

Editorial for Special Issue of Educational Designer: On Design for Justice and Belonging

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Abstract

Looking across the collection of ten papers in this special issue of Educational Designer, in this editorial, we summarize the larger need, patterns in what was learned about design principles and design processes, and challenges in writing and reviewing papers in this area. This special issue explores the urgent need to integrate justice, equity, and belonging into educational design, particularly in response to persistent exclusions and inequities exacerbated by the COVID-19 pandemic and broader sociopolitical shifts. The ten papers engage with diverse conceptualizations of justice and belonging, highlighting frameworks such as equity, accessibility, student agency, and cultural representation. Contributions address the characteristics of designed products, including curricula, professional development tools, and student materials that manifest justice-centered approaches. Additionally, insights into inclusive design processes emphasize stakeholder collaboration, diverse team composition, and iterative refinement. Common challenges in this work include resisting oversimplification in educational interventions, navigating tensions in defining justice across different contexts, and addressing resistance from those who do not perceive systemic inequities. The review process also revealed difficulties in balancing specificity and generalizability, as well as the emotional weight of criticism in justice-focused scholarship. Ultimately, this special issue underscores the necessity of sustained, reflective engagement in designing for justice and belonging.

Introduction

Improving the educational outcomes of learners has long been central to the work of educational designers. However, exclusion, injustice, inequities, and inattention to diversity in learners remain persistent challenges that have become increasingly urgent, particularly given the longer-term consequences of the COVID-19 pandemic alongside political and financial changes occurring in many countries. In addition, the many competing conceptions of social justice, belonging, equity, inclusion, and diversity challenge the work of educational designers. Finally, as there are now strong criticisms of the foundational research traditions (theories and methods) that underlie many educational designs, this topic is both relevant and urgent. For example, there are concerns about an overly narrow focus on certain kinds of learners, such as those coming from Western, Educated, Industrial, Rich, and Democratic (WEIRD) contexts (Henrich et al., 2010; Muthukrishna et al., 2020) that limits the generalizability of findings.

To learn more about the current efforts to design for justice and belonging so that we may better support educational designers, we issued a call for papers that provide new models, insights, and guidance on design for social justice and belonging. In particular, we emphasized the ‘belonging’ part: efforts to focus on so-called ‘EDI’ in education have been criticized for being surface-level, functional, or assimilation (e.g., [Biesta et al., 2022](#)). For the field to move forward, it is important to recognize the importance of dismantling oppressive structures and authentically valuing diversity. This has been framed as moving towards *transclusion*: “a movement that changes the positions (and hence identities and relationships) of both outsiders and insiders, rather than leaving insiders in their place (literally and metaphorically) and only requiring (or facilitating or demanding) movement from those on the outside” ([Biesta, 2019](#), pp. 97-98).

The response was impressive, and after multiple iterations of drafting and refinement, 10 papers spanning two issues of *Educational Designer* (#17-#18) address these concerns. Here, we briefly synthesize three main themes among the contributions before reflecting on common challenges, issues, and experiences in both the review process and the papers’ contents. Designing for equity, justice, and belonging has long historical roots but also may be new territory for many designers and researchers looking to embed these considerations throughout their processes. So, it is worth reflecting on these commonalities as we also create time and space to support the community’s growth by sharing concerns.

Themes within Contribution Types

Conceptualization

Many papers in this special issue help advance our understanding of what it actually means to design for justice and belonging. For example, several papers conceptualize design for justice in terms of equity ([Polly & Martin](#); [Menzies & Schunn](#); [Macey & Rycroft-Smith](#)) and accessibility ([Calleja](#)). Differing, though not *per se* contrasting perspectives are shared by others, who, in their conceptualization of design for justice, emphasize care for students ([Chen](#)), student agency ([Jasien et al.](#); [Chen](#); [Staples et al.](#); [Tofel-Grehl & Hansen](#)), and centering the experiences of populations that are traditionally marginalized in STEM education ([Jasien et al.](#)). Similarly, the papers in this Special Issue include a variety of conceptualizations with regard to the central concept of *belonging*. Some papers focus on cultural relevance (e.g., [Menzies & Schunn](#)), representation (e.g., [Jasien et al.](#)), or language ([Chen](#)). Furthermore, the themes of participation and collaboration are present in many papers (e.g., [Jasien et al.](#); [Polly & Martin](#); [Staples et al.](#)). Finally, the set of papers as a whole also examines intersections between these key concepts. For example, some put forth the notion that addressing justice can foster belonging or that fostering belonging reinforces equitable outcomes. In a similar vein, many of these papers point out that designing for justice and belonging requires attention to holistic student experiences, both academic and personal.

Designed products

Most of the papers in this special issue comment on the characteristics of products that could or should manifest attention to justice and belonging. One class of products that papers comment on involves curriculum frameworks and guidelines, with attention to those that are needed, as well as several worked examples. There is guidance for new design and revision of existing curricula ([Jasien et al.](#); [Calleja](#); [Menzies & Schunn](#); [Tofel-Grehl & Hansen](#)). There is inspiration for addressing diverse cultural backgrounds ([Calleja](#); [Polly & Martin](#); [Menzies & Schunn](#); [Rowan et al.](#)). And the set also includes

practical steps for specific pedagogies ([Tofel-Grehl & Hansen](#); [Rowan et al.](#)) as well as assessment and/or resources ([Polly & Martin](#); [Macey & Rycroft-Smith](#)). Another class of products discussed is tools for teacher professional development. [Rowan et al.](#) describe how they designed a workshop for university teachers that helps them develop the capacity to recognize and challenge systemic inequities. Several papers hold implications for helping teachers learn how to implement new or updated curricula ([Staples et al.](#), [Polly & Martin](#), [Menzies & Schunn](#)), while others hold implications on the use of culturally responsive methods or even (design principles for) simulation environments in which preservice teachers can practice equitable teaching ([Barno et al.](#)). Finally, multiple papers comment on the characteristics of student materials and resources that (have the potential to) attend to justice and belonging ([Calleja](#), [Polly & Martin](#), [Tofel-Grehl & Hansen](#)). In addition to new design, this also includes adaptation of existing materials and resources ([Chen](#), [Menzies & Schunn](#), [Jasien et al.](#)).

Design processes

Some of the papers in this special issue offer guidance or insights to inform designers' processes. One theme that emerged from several papers pertained to strategies for facilitating high-functioning, diverse design teams. Multiple papers emphasized the importance of team composition that reflects diverse cultural backgrounds and lived experiences and embodies equity-centered practice ([Menzies & Schunn](#), [Rowan et al.](#), [Jasien et al.](#)). Several papers provide considerations for fostering collaboration and stakeholder engagement, for example, by involving diverse stakeholders early and often ([Menzies & Schunn](#); [Staples et al.](#), [Tofel-Grehl & Hansen](#)). It is also suggested that collaboration and stakeholder engagement during design could be viewed as tools for dismantling hierarchical systems. Last but certainly not least, the importance of gathering feedback was mentioned regularly across the special issue paper set. Topics included gathering input from multiple sources and through clearly structured mechanisms ([Macey & Rycroft-Smith](#); [Staples et al.](#); [Tofel-Grehl & Hansen](#)). When combined with iterative testing, this enables continuous refinements, which are essential to enable equity-focused (alongside functional) improvements.

Common Challenges Across the Contributions

Empowering, not spoon-feeding

A common component within patterns of inequity and injustice involves reacting to differential learning outcomes through (sometimes over-) simplification of content. The problem is inherently, therefore, seen as situated in the learners themselves, either because they are (erroneously) perceived as inherently less capable or because their past inequitable environments have left them less capable. Simplification of content further increases these inequities rather than addressing them. In sharp contrast, several contributions to the special issue present ways of making STEM tasks richer (as opposed to simpler). For example, Black girls are given rich problems with compelling content in [Jasien et al.](#), and students in Malta are given rich inquiry problems ([Calleja](#)). Several other contributions also discuss ways of dismantling or removing artificial barriers. In other words, the science / mathematics concept or learning goal is unchanged, but peripheral elements that are inherently inequitable are remedied. For example, science teachers are given opportunities to reflect on the ways in which their own teaching practices may exclude some students in [Rowan et al.](#), or readers invited to consider the effects of biased representations of women in mathematics design in [Macey and Rycroft-Smith](#).

More work ahead

The theoretical lenses offered in these contributions (e.g., Black Feminism, Universal Design for Learning, Equity-based mathematics practices, Civic Discourse principles) enabled designers to make design decisions that improved learning environments. However, many of the manuscripts also showed ways in which additional issues needed to be addressed in those same designs. Since design always involves dealing with constraints and tradeoffs, it is not necessarily that a further revision that addresses one of those remaining would improve overall outcomes; more complex is not necessarily better. However, it is also the case that in the infinite range of possible designs, there will be designs that further improve outcomes for historically minoritized students. It is natural for authors to want to minimize those challenges as they seek to advocate for their specific designs and design approaches. Indeed, in advocating for change, the remaining issues should not be made so large as to discourage adopting improved approaches. At the same time, design work needs to continue, and the design/author team is well-positioned to clearly identify what work lies ahead rather than leaving this as something to be rediscovered by others. Thus, it is important to identify both what has been successful and what further work lies ahead and to remember that doing something is better than doing nothing; inviting and accepting critique are crucial parts of designing for justice and belonging.

However, it takes courage and energy to note the challenges, partly because it opens the designers to new avenues of criticism, especially because of the fraught nature of designing for justice and belonging in many current cultural and country contexts. In addition, while authors and designers typically welcome critique as part of scholarship and design, the closer the critiques are to issues of identity, status, and power, the more painfully such critique can land. As editors of this issue, we stand with all those fighting for equity, justice, and belonging in education in ways large and small. We resist the silencing and violence that is the opposite of our endeavors. Design has the power to make a difference, and just as in every other arena, the choice to accept or challenge the *status quo* is not neutral.

Experiences During the Review Process

Your issue is not my issue

Many demographic groups have experienced exclusion, inequity, and injustice in STEM education. Designers often explicitly focus on a particular demographic group in their designs, as in the case of Black girls in [Jasien et al.](#), indigenous youth in [Tofel-Grehl and Hansen](#), or multilingual learners in [Chen](#). As these submissions were reviewed, some reviewers were challenged by the application of the frames of inequity or justice to student groups that were not their own focus. This was especially likely to occur across international boundaries, where the patterns of who is excluded can be different. On the one hand, the power of a manuscript is increased when it is clear and explicit about how the design choices or frameworks can apply to other contexts and other demographic groups. Therefore, authors should be pushed to identify possible generalities. On the other hand, contributions should not be barred from publication because they don't apply to all demographic concerns. To center the narratives of those who have been marginalized, a certain amount of 'zooming-in' is important. In essence, insisting in the review process on applications to another specific group that has been marginalized may lead to competition or conflict among historically excluded groups. This pattern greatly undermines the larger effort for inclusion and justice.

Those in power see fewer problems

Those who themselves are not part of any demographic group that has been historically excluded may find it difficult to appreciate why any special effort is required, especially when focused on highly familiar design contexts. When reviewing papers about contexts that are not familiar to the reviewer, summaries of evidence of exclusion and injustice can be taken at face value, and thus designs that address those exclusions and injustices can be valued. But when reviewing papers about exclusion in one's own context, one's own lived experience as a non-excluded community member can lead to rejecting the base claims: these are exaggerations, political rather than empirical, stories from a left-behind past, or perhaps generally untrue. In essence, the reviewers may believe these described problems don't apply where they live and work because they haven't seen such forces at play. This subjective mismatch to a described design challenge can occur either because they are not subject to those problems or because they have unconsciously contributed to the problem and, therefore, tend to remember past experiences more positively. We observed these challenges within some of our reviewers. It leads us to consider that readers from those same non-excluded demographics are likely to read these papers with similar reactions. It leads us to ask what might be done to improve the receptivity of the messages, particularly because the demographic characteristics of educational designers in STEM will largely mirror the demographic characteristics of the larger STEM workforce.

Receiving criticism in reviews is more challenging here

While all educational design involves some empathy and passion for learners, the stakes often feel higher when it comes to concerns of equity, belonging, and justice. As a result, there is an increased likelihood of giving up on a manuscript when receiving moderately strong criticism that normally would have led to revision and resubmission. Coming from the perspective that all manuscripts are progress reports rather than the final word and that all designs can be further improved, it seems just as important for manuscripts on designing for justice and belonging to have the same underlying persistence towards publication, if not more so.

Closing Considerations

On the whole, this special issue process and its resulting contributions reinforce the urgent need for such a special issue and further design scholarship on the topic. *Educational Designer* will continue to host special issues that draw attention to education design issues that have previously received too little attention. As part of its creation and reviewing process, there will also be special attention to who is participating in the creation of the special issue call, who is contributing to the reviewing process, and what concerns are held at the forefront during the editorial processes.

References

- Biesta, G., Wainwright, E., & Aldridge, D. (2022). Editorial: A case for diversity in educational research and educational practice. *British Educational Research Journal*, 48(1), Article 1. <https://doi.org/10.1002/berj.3777>
- Biesta, G. (2019). *Chapter 7 Transclusion: Overcoming the Tension between Inclusion and Exclusion in the Discourse on Democracy and Democratisation*. Brill. https://doi.org/10.1163/9789004401105_008
- Henrich J., Heine S. J., Norenzayan A. (2010). The weirdest people in the world? *Behavioral & Brain Sciences*, 33, 61–83. <https://doi.org/10.1017/S0140525X0999152X>
- Muthukrishna, M., Bell, A. V., Henrich, J., Curtin, C. M., Gedranovich, A., McInerney, J., & Thue, B. (2020). Beyond Western, Educated, Industrial, Rich, and Democratic (WEIRD) psychology: Measuring and mapping scales of cultural and psychological distance. *Psychological Science*, 31(6), 678-701. <https://doi.org/10.1177/0956797620916782>

From this Special Issue

- Barno, E., Benoit, G., Dietiker, L. (2025) Designing Digital Clinical Simulations to Support Equitable Mathematics Teaching. *Educational Designer*, 5(18). ISSN 1759-1325
Retrieved from: <http://www.educationaldesigner.org/ed/volume5/issue18/article76/>
- Calleja, J. Features in Task Design for Inclusion: An Example of a Mathematical Investigation. *Educational Designer*, 5(17). ISSN 1759-1325
Retrieved from: <http://www.educationaldesigner.org/ed/volume5/issue17/article68/>
- Chen, N. (2024). When is it Right to Break the Law? Redesigning Argumentative Writing for Multilingual Learners. *Educational Designer*, 5(17). ISSN 1759-1325
Retrieved from: <http://www.educationaldesigner.org/ed/volume5/issue17/article72/>
- Jasien, L., Lolkus, M., Eanes Snowden, M.A., Dietiker, L. (2024). Designing Mathematics Curricula that Center Students' Brilliance. *Educational Designer*, 5(17). ISSN 1759-1325
Retrieved from: <http://www.educationaldesigner.org/ed/volume5/issue17/article67/>
- Macey, D., Rycroft-Smith, L. (2025) Developing Guidelines for Assessment and Resource Design In Mathematics Education to Support Equity, Diversity, Inclusion, and Belonging. *Educational Designer*, 5(18). ISSN 1759-1325
Retrieved from: <http://www.educationaldesigner.org/ed/volume5/issue18/article74/>
- Menzies, C.M., Schunn, C.D. (2024). Designing for Equity at Scale. *Educational Designer*, 5(17). ISSN 1759-1325
Retrieved from: <http://www.educationaldesigner.org/ed/volume5/issue17/article71/>

- Polly, D., Martin, C.S. (2024). Considering the Design and Use of Differentiated Activities and Fluency Games to Advance Equity-Based Mathematics Practices. *Educational Designer*, 5(17). ISSN 1759-1325
Retrieved from: <http://www.educationaldesigner.org/ed/volume5/issue17/article69/>
- Rowan, E., Bilinski, A., de Boer, M., Bouhamou, C., Khan, S.N., Nieves Delgado, A., Bakker, A. (2024). Inclusive Science Teaching: Designing a Workshop for University Teachers. *Educational Designer*, 5(17). ISSN 1759-1325
Retrieved from: <http://www.educationaldesigner.org/ed/volume5/issue17/article70/>
- Staples, M., Seeto, K., Wei, X. (2025) Designing for Mathematically Enriched Democratic Dialogues: The MinD Lesson Model. *Educational Designer*, 5(18). ISSN 1759-1325
Retrieved from: <http://www.educationaldesigner.org/ed/volume5/issue18/article75/>
- Tofel-Grehl, C., Hansen, T. (2025). When the Land Whispers: Engaging Geographic Consequential Learning with Indigenous Hawaiian Youth. *Educational Designer*, 5(18). ISSN 1759-1325 Retrieved from: <http://www.educationaldesigner.org/ed/volume5/issue18/article73/>

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Retrieved from: <http://www.educationaldesigner.org/ed/volume5/issue18/article77/>