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Engaging faculty in designing inclusive and collaborative classroom strategies with students with disabilities: A guide for faculty developers

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Abstract

Classroom disabilities are part of the diversity landscape. Usually, faculty address the needs of students with disabilities in their classrooms by honoring accommodations requests – letters from a disability services office detailing a students' needs (e.g., presence of ASL/English interpreter in the classroom, extended time on a test, large-print handouts, digital versions of slides, etc.). From there, faculty allow for the accommodation(s), and the course continues as planned – with minimal adaptation on the part of a faculty member or class participants (Schley, 2018). There are small pedagogical changes that faculty can make to increase the inclusion of students with disabilities, and improve interaction between all enrolled students (Cawthon, Jassal & Schley, in press; Cawthon, Schley & Davidson, 2019; Marchetti et al. 2019; Marchetti, Foster, Long & Stinson, 2012). Often, these strategies can also make the job of teaching more efficient and effective.

1   Introduction

This paper leads educational developers in identifying feasible ways for faculty to address inclusion needs pedagogically. Accommodations are mandated by law; they generally ensure access to information – but not necessarily full educational inclusion. Consider students who rely on a sign language interpreter during a class discussion when a professor is also presenting graphic information – such as a video demonstration, or solution written on the board. They must choose between watching the interpreter *or* the graphic information. These students have an increased cognitive load in comprehending classroom talk: it is physically impossible to watch two places at once. However, faculty members can employ relatively simple strategies to make this experience more accessible and more inclusive; pedagogical strategies which go beyond allowing for access services and disability accommodations. In this example of co-occurring visual information from multiple sources at once (interpreter, graphic on screen or board), one solution is that the faculty adopt a practice of *pausing* between presenting a new graphic display and narrating/commenting about the display. It happens that such strategies often make the experience better for many enrolled students (disabled or not). By focusing on pedagogical strategies, rather than accommodations for specific students with disabilities, faculty can decrease cognitive load for all students.

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We share examples of a number of successful strategies. By definition, this approach revolves around classroom diversity and including disabilities in the discussion and pedagogy of diverse student groups. We incorporate lessons learned from a partnership between faculty and student mentors: The student had an identified disability, and the partnership centered around increasing classroom inclusion with respect to their disability. Consider this paper to be a guide to strategies one can share with faculty to increase interaction, engagement, and inclusion in courses with co-enrolment of students with and without disabilities.

Approach	Course	Pedagogical Challenge, and Solution Strategy	
Accessible & Inclusive Classroom Layout	Physics	Challenge:	Tables arranged around the podium in the center of the room prevent line-of-sight with students sitting directly behind the instructor.
		Strategies:	Monitor student engagement with a laptop live-streaming a camera feed; cues come from the learning assistant sitting in front of the instructor in class.
	Fine Arts	Challenge:	Varying communication needs and wants (two sign language interpreters and one speech-to-text captionist) are not satisfied by traditional rows of individual student chair-desk combination seating.
		Strategy:	Use a U-shaped seating arrangement to optimize line-of-sight and engagement.
Alternative Classroom Activities & Assessments	Mathematics	Challenge:	Some of the students in the class have weak English skills.
		Strategies:	Support learning of the content without heavy reliance on English through Mad Minutes, note/reflection cards, and graphic organizer posters.
	Mechanical Engineering	Challenge:	Improve written work and oral presentations while increasing student engagement.
		Strategies:	Break written assignments into stages, allowing for peer collaboration and feedback on rough drafts. In lieu of 20-minute presentations, final projects were presented as posters, following a conference format.
Accessible & Inclusive Tools & Technology	Communication	Challenge:	Full engagement in class discussions, and gauging the level of student comprehension during lectures.
		Strategies:	Multiple opportunities for engagement and feedback, including student-led class discussions, a mobile polling application, reflection cards, and whole class activities.
	Software Engineering	Challenge:	Mixed groups of hearing and DHH students face a communication barrier and do not interact effectively in group project work.
		Strategy:	Create a mobile app to facilitate group communication.

Table 1. Strategies implemented by faculty learning community (FLC) participants: pedagogical changes to increase inclusion and interaction.

2   Strategies and examples

Participants in a semester-long faculty learning community (FLC) identified classroom challenges with regard to access and inclusion for deaf and hard of hearing (DHH) students and developed strategies to address them. The semester was designed around three areas of training: Universal Design for Learning (UDL), creating a strategy for improvement, and implementing this strategy in the classroom. The strategies to increase classroom interaction

and inclusion fell into three approaches: adapting the classroom layout, changing activities and/or assessment options, and adding tools or technology. Table 1 (adapted from Marchetti, et. al, 2019) summarizes classroom challenges and strategies considered during our FLCs.

As the semester progressed, faculty participants increased their knowledge of teaching strategies, grew more confident about modifying their teaching, and felt positive about improving student engagement in their classes. Once strategies were implemented, faculty considered how they might assess effectiveness. For some, asking their students to evaluate a teaching strategy was a novel concept.

3   Partnering faculty and students

These FLCs partnered students with disabilities with the faculty. Our institution has a high density of deaf and hard of hearing students (DHH; over 1000 of them) amidst over 15,000 students total, across 10 separate colleges. Other studies have focused on similar faculty/student partnerships with other identity characteristics (e.g., students of colour or first generation college students: see Cook-Sather 2019, 2020; Cook-Sather & Des-Ogugua, 2019; Oleson, 2016). To our knowledge, our work is the first to partner students with disabilities with faculty. Students observed class sessions, brainstormed with faculty about access and inclusion challenge points, and assisted in designing responsive strategies to address these challenges. Importantly, they were not enrolled in the specific courses they observed – instead their role was more of mentor and observer. Students were also full members of the FLCs, and participated in discussions with faculty about inclusion challenges and solutions.

4   Role of faculty developers

This project was conceived of as an effort in inclusive faculty development. A faculty developer was part of the team, as well as a faculty member with experience in faculty development research. The faculty developer ensured a holistic focus on teaching and learning core principles embedded within the goal of increasing inclusion and interaction in faculty participants' courses. Core principles included discussion of clear linkages between learning objectives, instructional activities, and assessments. Other faculty developer roles included formulating the learning community readings and curriculum, hiring student mentors, and training student mentors in using the classroom observation tool (see Cawthon, Schley and Davidson, 2019) and working with faculty to share their feedback and perspectives.

5   Conclusions

This model could be implemented and adapted to address a variety of classroom diversity challenges at any university or institution of higher education. We focused specifically on partnering students with disabilities with faculty, given a specific context and interest on our campus. Facilitators, faculty participants and student-mentors explored concepts of Universal Design for Learning; proposed an accessibility strategy; implemented the strategy in their courses; and considered assessment options. Student-mentors were a part of the process from start to finish, observing faculty-participant classrooms; giving feedback on what worked well; brainstorming potential strategies to improve access and inclusion; and helping to test, implement, and assess strategies. While these deaf and hard-of-hearing student-mentors noted visual, physical space, and interaction challenges to address, other groups of students would add valuable perspectives about increasing interaction and inclusion from their own perspectives. Alternate variations of this model could include adding a focus on culturally informed pedagogy, trauma-informed pedagogy, and/or managing difficult conversations in the classroom. This effort to provide resources for faculty to develop their inclusive pedagogical skills along with student partnership resulted in a series of relatively simple pedagogical strategies which improved interaction and inclusion in these courses.

Acknowledgements

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