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Editorial: Championing inclusion and diversity: inclusive design practices and approaches for education

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Editorial on the Research Topic
Championing inclusion and diversity: inclusive design practices and approaches for education

The importance of valuing the diverse experiences and perspectives of people with disabilities is now widely acknowledged. However, many challenges remain, including addressing attitudinal barriers and facilitating the participation of people with disabilities at all levels of society. The articles in the present Research Topic collectively address two important themes in this context: the participation of people with disabilities and reconceptualizing disability.

Regarding participation, there is a growing body of research on the involvement of people with autism and/or intellectual disabilities in design (Robb et al., 2021) and research (Bigby et al., 2014; Frankena et al., 2019). A key challenge is that of deepening our understanding of the process of participation and particularly how to conceptualize the value of participation from the perspectives of all involved (Frauenberger et al., 2015).

Related to this, the second theme of reconceptualizing disability highlights the ongoing rejection of models of disability that view neurodivergent people as lacking or deficient (Chapman, 2021). All the articles included in the present Research Topic in some way advocate for an understanding of disability in educational contexts that values the diverse perspectives, experiences, and contributions of all.

The Research Topic contains three articles on participatory design and research in educational contexts, one systematic review of the challenges and opportunities that students with disabilities face, and one conceptual analysis article elucidating a strengths-based conception of neurodiverse students.

Ward et al. report on the participatory design (PD) of a game by students with autism. The authors focus on the process (rather than the products) of PD, with an emphasis on capturing the ways in which the students evaluated the process. A notable strength of the study is their rich analysis of multiple forms of data, including a digital video story subsequently created by two students. Rather than considering only written or verbal reports, the authors use multimodal analysis to understand how the students used other modes of communication such as color, gesture, font, and video footage to create and communicate an

understanding of the PD process and the value they placed on it. The authors argue that this afforded the students a wider range of expression and better reflects the diverse experiences of individuals with autism.

The article by Boyle and Arnedillo-Sanchez investigates the challenges of conducting PD sessions with autistic children by focusing on the perspectives of adult facilitators. The authors conducted a thematic analysis of field notes from PD sessions, content produced by the children, and semi-structured interviews and a focus group with five adult facilitators. They identified three themes. Regarding the first theme, "valuing contribution", the adults described their efforts to uncover meaning in children's contributions and how they viewed the design as representing the children. Under the second theme, the "challenge of listening", the designers noted the mismatch between their expectations and the realities of PD. Finally, under the theme of "ownership in outcome", the adults discussed how to conceptualize the success of the project and noted a collective sense of ownership in the final outcome.

Sousa et al. conducted participatory research and design with 14 adults with intellectual disability (ID). Students studying video games were tasked with developing games that would be accessible for people with severe ID. The students worked with the 14 adults to create several games. The adults with ID were involved in the complete process, from the initial conceptualization, through co-creation and playtesting, to playing the final games. Based on multiple methods, including a content analysis of the created games, the authors report that the process led to increased wellbeing and empowerment for the participants with disabilities.

Goodall et al. present a systematic review of research on the impact of barriers and facilitators on students with disabilities transitioning from higher education to employment. The authors considered a broad range of empirical studies concerning a wide variety of disabilities and using both qualitative and quantitative methods. They identified multiple barriers and facilitators under seven themes. Their findings show that students have mixed experiences, with concerns about disclosure of disabilities being a commonly reported barrier. The most frequently reported facilitator was having a specific person (e.g., a student or professor) who supports a student. Overall, the authors note that students and graduates with disabilities often have to work harder than other students, in part because of the persistence of the medical model of disability.

Chrysochoou et al. address the medical model of disability directly. The authors present a review of the move away from a deficit-based model of neurodiversity, and they demonstrate the inclusive benefits of an alternative strengths-based conception of neurodivergent students in engineering. The authors call for a paradigm shift in engineering education (and higher education in general), arguing that transforming the ways in which disability is perceived by faculty and staff is key. By promoting a model of disability in which individual differences are viewed as valuable (e.g., offering diverse perspectives) and students with disabilities are empowered, it should be possible to simultaneously improve the experience of students and increase creativity in engineering fields.

Taken together, these articles present important advances regarding our understanding of disability and the participation of people with disabilities in society, with a particular focus on educational contexts.

Author contributions

NR drafted the manuscript. NR, YP, and FB made substantial contributions to the conception and design of the work, including revising the work critically for intellectual content, final approval of the version to be published, and agreement to be accountable for all aspects of the work in ensuring questions related to accuracy or integrity. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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