

ECAR Study of the Technology Needs of Students with Disabilities, 2020

EXECUTIVE SUMMARY

MAY 2020

Key Findings

- **Students want their instructors to make all course materials and resources accessible online, but class notes and presentation slides were the most commonly requested, followed by assignments/tests and lectures.** Respondents reported that having online access is important because it lets them review the content both before and after class, complete their work in suitable environments, and catch up on information they miss when taking notes or if they are out sick.
- **The learning management system (LMS) is considered key to providing access for students with disabilities to online course content, and they would like faculty to use it more.** Students want an LMS layout that is intuitively structured, organized, clearly labeled, and updated so that they can find the materials they need with ease.
- **Students want to use their mobile devices in the classroom to take notes.** Most students told us that they would like to use their laptops to take notes, as they often can't handwrite notes fast enough to keep up with their instructors' lectures. They also reported that using devices in the classroom allowed them to more easily access online materials to follow along with lectures, make notes directly into the online PowerPoint, record lectures, take photos of any items on the classroom's board, or make voice memos.
- **Students want training for themselves and their instructors on how to use the technology on their campus and for their classes.** Many students reported that they needed training and direction in using software for their courses, as well as help in navigating the LMS. Students also observed that instructors needed to be trained in how to use the technology they expected their students to use.
- **Greater use of videos or other media in the classroom and online can benefit students with disabilities by presenting course materials in multiple formats.** Many students want course materials presented in alternative formats, such as video or pictures, rather than solely through lecture, reading, and PowerPoint. They reported that these modes assist in comprehension and could also make face-to-face classes more engaging and interesting.

- **Students with disabilities want to have a more engaging classroom experience through the use of interactive technology.** Students told us they want to have educational games and polling to foster a more interactive classroom rather than passively following lectures. Some indicated that gamification of course materials (e.g., [Kahoot](#)) could increase the interactivity of their classroom experience by allowing them to actively use their mobile devices for learning.
- **Assistive/accessible technology such as captioning and text-to-speech software is important to their academic success, and students with disabilities would like instructors to account for this when developing their courses.** By captioning videos, selecting digital materials that have an audio option, and/or formatting files so they are compatible with text-to-speech applications, instructors can offer students more ways to process information. Students also recognize that incorporating more of these options increases access to all learners and fosters a more inclusive environment.

Recommendations

To help instructors better meet the needs of students with disabilities, institutions can:

- **Educate faculty on the technology barriers students with disabilities face and the benefits of incorporating Universal Design for Learning principles via professional development opportunities.** Encourage faculty to set content such as lecture notes and presentation slides "free" by posting these resources on the LMS. Provide training on lecture-capture platforms, and share information about how online assignment submission and testing can benefit students, irrespective of whether they have a disability or, if they do, whether they choose to disclose it.
- **Invest in LMS accessibility applications and emphasize these as a key access feature in faculty orientations and workshops.** Products such as Blackboard Ally, which offer LMS accessibility score reports for instructors and alternate file formats for students, can be integrated into some LMS platforms to help faculty improve access to their courses.
- **Advise instructors in the early stages of course development so they keep student access in mind.** Partner with technology accessibility staff and disability services offices to recommend the selection of materials that are text-to-speech compatible. Offer faculty support in captioning videos, formatting files appropriately, and following WCAG 2.0 AA in designing online content. Such steps can lower or eliminate barriers to learning that any student might have, making the need for individual accommodations-and the disclosure of a disability-less necessary.
- **Improve faculty skills in using mobile technologies in classrooms as learning tools by increasing and incentivizing training and professional development for faculty.** Classroom bans on technology decrease a student's choice in how they can take notes or engage in learning. Bans on mobile technology also eliminate opportunities for students to use their devices in class for active learning. Device bans essentially "out" students with accommodations who use their devices in their courses, decreasing their confidentiality and privacy.

- **Train students and faculty on how best to use the technology required in their course.** One of the best ways to ensure that students have the skills to use the technology on their campus and for their courses is for instructors to model the use of the technology for them. Instructors need to consider that many students need this additional direction and informal training to successfully use technology for their courses.

To make their courses more accessible for not only students with disabilities but for all students, faculty can:

- **Adopt new habits in the development of course content to make online materials more accessible.** Use accessible templates, headings, style features, and suitable fonts and colors when creating documents, LMS pages, and online assignments. Follow accessibility guidelines to appropriately label hyperlinks and add alt tags to images. These are basic steps to add to the course-planning routine that can instantly increase student access to online materials.
- **Leverage the institutionally provided LMS and design a user-friendly space for students.** Use the programmed templates and modules to develop a consistent and organized layout, keep due dates and links current, and take advantage of the gradebook feature to improve the user experience. Check LMS content against accessibility guidelines and checklists, and make adjustments as needed to ensure content is available to all students.
- **Make course materials more accessible by creating different formats.** Start small by using a "plus one" approach, i.e., developing one alternate version of existing course content and sharing that content online so students can access it anytime. When selecting e-textbooks, look for those that have audio/read-aloud options, to provide students with an alternative to print.
- **Use multiple means such as video, visuals, and multimedia to present information in the classroom.** Many students told us that being able to watch a video related to course content increases their engagement and comprehension. Instructors should seek to increase use of captioned videos in class to break up lectures, offer alternatives to the lecture note-taking process for learning, and give students additional/alternative means of knowledge acquisition.
- **Incorporate the use of in-class technology for note-taking, learning activities, quizzes, and assignments, to increase student engagement.** Students with disabilities told us that engagement and interactivity in the classroom are paramount for their learning, and many suggested using mobile technologies to support this type of experience. They also wanted their instructors to allow devices to help them take notes and engage with course materials while in class. By ending tech bans in the classroom, this approach also facilitates the use of an active-learning classroom for all students.

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