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COMMENTARY

Beyond learning outcomes: Creating equitable learning environments in online I-O graduate education

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Although, like Kraiger et al. (2022), we see the importance of examining learning outcomes across online and face-to-face learning contexts, we contend that learning outcomes should not be the only criteria of interest for graduate education in industrial-organizational (I-O) psychology. Because online education enables greater access to students across social identities, we must consider whether programs are meeting the needs of a more diverse student population. However, diversity within higher education and distance education are often considered separately, leaving instructors unsure of how to integrate diversity, equity, and inclusion (DEI) in online education. Consequently, instructors may take a technology-led approach to the curriculum while unintentionally neglecting evidence-based practices associated with the scholarship of teaching and learning and social justice education. For instance, instructors may hold the mistaken belief that culture and identity issues are neutralized in an online environment, but even in courses where DEI is not the focus, social identity issues still manifest (Limburg & Clark, 2006). Thus, the question remains: "How do we design online education in ways that encourage DEI?"

Incorporating DEI into online education is a moral and ethical imperative, and universities are increasingly heeding this imperative in their mission, vision statements, and strategic plans. Furthermore, our professional associations are calling on us to engage in more inclusive and equitable practices. For example, in their *Guidelines of Education and Training*, the Society for Industrial and Organizational Psychology (SIOP) states that, "I-O psychologists should be sensitive to and have the interpersonal skills to interface with a diverse audience in a multicultural, global environment" (2016, p. 6). Unquestionably, calls for action have been made, yet DEI remains an afterthought in psychological research, practice, and education.

Beyond comparing learning outcomes in online and face-to-face classrooms, we must also consider how to create just and equitable learning environments, beginning with culturally responsive computing. Scott et al., 2015) draw inspiration from culturally responsive teaching to develop tenets of culturally responsive computing, one of which focuses on using technology to enhance students' understanding of intersecting identities. Accordingly, culturally responsive teaching and computing can leverage practices that build on the unique identities that the instructor and learner bring to the online learning environment. Indeed, online and face-to-face education result in comparable learning outcomes when effective design principles are implemented (Kraiger et al., 2022). Similarly, evidence-based practice in online learning can result in benefits to attitudes, beliefs, and behaviors that are comparable to those obtained with in-person instruction (Alvarez & Domenech Rodríguez, 2020). Thus, it is critical to move a step further to foster just and equitable learning environments via consideration of the challenges and benefits of integrating DEI in online graduate education.

Challenges

Online education thrives on the ease of access it offers but can also present significant impediments to inclusion. Online education may give rise to the mistaken assumption that it is culture neutral (Limburg & Clark, 2006), thus neglecting issues that arise from dominant cultural values, particularly Anglo-American assumptions that underlie online communication. For instance, instructors may disregard unique obstacles that students with minoritized identities encounter in online education such as impersonal interactions, disclosure of identities and lived experiences, and miscommunication.

Notably, impersonal interactions are reported in online education given limited information related to tone, lack of eye contact, and minimal familiarity with the instructor (Alvarez & Domenech Rodríguez, 2020). Impersonal interactions inhibit rapport building and forming authentic relationships, potentially exacerbating minoritized students' perceptions of being in the out-group and creating the sense that they must accommodate in-group norms by undermining their own cultural values and strengths (cf. Tajfel & Turner, 1986). Therefore, when learning activities center on student-generated content, students with underrepresented identities may struggle with whether to conceal or disclose their identities. Regardless, students and instructors alike will make assumptions based on limited information. Even a student's name will elicit assumptions about race, gender, and socioeconomic status, and when instructors do not address these biases, conflict may arise from cultural differences. For instance, English-language learners with low language proficiency tend to participate less in online communication forums for fear of being misunderstood due to language barriers and/or cultural mismatch (Hannon & D'Netto, 2007). Instructors may be aware of such issues but are often unsure of how to mitigate and remove barriers, citing concerns related to the additional time and effort needed to address diverse learning needs, fears of stereotyping students, and lack of training and skills to address cultural diversity in an online setting (Kumi-Yeboah et al., 2020).

Benefits

Despite the unique challenges associated with integrating DEI in online education, there are ample benefits associated with access, perspective sharing, and student-centered learning. Most notably, online education provides more flexibility for students who would otherwise not be able to participate in face-to-face classrooms, whether due to a geographical limitation (i.e., rural location), disability, caregiving responsibilities, or full-time occupation (Alvarez & Domenech Rodríguez, 2020). Because online education is not regionally bound, students from all over the world can interact with one another, providing opportunities for perspective sharing. Students may also feel more comfortable sharing their voice because they do not have to compete for air time or the space to share their views in a synchronous setting (Limburg & Clark, 2006). In addition, students may experience online classrooms as more student centered, allowing flexibility for students to learn in their own way at their own pace and rely less on instructor direction (Limburg & Clark, 2006).

Recommendations for practice

Upon review of the challenges and benefits associated with integrating DEI in online education, we note five recommendations that I-O psychology faculty may implement today. For additional examples, please reference the 2017 *Guide to Inclusive Teaching at Columbia* (Appert et al., 2017).

Developing cultural competence

Integrating DEI across all learning environments rests on an instructor's awareness of their own culture and students' cultural differences. Thus, instructors must be aware of their cultural

assumptions and how they may impose their cultural values on students (Latchem, 2005). Moreover, we encourage faculty to familiarize themselves with communication tendencies across cultures (Fox, 2005), including a focus on cultural differences in online discussion forums (e.g., turn taking, timelines for replying; Goold et al., 2007). Through intentional and ongoing effort to develop cultural competency, instructors will become more adept at fostering an inclusive classroom community.

Engaging in curriculum reform

Faculty should regularly review instances of hidden curriculum (e.g., personal anecdotes, class examples, reading materials) that may unintentionally exclude students from underrepresented groups. Instructors should further provide opportunities for students to relate to the content, invoking a practice in the science of learning term elaboration, which enhances learning and retention (Rhodes et al., 2020). Equally important, instructors should consider integrating multi-cultural reading resources that infuse a variety of diverse cultural values and perspectives.

Setting expectations

Clearly communicating the cultural values embedded in the course design via course descriptions and syllabi and during course orientations provides students with insight into how they see them-selves moving through the course (Kumi-Yeboah et al., 2020). This may help students to anticipate cultural differences and know when to seek support. Moreover, faculty should include a statement of equity on their syllabi that reviews procedures for providing feedback as well as managing any instances of classroom incivility. Such procedures may also detail proper etiquette and ground rules for communication, particularly in online discussion posts.

Fostering community

Given that some students may feel isolated and struggle to build authentic relationships in online learning environments, fostering a sense of community and belonging can positively influence students across social identities. In the age of the COVID-19 pandemic, online instructors have recognized the value of creating online social clubs or virtual cafes that are accessible through their course management systems. Some instructors have discovered that the foundations of an online community can be built by encouraging students to share their academic knowledge, thoughts, and fears (Motteram & Forrester, 2005). When students' vulnerable and authentic engagement is met with collective support, such as through affirming responses to a discussion post, students may develop a greater sense of belonging.

Cultivating presence

Instructors should cultivate social presence, teaching presence, and cognitive presence. Social presence is rooted in the idea that online learners are real people (Lewis Grant & Lee, 2014). To facilitate social presence, we encourage online instructors to use cultural snapshots where stu-dents describe "essential information about their backgrounds, cultures, strengths, the kinds of learning activities that work best for them, and the challenges they face in the online environment" (Kumi-Yeboah et al., 2020, p. 29), reinforcing the idea that learners are human beings and not just names on a course management system. Through learning about students via cultural snapshots, instructors position themselves to provide equitable and just treatment. Presence can also be cul-tivated through teaching presence, which requires faculty to be thoughtful about their teaching strategies and rapport building. This can be instantiated by methods such as the appropriate use of humor, sharing personal experiences, responding to students by name, and by asking

questions or seeking elaboration in online discussion posts (Fox, 2005; Gunawardena & LaPointe, 2008). Instructors can also foster cognitive presence by helping learners to construct meaning through reflection in a community of inquiry, driven by students' interests (Lewis Grant & Lee, 2014). Cognitive presence centers on allowing time for reflection and understanding (Goold et al., 2007) and creating spaces for experiential and collaborative learning. Feedback on discussion posts can also serve to cultivate cognitive presence because students and instructors can provide more comprehensive explanations on controversial and sensitive topics (Kumi-Yeboah et al., 2020).

Conclusion

When considering the unique opportunities online graduate education can provide students, we must think beyond learning outcomes and focus on creating just and equitable learning environments. Given that no medium is inherently better than another, instructors should strive to enact the same inclusive practices central in face-to-face classrooms but with added attention to social, teaching, and cognitive presence. By going beyond simply addressing learning outcomes and implementing recommended practices, I-O psychology faculty can attend to recent calls of action to create opportunities for student success across identities.

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