

# Student Experiences after the move to fully online instruction ! case study of one large public institution

Maria Chierichetti  
Department of Aerospace Engineering  
San José State University  
San José, CA, USA  
maria.chierichetti@sjsu.edu

Patricia A. Yacobi  
Department of Aviation and Technology  
San José State University  
San José, CA, USA  
patricia.yacobi@sjsu.edu

**Abstract**— In Spring 2020 and Fall 2020, the College of Engineering at San José State University conducted a comprehensive analysis of the impact of COVID-19 on student learning, student achievement and faculty issues. The first part of the study (as designed to survey all Spring 2020 students and faculty in the San José State University College of Engineering) about their experiences after the move to 100% online instruction in March 2020. The survey distributed in Spring 2020 (as followed) by a second survey in Fall 2020 to see how students and faculty adapted to the new online environment. A high number of international and Asian American students responded to the survey. Approximately 50% of all students responding (the first generation students) at the onset of the pandemic, the students reported feeling worse or much worse in several areas including time management, ability to socialize (with fellow students), ability to socialize (with friends), and their overall psychological well-being. 25% of students reported either a moderate or a great deal of stress related to the shelter in place. This finding is troubling since it indicates the mental well-being of the students. Overall, San José State University College of Engineering students (as pessimistic) about the next few months, Fall 2020, and their long term plans. In Fall 2020, students reported similar mental health struggles of increased stress and anxiety and decreased motivation. In both surveys, we included 3 questions about the student experience in their classes. Students gave some suggestions on how online instruction could be improved. The top six categories of suggestions were 45% record lectures and post online, 42% use active learning in online classes, 41% utilize better online teaching methods, 40% use Canvas and 70% more effectively, 48%

studor heerin13 (8) - 6.6634.3346 (\*) - 6.66667 ( )2 oey9.3335(e)4(t6.6667 (7 T d2[ (h)9.  
t27507568133.2546e ( ( 434962t.84) - 6942756C.16.5474d23333.22)r3298 ( 7426)o452.F

analyzed the early results of a survey sent to students at multiple institutions about the impact of COVID-19 on their experiences. This survey was initiated during the Spring 2020 semester and

The responses to the open-ended questions were analyzed

9orse or much 9orse a#out the future. San &os' State En"ineerin" students had si"nificant 9orries in several areas includin" their pro"ress to de"ree( a#ility to "et internships( and doin" 9ell in their classes 9hich 9ere no9 online ;see =i"ure @<.

#### D. Access to Technology

Students that responded to the survey have access to computers or laptops and enou"h Internet access for doin" class9or/ online. Do9ever( a hi"h num#er of students do not have access to a printer( scanner( a physical space

available ;7K< for office hours after the shelter in place. !  
small number of students indicated that faculty were only  
available a little ;7AK< or not at all ;@.AK< for office hours.

Well-being" ;HHK<. Both respect to Spring 2020( students improved their time management skills and their ability to socialize with fellow students( but their psychological well-being" did not improve.

Be followed this question with more directed questions about student stress. 1AK of students reported either a moderate or a "reat deal of stress related to the shelter in place( which is a

experiences or in-person project classes in fall 2020. Most of these students agree that this on-campus activities were effective.

#. Moving forward

Be also asked students to reflect about the advantages of combining face-to-face and online instruction. Students felt that this combination can provide more face-to-face

1! .FE16.20E-B!R!026! !0!FRSIS2=-ES.20SES121DE S)ES1120  
 L%2\$,!-E312.E=2-E%261378(D2B32R2)=EEF105E0E-!F! .2)1M  
 ;2L\$)%DB2-SE1D!0.E=2-EM12HLS)%D.E11E-1D!0.E=2-EM<

	the next month		your lon"-term plans	
	!vera"e	6ariance	!vera"e	6ariance
Sprin" 2020	@.AA	0.JG	@.@A	0.17
=all 2020	@.H7	0.HI	@.G8	0.8J

2ne-9ay !026! p-value ;XW0.0G<	7.JE-0@	2.2E-0G
-----------------------------------	---------	---------



