

# Learning & Teaching

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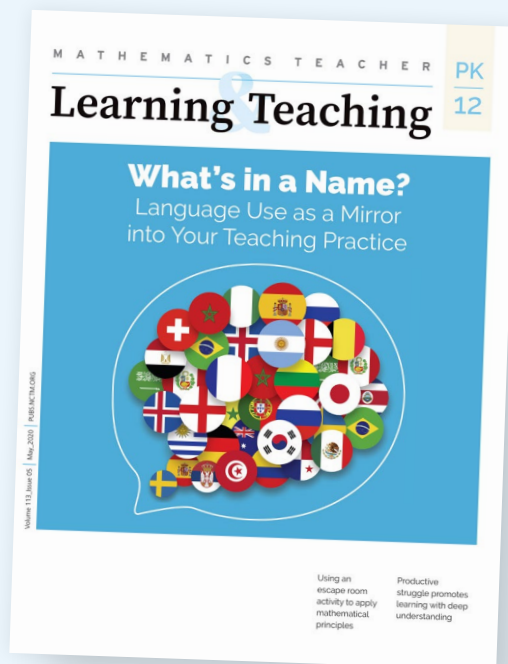
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## Mission Statement

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# “The Condo Problem”: Musings of a Queer Mathematics Educator

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## Dear Editor,

I was excited to see Nabb et al.’s “The Condo Problem” in the September 2020 issue of *Mathematics Teacher: Learning and Teaching PK–12*, given how little attention LGBTQ+ issues receive in mathematics education. I commend the article’s authors for their work in applying the tenets of culturally responsive teaching to mathematical contexts involving gender identity and sexual orientation. Not enough educators are doing this critical work. I also enjoyed reading the authors’ experiences in having preservice teachers (PSTs) rewrite the Condo problem to be more inclusive while preserving the mathematics of the original problem. As the authors note, such opportunities allow for rich mathematical discussions and uncover student understandings and misconceptions. I am happy the authors (and journal) recognized the importance of sharing such experiences with other teachers.

Keeping the aforementioned strengths in mind, as a member of both the LGBTQ+ and mathematics educator communities (as well as someone whose research focuses on supporting LGBTQ+ students), I had some concerns with this article. While these views are my own and I do not claim to speak for all LGBTQ+ people, I have grounded my concerns in existing scholarly literature on LGBTQ+ people and our experiences.

My first concern was with Nabb et al.’s (2020) repeated use of the words *uncomfortable* and *discomfort*

throughout the piece. For example, at one point, the authors describe PSTs’ questions about the original problem and “Version 2.0” as “uncomfortable,” with the uncomfortable questions being “Are only men and women married?” and “No same-sex marriage here?” (Nabb et al. 2020, p. 693). What about these questions is uncomfortable? Describing the questions in this way is a microaggression, even if unintentional (Nadal, Issa, et al. 2011). Queer people experience such microaggressions frequently when we are asked to conceal/discard elements of ourselves for the “comfort” of straight/cisgender people. We are often made to feel that not doing so (hiding or muting our queerness) will make us physically or emotionally unsafe (Nadal, Wong, et al. 2011). In extreme cases, a straight/cisgender person’s “discomfort” has been used as a valid defense for the abuse/murder of LGBTQ+ people in the form of the “gay/trans panic defense” (Woods, Sears, and Mallory 2016). The trauma of these experiences is undeniable.

My next concern was about Version 2.0 of the Condo problem, which includes the statement “For simplicity, assume that each man is married to only one woman and vice versa” (Nabb et al. 2020, p. 693). To their credit, the authors acknowledge that their revision remained exclusionary (I would also argue it reinforces messages received by queer people that we are complicating things by requesting acknowledgment or asking for “extra,” rather than *basic*, equality); however, their justification

for their extended use of the revised version is problematic. They write:

The experience of solving the Condo problem is a difficult one to replace because it is a nonroutine problem that involves interesting mathematics. . . . The common numerator approach is so interesting that it is hard to drop this problem from PSTs' mathematical experiences because it brings out important distinctions between the fraction and ratio ideas—hence, the dilemma in wanting to preserve this problem in our lessons, despite its exclusive nature. (pp. 694–695)

Intent and impact are very different things. As a queer person, this read to me as “the mathematics in this problem was so important and interesting that we *had* to knowingly disregard your humanity/identity/lived experience to preserve it.” Queer people are told time and time again that it is not our turn, we are making things difficult, or that something else needs to take precedence over our humanity. Such exclusions and emphasis on preserving mathematics over someone's humanity may be a contributing factor to why scholars such as Greathouse and colleagues (2018) and Hughes (2018) have found LGBTQ+ people to be underrepresented in science, technology, engineering, and mathematics. Acknowledging a person's humanity/identity/lived experience should never be posed as a dilemma, and the feeling of unease felt by the authors' queer PSTs (noted by Nabb et al. 2020, p. 696) should never be ignored.

I understand why the authors have framed their article to emphasize their struggles with the original Condo problem and Version 2.0. Mistakes, after all, are valuable sites for learning; however, there is a line between (1) taking ownership of the harm caused by your mistake so that you may learn from it and (2) trying to provide justifications for why you kept making a mistake that you knew was a mistake. The authors appear to be attempting the former when they say, “Problems like the Condo

problem strike feelings of inadequacy and exclusion with respect to gender expression, gender identity, and sexual orientation” (Nabb et al. 2020, p. 696); however, that attempt falls flat when just a few sentences later they write, “We have concluded that to continue using the Condo problem is irresponsible. Although we have known this for *years* [emphasis mine], we did not have the required tools to determine a meaningful pathway to change” (Nabb et al. 2020, p. 696). This statement, combined with the previous remarks justifying the extended use of the original problem and Version 2.0, even though the authors knew the problems were exclusionary, seems to accomplish the latter (trying to justify why they kept making a mistake that they knew was a mistake). These feel like excuses, rather than ownership of the full weight of trauma that such problems inflict on queer students—trauma queer folx experience again and again when people (especially teachers) continue to ignore/deny our very existence.

Another trauma experienced by queer people comes from messages we receive about our morality or “goodness.” Such messages are also considered microaggressions (Nadal, Wong, et al. 2011) and are often justified with religious doctrine. Being regularly told that there is something wrong with us or that we are perverse (i.e., immoral) can have detrimental effects on the mental health of LGBTQ+ people (Beagan and Hattie 2015; Gibbs and Goldbach 2015). In many instances, anti-LGBTQ+ religious beliefs lead to LGBTQ+ people being rejected by their families. Such rejection contributes to higher rates of homelessness for queer youth (Robinson 2018) and family estrangement for queer adults (Beagan and Hattie 2015). For me, the authors unknowingly invoke this trauma with their statement that “we are aware that in everyone's eyes, *inclusive* may not be the same as *morally correct*” (Nabb et al. 2020, p. 700). This statement was likely made to acknowledge the previously noted tensions between religion and LGBTQ+ identity. Although some teachers and students may hold such views, the

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statement does little to address these tensions in any meaningful way. Instead, Nabb and colleagues have unintentionally perpetuated a damaging message queer people commonly hear—that it is OK (normal even) to question our morality.

The concerns expressed here should not be taken as criticism of Nabb and colleagues, but instead as critical feedback from a member of both the LGBTQ+ and mathematics educator communities. My hope is that this feedback proves useful to the authors and the larger mathematics education community as we continue

to explore ways to support our LGBTQ+ students. I believe that acknowledging the authors' good intentions and expressing gratitude to them (as well as the journal) for engaging in the important work of affirming and supporting LGBTQ+ students are essential. Knowing that there are educators out there (queer and nonqueer alike) who are willing to engage in and with this critical work is heartening. I also believe that we all have room to learn and to grow as we work to make our classrooms more equitable for and inclusive of LGBTQ+ students. —

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