

**Alei**

Drouin, M., & Vartanian, L. R. (2010). STUDENTS' FEELINGS OF AND DESIRE FOR

SENSE OF COMMUNITY IN FACE-TO-FACE AND ONLINE COURSES. Retrieved

2010, from <https://www.pfw.edu/dotAsset/ff3c217c-d596-446d-b10f-6c555fdb1674.pdf>

Researcher Drouin conveyed a real life study/survey on how people were *feeling* about being in person vs. online. He did this by asking students who attended a university that were in high level courses and were organized how they felt about the online vs. face-to-face education. The consensus was that they were not feeling a sense of community (SOC) in the online classrooms. He then goes into detail about how this is important for students to feel welcome and part of the community to be comfortable and do the things they need to understand the material such as questions and comments during lectures but what if those opportunities are not presented to them? It is important for students to feel welcome and comfortable in the environment that they are learning in because they need a sense of community amongst their classmates. If there is no mutual understanding of the people in the course and the instructor it makes it more awkward to reach out for one on one help verses asking a question during the course that will take two seconds. This is something that the people in the survey concluded would decrease their academic performance and the comfortability of learning.

## Tate

Santiago, I., Ángel, H., Julián, C., & Prieto, J. L. (2021). Emergency remote teaching and students' academic performance in higher education during the COVID-19 pandemic: A case study. *Computers in Human Behavior*, 106713. doi:10.1016/j.chb.2021.106713

Researchers observed the scores of students learning online in all courses offered at one school under a particular discipline. They compared the grades when the course was taken online to grades of the same courses when they had previously been taken in-person. In addition to a survey provided to the coordinators of these courses, the researchers concluded that learning online improved test scores. Other conclusions from the study were that neither the tools used for online instruction (Google, Zoom, etc.), nor the class sizes had a significant impact on grades. However, it was found that professors' work loads increased by about 20% due to online instruction.

## **Alaina**

Guo, S. (2020). Synchronous versus Asynchronous Online Teaching of Physics during the COVID-19 Pandemic. *Physics Education*, 55(6).

This study was conducted in order to analyze grades and performance in students that attended online lectures as opposed to completing classwork asynchronously. The goal of this study was to determine whether future classes online should require synchronous class sessions when online or if allowing students to work on a class asynchronously was better for their performance and experience. The participants in this study were the students in the introductory calculus-based physics class, specifically PHYS 211, at Coastal Carolina University. The quantitative, grade-based research was conducted using experimentation. The researchers (teachers) presented the opportunity to attend class synchronously or not to the participants (students), and then observed the change in the students' grades from the first half of the semester (in-person) to the second half of the semester (online). At the end of the semester, the students were asked to complete a survey to explain their perceptions of the course such as workload and difficulty. Across the board, the students' average exam grade decreased when class was moved online, however, students who attended the synchronous lectures only saw an average grade drop of 3.5% as opposed to 14.5% in students who did not attend, choosing to complete class work entirely asynchronously. The end-of-semester survey also found that the absent group found the class to be more difficult and spent more time working on the class than the attend group. Because of these findings, professors in the Department of Physics and Engineering Science at Coastal Carolina University concluded that as long as online class is necessary, it is more beneficial to the students if synchronous online lectures are required.

## **Maddie**

Cheng, G., & Chau, J. (2016). Exploring the relationships between learning styles, online participation, learning achievement and course satisfaction: An empirical study of a blended learning course. *British Journal of Educational Technology*, 47(2), 257–278.  
<https://doi.org/10.1111/bjet.12243>

This study was done to research see if learning styles affected online participation. The researchers hoped to find what learning styles make students participate in different online activities and forums through the courses website. There were 78 participants that took a general education course that was online and face-to-face. They voluntarily agreed to be in the study. Each student filled out a 44-item questionnaire to determine their learning style at the start of the online course. The four different learning styles were processing, perception, input and understanding. Participation was measured in three different areas: accessing digital resources, reading and creating posts in online forums, and constructing collaborative knowledge through online interaction. It was found that learning styles are significantly related to online participation. Students also participated in ways online that best reflected their own learning style. Perception learners were more likely to participate in interactive learning and networked learning. Whereas reflective learners were more inclined to material development. The study did note some limitations, it was only researched through one general education online course which is pretty specific to a certain group of people, so it might be hard to generalize.

## Conclusion

1: Learning style and attitude about online learning directly impacts success and participation in online class. For example, in “Students Feelings of the Desire for Sense of Community in Face-to-Face and Online Courses,” researchers concluded that students perform better when in person because they feel a sense of community that is lacking in online learning. This sense of community makes students more likely to participate, ask questions, and involve themselves in class material. Authors of “Exploring the relationships between learning styles, online participation, learning achievement and course satisfaction: An empirical study of a blended learning course,” also conclude, based on student surveys, that differences in learning styles have a significant impact on their participation online. The article does not specify which learning styles have more or less impact on online learning.

2: Generally speaking, online learning produces lower performance in students, however, some studies contradict this. In “ Synchronous versus Asynchronous Online Teaching of Physics during the COVID-19 Pandemic,” Siming Guo finds that students who attend online lectures had a 3.5% grade reduction as compared to students who had taken the class in person, and students who did not attend online lectures and opted to take the class entirely asynchronously saw a 14.5% grade reduction. In contrast to this finding, some research in “Emergency remote teaching and students’ academic performance in higher education during the COVID-19 pandemic: A case study” has found that there is no significant difference in student performance between traditional learning and online

instruction. However, the same research did discover that online instruction increased the workload of professors as opposed to traditional instruction.