of access to resources. They also have trouble with technology-based learning because of their lack of experience using learning platforms like Canvas and Titanium. Therefore, we are suggesting that colleges and universities begin holding workshops or tutorials for both professors and students on how to use all the different technology-based learning platforms. There can be workshops to show professors ways they can adapt to technology-based learning and how it can create as much engagement as they would normally get when they were teaching in-person classes. As for students, they can receive online video tutorials to tour the technology-based learning platforms and have the tutorials guide them throughout the website. The schools or these platforms can also provide extra videos on how to access textbooks and online assignments as well. With workshops and tutorials for both professors and students, this can help increase class engagement and decrease the chances of students getting low

### **Survey Questionnaire**

Q1. Survey Introduction: Hi! Thank you for taking the time to take our survey! We are a student marketing research group called Tekkru trying to learn more about how students think and feel about online learning. We would like to hear all of your honest thoughts and answers on our research topic so we can learn and understand more about online learning. This survey should take about 10-15 minutes and we thank you for your time and participation!

Start of Block: Screener Questions

Q2. Are you currently a student at California State University, Fullerton?

- Yes
- No

Skip to end of survey: If you are not currently a student at California State University, Fullerton.

Q3. What gender do you identify as?

- Male
- Female
- Other
- Prefer not to answer

Q4. What year are you in at California State University, Fullerton?

- First-year
- Second-year
- Third-year
- Fourth-year
- More than four years
- Graduate student

Skip to end of survey: If graduate student is selected

Q5. What is your current major?

- Arts
- Business and Economics
- Communications
- Education
- Engineering and computer science
- Health and Human Development
- Humanities and Social Science
- Natural Sciences and Mathematics
- Extension and International Programs

Q6. Are you working while being a student?

- Yes
- No

Skip to Q8: If no is selected

Q7. How many hours per week do you work on average?

Q8. Is this your first time doing online learning, not counting Spring 2020 semester?

- Yes



No

Skip to Q10: If yes is selected

Q9. Do you believe there has been a noticeable difference in this semester in terms of learning ability compared to Pre-Spring 2020 semesters?

	strongly disagree	disagree	No Difference	agree	strongly agree
Learning Difference	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10. How has the transition to online learning affected your grades and engagement?

	Substantial Decrease	Slight Decrease	Little to No Impact	Slight increase	Substantial Increase
Overall GPA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exam scores	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Homework engagement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Group engagement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11. How are your classes formatted for online learning?

- Live lectures
- Prerecorded lectures
- No lecture just independent work

Q12. Have you had any experience with a proctored online exam? If yes, please explain.

- Yes \_\_\_\_\_
- No

Skip to Q13: If no is selected

Q13. What is your preference towards online homework?

Hate it!	0	1	2	3	4	5	6	7	8	9	10	Love it!
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14. Why do you feel this way towards online homework?

---

Q15. Do you experience any difficulties with online learning?

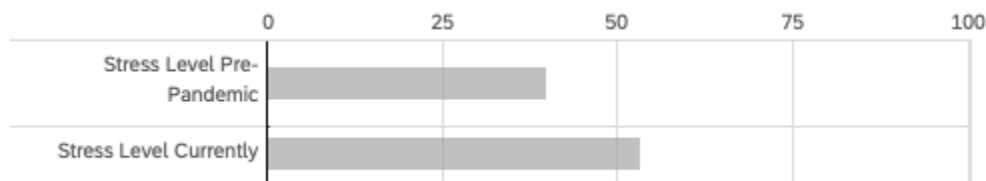
- Yes
- No

Skip to Q17: If no is selected

Q16. Please explain the difficulties and the effects on your education experience.

---

Q17. Think back to Fall 2019 semester, previous semesters, and pre-pandemic. How would you rate your stress level in regards to college responsibilities at that time? How would you rate your stress level in regards to college responsibilities from March 2020 up to present?



Q18. Please explain why you feel there has or has not been a change in stress levels for college responsibilities during the transition to online learning.

---

Q19. How has the overall transition and experience to online learning been?

- Extremely positive
- Moderately positive
- Slightly positive
- Neutral
- Slightly negative
- Moderately negative
- Extremely negative

Q20. Why do you feel this way about the overall transition and experience to online learning?

---

Q21. Please choose who sent the survey to you. Thank you!

- Samantha Tran
- Jacob Mason
- Michael Gonzales
- Catalina Norris
- Yalda Zia