



Developing an Online Seminar to Support Students New to Distance Learning

SUSAN P. GENTRY

JULIA M. CHAMBERLAIN

COLLEEN E. BRONNER
University of California, Davis
Davis, CA

ABSTRACT

To aid students transitioning to distance learning environments due to the COVID-19 pandemic, an elective seminar was rapidly deployed to teach professional skills and promote community. The seminar focused on guiding students in their development as self-regulated learners through topics including time management, wellness, and reflecting on their progress. The course was first offered during the Spring 2020 quarter. Student feedback indicated that the seminar reduced student stress, increased opportunities for peer-to-peer interactions, and delivered useful content. In Fall 2020, the course will be offered again with refined course assessment tools; course materials are posted for open access.

Key words: distance learning, student development, study behaviors

INTRODUCTION

The COVID-19 pandemic disrupted teaching and learning worldwide in March 2020. Although online courses are becoming more commonplace in higher education, many college students were unprepared for online instruction for all courses. Students also experienced pandemic-related disruptions in living arrangements, financial resources, and connections to academic and social communities (Brown and Mangan 2020; Brown and Kafka 2020). At the University of California, Davis (UC Davis), a large public institution, many students were anxious about their academic success for an online-only Spring 2020 quarter and initially expressed concerns about “feeling overwhelmed” and “falling behind on material” during the term. Furthermore, many students lacked the technology or



expertise to navigate the distance learning courses developed by their instructors. In response to students' concerns, we implemented an elective seminar course to teach relevant skills and provide a supportive community for UC Davis students transitioning to distance learning and managing challenges caused by the pandemic. The following question guided our course design: Can a seminar course support students' time management and holistic wellness while reducing their stress?

METHODS

When fully online instruction was announced in March 2020, we created a one-unit seminar titled "Strategies for Success in Online Learning." This elective, ten-week course taught practical skills such as time management and self-care; a full list of topics is given in Table 1. The course emphasized student discussion so that at least 15 minutes of each 50-minute seminar were reserved for guided discussion of the week's topic. Students were evaluated pass/no pass based on synchronous class participation, weekly reflective writing, and application-based homework (e.g., creating a wellness plan).

The course was rapidly developed since there were only 15 days between the campus announcement of distance learning and the start of the spring quarter. As such, we utilized two course series that were already in use for special topics. Three seminar sections were implemented through the UC Davis First-Year Seminar program, which offers many small topical seminars to promote student engagement. Four additional sections were offered as an engineering departmental "Directed Group

Table 1. List of seminar topics for the ten-week seminar.

Week	Seminar Topics
Week 1	Setting course expectations (Supiano 2020) Acknowledging disruptions to learning
Week 2	Strategies for successful online learning Making a plan for the quarter
Week 3	Time management and making a weekly plan
Week 4	Self-care and the eight dimensions of wellness (SAMHSA 2016)
Week 5	Reflect and refocus for the quarter
Week 6	Psychological obstacles: Imposter syndrome (Clance 1985) and growth vs. fixed mindsets (Dweck 2006)
Week 7	Communicating remotely
Week 8	Motivation: Core values and daily productivity tips
Week 9*	Preparing for exams
Week 10	Celebrate your success!

* Some seminar sections met only nine times, owing to the university calendar of holidays and final exams. For sections with nine meetings, Week 8 and 9 topics were condensed and combined.

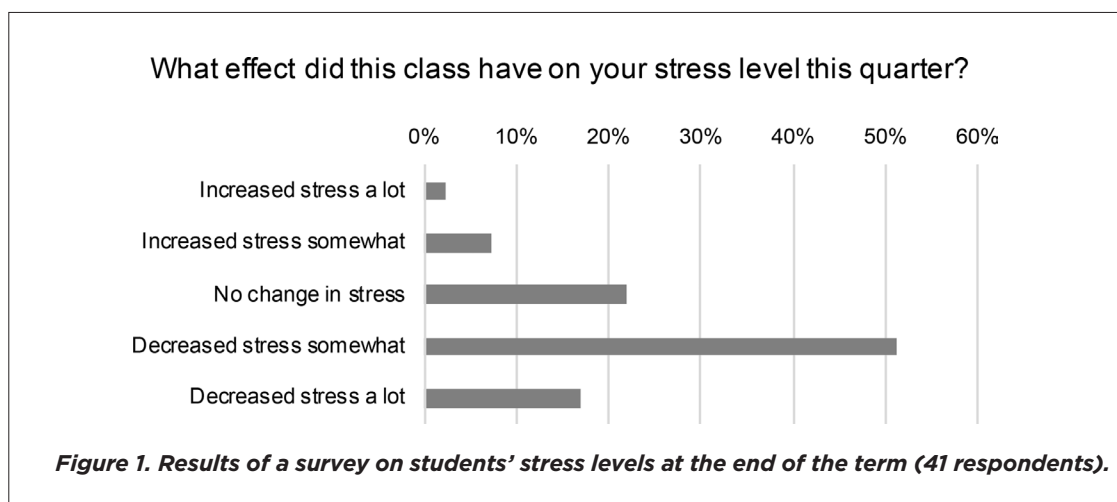


Study” course for students in the major. All sections were taught as overloads to an instructor’s teaching schedule; instructors were personally motivated to support students. To minimize the six instructors’ workloads, common course materials (e.g., lecture slides and homework assignments) were collaboratively planned and prepared by the three faculty co-authors and distributed to the instructor group.

The course pilot enrolled 61 students in seven sections; course information was distributed via the First-Year Seminar website and e-mails to about 300 engineering students. The additional course unit was needed for some students to maintain full-time academic status, but many were unaffected. The course was assessed through two anonymous surveys administered during the final class: the campus student evaluations of teaching (SETs), and an additional survey about course-specific information. Responses from the two surveys showed students’ reception of the course, perceptions of engagement, topic value, and the course’s impact on students’ stress levels.

PRELIMINARY RESULTS

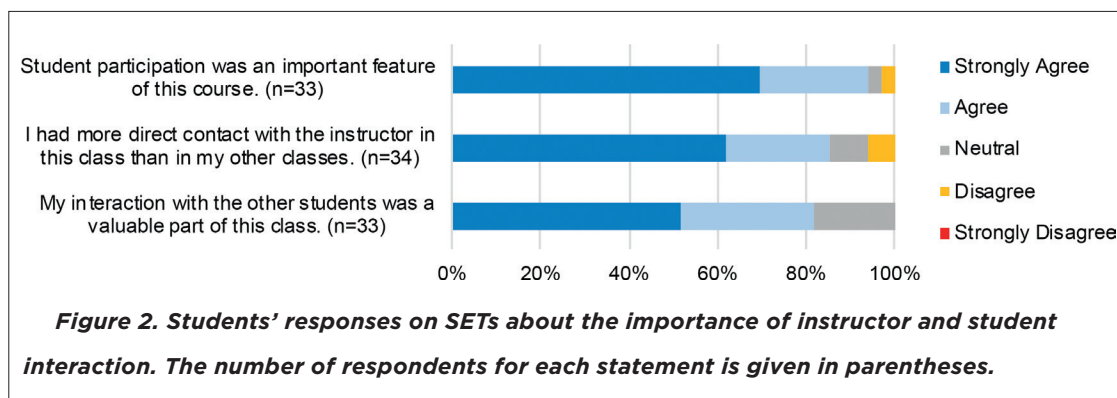
To answer our guiding question, “can a seminar course support students’ time management and holistic wellness while reducing their stress?”, we examined students’ survey responses around course reception and most valued topics. Students received the course positively, responding that they would recommend it to a classmate if Fall 2020 consists of predominantly online instruction. *All of the respondents would recommend the seminar*, with 76% strongly agreeing! Students also reported that the seminar had a positive impact on their stress levels; in Figure 1,



**Table 2. Selected student comments on SETs.**

Theme	Student Quotes
Time management	“Learning to look at productivity objectively as opposed to letting it be dependent on how much I feel like it day-to-day.”
Wellness	“This seminar really made me evaluate myself and my goals and habits. The lecture on imposter syndrome was my absolute favorite by far. It made the greatest impact.”
Interdependence of time management and wellness	“Scheduling when to do assignments and taking care of my mental health can make me more successful when completing online classes.”
Community interactions with students and instructor	“Getting to talk with the other students was really nice, since I didn’t have many opportunities for casual social interaction with other students this quarter.” “I thought [the instructor]’s direct feedback on my assignments was very valuable. It felt like my struggles were being acknowledged.”

68% of students indicated that the course decreased their stress during the quarter. Students commented that they appreciated both the time-management aspects of the course and the self-care and wellness topics (see Table 2), and several students reflected that their overall academic performance could be affected by both. Furthermore, students valued their interactions with the instructor and classmates, as shown in the SET responses in Figure 2 and student comments in Table 2. Preliminary evaluation of the seminar indicates that students felt supported and connected during the term of distance learning and that the course topics provided an adequate balance between study behaviors and student development. Ninety-seven percent of students passed the seminar; 2 of 61 students received “no pass” grades due to minimal attendance and homework submission.





NEXT STEPS

Four sections of this seminar will be offered during the Fall 2020 term at UC Davis, since the majority of campus instruction will be online. Enrollment was on-going at the time of publication but student demographics are expected to be different in the Fall offerings. In Spring 2020, students of any level could register as the course was approved days before the start of instruction; for Fall sections, first-year students, including incoming transfer students, have priority registration. Many of these students will never have taken a college-level course, either online or in-person.

Initial course assessment was limited due to time constraints and the university SETs. For Fall 2020, a rubric will be developed to assess students' use of critical reflection to regulate their learning. Additionally, students will complete the Psychological Well-Being Scale (Ryff and Keyes, 1995) at the beginning and end of the term. These results will be compared to other UC Davis students. The demographics (e.g., first-generation, race, gender) of the enrolled students will also be compared to the general university population.

The seminar course materials are being openly disseminated for use at UC Davis and other institutions. An internal faculty workshop received overwhelmingly positive feedback and resulted in two new instructors, and an external webinar is planned for the Pacific Southwest Section of the American Society for Engineering Education. Finally, the materials, including course description and lecture slides, have been posted publicly (<http://faculty.engineering.ucdavis.edu/gentry/seminar-online-learning/>).

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AUTHORS



Susan P. Gentry is an Associate Professor of Teaching in the Department of Materials Science and Engineering at the University of California, Davis. She received the New Educator Award from the Materials Division of ASEE in 2019. Her aim is to improve the materials science and engineering curriculum to support learning for a diverse population of students. She is specifically interested in using simulations and computer-based tools to enhance student learning of engineering topics while also developing students’ computer literacy. In Spring 2020, she developed and taught a seminar on supporting students for online learning and adapted a Mechanical Properties of Materials Lab course for remote instruction.



Julia M. Chamberlain is an Assistant Professor of Teaching in the Chemistry Department at the University of California Davis. She conducts research in Chemistry Education and the Scholarship of Teaching and Learning, and is motivated by the questions, “Why is learning chemistry hard, and how can we make it more accessible for students?” Her projects at UC Davis focus on understanding students’ study practices in General Chemistry and the contributions of undergraduate Learning Assistants as facilitation partners in discussion sections. She has studied collaborative learning environments and teaching practices, and the use of education technology and interactive simulations to support student learning and engagement.



Colleen E. Bronner is an Associate Prof of Teaching and Vice-Chair in the Dept. of Civil and Environmental Engineering at UC Davis. She earned her Ph.D. from SUNY at Buffalo and M.S. from UC Berkeley in environmental and water resources engineering. Her scholarly and teaching interests center around equity, inclusion and social justice in engineering. She focuses on developing programs that address individual biases and/or systems of oppression in engineering and academia. Her goal is to create a culture of belonging in her courses and engineering discipline. She believes students perform the best academically when they feel safe, basic needs are met, and the environment is positive.