

HIGHER EDUCATION VIRTUAL LEARNING: DOES MORE TECHNOLOGY PRODUCE BETTER OUTCOMES?

During the fall 2020 semester, many institutions of higher learning continued to hold some (or all) of their classes in a virtual learning mode due to the ongoing COVID-19 pandemic. To accomplish their learning objectives, faculty and students incorporated various technology tools into the course methodologies. A question then arose: Are the students able to adapt to these new technologies so that they help them learn? TopHat, the developer of a higher education teaching platform, surveyed 3000 higher education students in October 2020, to learn about their experiences with online learning tools. A few key findings are detailed in this paper.

Many types of tools are necessary to make online learning effective. About half of surveyed students used four or more different technology tools (Figure 1).

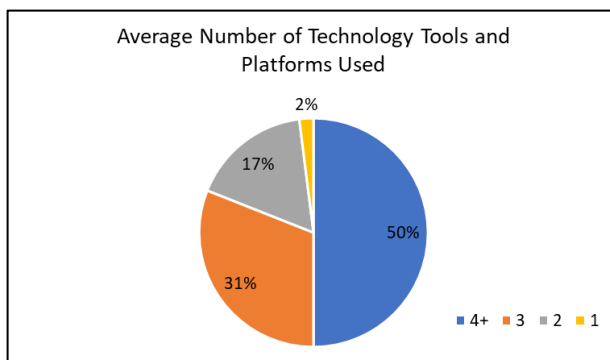


Figure 1. Number of Technology Tools Used

Students and faculty used so many tools because of the diverse requirements of online learning. They need a Learning Management System (LMS), such as Blackboard to access class materials such as assignments and tests. There is also a need for videoconferencing which can be found either within an LMS or with a separate tool such as Zoom. In some courses, students are required to participate in a group chat such as Slack. Students also need a collaboration tool such as Google Drive for group projects.

Although it is helpful that so many tools are available, the proliferation of tools can lead to problems for students. When one tool is used, only 26% of students reported difficulties navigating or using that single tool. However, when four or more are used, that percentage rises to 47% (Figure 2).

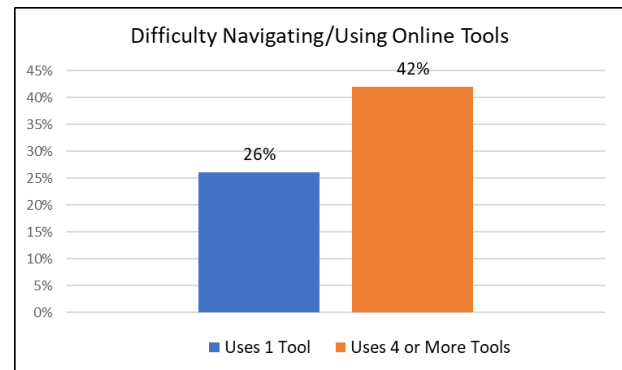


Figure 2. Difficulties Using Multiple Tools

While it might not be surprising that when more tools are used, the students have more trouble using them, one might expect that the use of multiple tools might lead to a more engaging classroom experience. However, that is not the case. With one tool, 65% of students reported a lack of classroom engagement, compared to 77% of those using four or more tools. (Figure 3).

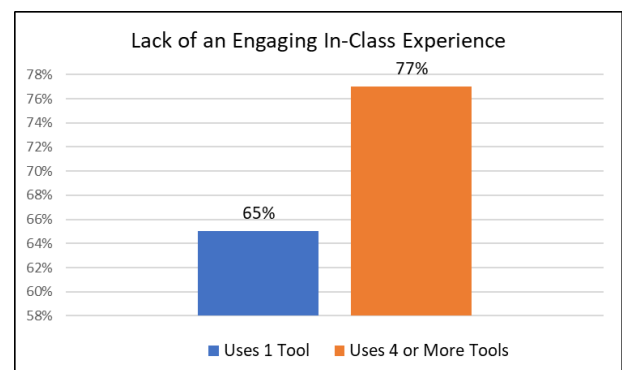


Figure 3. Engagement Using Multiple Tools

So, faculty need to carefully consider the pros and cons of using multiple technology tools in their online class. Adding another tool might increase functionality, but if the students become more confused and less engaged, is it really worth it?

References

TopHat. (2020, November 22). *Higher ed students grade the fall 2020 semester*. <https://tophat.com/teaching-resources/interactive/student-survey-report/>

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