

BOOK REVIEW

Choosing to See: A Framework for Equity in the Math Classroom by Pamela Seda and Kyndall Brown* (2021)

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Received: November 2, 2022 / Accepted: January 8, 2023 / Published online: March 31, 2023

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Abstract

Choosing to See: A Framework for Equity in the Math Classroom is a book intended to be a practical tool for teachers to build empowering mathematics classrooms for their students from marginalized groups. Pamela Seda and Kyndall Brown provide concrete guidance using seven key principles, the ICUCARE (pronounced “I See You Care”) Equity Framework, to provide a pathway for teachers for how to meaningfully make their classrooms a more equitable space for all students.

Keywords Equity, Mathematics teaching, Mathematics learning, Social justice

I. INTRODUCTION

Access and Equity is one of six guiding principles that form the foundation of the National Council of Teachers of Mathematics' publication *Principles to Actions* (2014). The "vision of access and equity requires being responsive to students' backgrounds, experiences and knowledge when designing, implementing, and assessing the effectiveness of a mathematics program" (pg. 60). But is this vision possible? How can teachers be responsive to students' experiences and backgrounds while planning and implementing a mathematics curriculum that already seems to call on teachers to do so much.

Authors Pamela Seda and Kyndall Brown wrote the book *Choosing to See: A Framework for Equity in the Math Classroom* (2021) to be a practical tool for teachers to build empowering mathematics classrooms for their students from marginalized groups. The book describes an equity framework that assists teachers for how to meaningfully make their classrooms a more equitable space for all students. After reading this book, I found the content to be a significant addition to the conversation about how to make culturally relevant pedagogy a reality. Below I give a brief introduction about the how the book is organized, describe each principle that constitutes the equity framework, and then provide recommendations from the authors about how teachers can get started with it.

What is the Equity Framework

The book was organized around seven key principles that constitute the equity framework. These are: 1) Include others as experts; 2) Be critically conscious; 3) Understand your students; 4) Use culturally relevant curricula; 5) Assess, activate, and build on prior knowledge; 6) Release control; and 7) Expect more. These key principles represented a different chapter within the book. Each chapter began by explaining the meaning of each principle. It then provided an argument for why the principle was an equity issue. Each chapter also discussed what would happen when the key principle was not addressed in the classroom. Throughout the chapters are teacher and student stories illustrating main points, activities that teachers can try, and meaningful practical advice that can be implemented by teachers immediately to promote equitable spaces for all students. At the close of each chapter, were questions to consider and a call to action that asked readers to list ideas that were learned or were relevant to a teacher's practice.

In the chapter about the principle Include Others as Experts the authors describe this as "creating classroom environments that extend beyond the teacher as the sole authority to develop competence and confidence in others as experts, including the students themselves" (p. 20). The authors argue that explicitly teaching students how to work together in class may diminish the inequities that predictably happen, for example where some students are seen as experts and others are not. An instructional strategy the authors recommend is from Joseph Manfre's Edutopia article *How to Promote Productive Discussion in Math* (2020). In the article Manfre describes his Tiers of Understanding protocol that supports the inclusion others as experts. In tier 1 students complete the task on their own. Then in tier 2, students explain their process to complete the task to a partner. In the last tier, students empathetically explain the thought processes used by their partner

to complete the task. The students must listen to each other, trying to see if the other person could be correct. Using this instructional strategy, all students are responsible for sharing their thinking, not just a few who may have the answer. The authors also discuss the role of developing competence and confidence and other strategies for creating classroom environments that promote these aspects within students.

The second key principle called Be Critically Conscious, the authors discuss this as “taking the time to understand how negative stereotypes impact diverse learners and actively working to erase the effects of these stereotypes on the educational outcomes of marginalized students” (p. 44). This chapter makes the case for how negative stereotypes for marginalized students impact student performance and also how these negative stereotypes lead to a lack of interest in mathematics. The book encourages educators to be advocates for change by urging its readers to “implement a growth mindset classroom” (p. 59). This chapter also discussed how students frequently engage in negative self-talk. It made me reflect on how I could normalize negative self-talk by sharing times when I have done this. We could then talk about the recommendations from the book for overcoming the negative conversations we have with ourselves.

In the chapter about the third key principle, Understand Your Students Well, it explains “learn about your students, their families, and their communities for the purpose of improving instruction (not making assumptions)” (p. 65). Seda and Brown share when teachers understand their students, then they are able to see past labels and past statistics to students’ talents, strengths, and skills. “One problem that results from not understanding students well is that teachers tend to see marginalized students only in terms of their deficits and not their strengths. Deficit thinking is a natural result of negative stereotypes” (p. 69). One activity is a team building activity. Specifically, a teacher develops a social contract with a class of students with how they will treat others and how they want to be treated.

The fourth key principle, Use Culturally Relevant Curricula, is about “using instructional materials in ways that help students see themselves as doers of mathematics and help them overcome the negative stereotypes and messages regarding who is – and who isn’t – mathematically smart” (p. 87). Using culturally relevant curricula is an equity issue because when teachers do not use them students may not see themselves as someone who can be successful with mathematics. An example of culturally relevant curricula is Eric Gutstein’s lesson called “Driving While Black or Brown” (2013). This lesson explores mathematics concepts for probability through the context of racial profiling of people of color by law enforcement. This lesson struck me as a worthwhile activity since it allowed students to model with mathematics “to study the economic, social, and political conditions in their communities” (Seda & Brown, 2021, p. 106).

Assess, Activate, and Build on Prior Knowledge is the fifth key principle. This principle is about how teachers are to “value the prior knowledge that students bring to the classroom, both personal and cultural, and leverage that knowledge as a resource for creating new knowledge” (p. 114). Seda and Brown state, unfortunately, many teachers may wrongly assume their students are not familiar with a math topic, which may be due to biases or to negative stereotypes, and as a result do not attempt to figure out if they do know something about the topic. The use of low-floor, high-ceiling tasks are one way the

authors recommend effectively assessing, activating, and building on the mathematics students know. Another way to connect new knowledge to what students already know is to “project a picture or a graph related to the day’s topic and ask students to write down five factual statements about the picture and two questions they have about the picture” (p. 126).

In the chapter about the sixth key principle, Release Control. The authors describe this principle as “empower your students to take ownership of their learning by focusing on sensemaking and allow them to make choices about things that are important to them in the classroom” (p. 133). Releasing control is an equity issue because “traditional classroom structures that prioritize order and control often serve to preserve the inequities already prevalent in society at large” (p. 134). Offering students choices is a means to empower students to take control of their learning and to move the instructional focus from answer-getting to sensemaking. One way to offer choices is to include choice boards. “A choice board is a graphic organizer that allows students to choose how they will learn or demonstrate mastery of a topic” (p. 151).

For the seventh key principle, Expect More, the authors describe this as “hold high expectations for all students, and avoid deficit views of diverse learners” (p. 156). The rich instructional strategy Two-Minute Talks entails pairs of students turning and talking to each another, one minute each, about a given topic. The reason why this strategy aligns with expect more is because it does not allow low achieving students to opt out, namely all students know something about the topic and can contribute.

Getting Started with the Framework

The authors discussed teachers who desire to implement the principles of the book, share the framework with their students. Seda and Brown make the case, for example, that mathematics teachers who wish to have students see one another and themselves as experts may be perceived by their students that they did not want to help them. Again, this made me think of my own teaching, and the struggle that some of my students had in believing that I was on their side as I probed their mathematical thinking with questions, instead of telling them how to do a particular problem. The authors talked about how without the cooperation of the students, the intentions of a teacher may come across as demanding. The following is a student friendly version of the framework for high school students and can be adapted for students at any level (pg. 15-16).

- **Include others as experts** – Look beyond the expertise of the teacher to recognize your own competence and that of your classmates.
- **Be Critically conscious** – Understand how negative stereotypes impact the educational outcomes of students of color and actively work to erase the effects of those negative stereotypes in yourself, your classroom, your school, and your community.
- **Understand how relationships improve learning** – Get to know your teacher and classmates in ways that support the socio-emotional aspect of learning.
- **Use Culturally relevant resources** – Seek out resources that help you see yourself as a doer of mathematics and help you overcome the negative stereotypes and messages

about who is mathematically smart.

- **Assess, activate, and build on prior knowledge** – Value the prior knowledge that you bring to the classroom (no one comes as a blank state) and build on that prior knowledge to help you learn new things.
- **Retain control** – Take ownership of your own learning by focusing on sensemaking and not allowing others to GPS you. (Giving you step-by-step directions that make no sense, rather than giving help in ways that allows students to understand the process).
- **Expect more** – Expect more from yourself and your classmates by rising above the low expectations that other may set for you.

Due to the design of the book, the authors encouraged readers to consider using it as part of a book study or in a professional learning community. A suggestion from the authors was to study one chapter at a time. The questions at the end of each chapter could serve as discussion items. The teacher and student stories could also serve as discussion items. Additionally, teachers could try out some of the activities in their classrooms. Teachers could share student work, successes, and challenges with each other. Teachers could also use the call-to-action items at the end of chapter to set goals and then hold one another accountable.

II. CONCLUSION

Choosing to See encourages teachers to examine our opinions, ideas, and teaching practices for social justice and equity issues through the seven key principles in the Equity Framework. Throughout the chapters, I found the narrative giving me insight into my own teaching, instructional strategies I could implement, and lessons that I could use to allow my students to experience social justice mathematics. Seda and Brown's book provides practical ways that teachers can meaningfully and immediately make changes to provide opportunities for students who have historically been marginalized. I highly recommend every teacher, from all levels explore this book.

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