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# Educators as Active Designers of Equity

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## Introduction

Teachers and counselors—the educators who engage students most directly—are at the front-line of doing the work of equity. Rather than waiting for school boards to adopt an equity policy, for district administrators to create an equity vision, or for school principals to corral an equity team, front-line educators understand better than anyone else that:

- the need for equity is immediate and
- equity everyday means an equity mindset at every moment.

Being culturally responsive educators is more than just relaying academic content in the classroom (Hammond, 2015; Ladson-Billings, 1995). Educators are collectively responsible for proactively nurturing students’ academic, cognitive, social and emotional growth (Delpit, 2012). If equity is a core goal of our work as educators, *equity work* means actively removing structural, instructional, and curricular barriers that our students face, restoring their sense of self, and fueling their growth by testing out supports. For educators to implement equity *by design*, here are three main steps:

1. Reflect on your circle of influence.
2. Remove structural, instructional, and curricular barriers.
3. Reinforce structural, instructional, and curricular supports that work.

To describe these steps, I will weave in the lived experience of “Amy”—a high school sophomore and one of the few students of color in her advanced-level mathematics class. Although her name is a pseudonym, her experience is real and derived from empathy interviews (National Equity Project, n.d.) and research conducted with support from the National Science Foundation in schools in Virginia and New York. Amy has participated in virtual classes during COVID-19 using sketchy internet access and a school-issued laptop to stay afloat while her parents donned masks and reported to work each day.

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## Step 1: Reflect on your circle of influence.

Your ability to increase equity is a direct result of how you define and design your circle of influence. For front-line educators nurturing students every day, reflecting on your circle of influence really means reflecting on yourself and how you influence your students, your colleagues, and the learning environment overall.

To gauge your circle of influence, be honest. Without judgement, ask yourself:

- Am I available for my students to fit my schedule or my students' schedules?
- Am I interacting in a way that I wanted when I was a student, or am I seeing my students for who they are and interacting and teaching to their needs?
- Am I adapting curricular materials to fit with what I am interested in and what worked for me as a student? Or am I adapting materials based on who my students are and adapting to their needs?
- How am I showing each of my students that I care about their success? Am I initiating and following up with my students? Or am I waiting for my students to ask me for help?

By having these honest conversations with ourselves, we can start to peek into what it is like to actively support culturally and linguistically diverse students in our classes and schools.

Let's take a look at Amy's story. Although Amy maintained a B in the beginning of the year, she was feeling the pressure of the class. She contacted the school counselor to access support in math, but the counselor said she was doing fine with a B. This leads to an important point that Amy made during discussions—when students ask for help, listen to them and help them. Sure enough, Amy was right; her grades started slipping. The help that she needed and proactively requested did not occur.

The reality is that what we think we are doing and how it is received by our students can be quite different. This is why it is crucial to honestly reflect on your circle of influence and the

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priorities that it reflects. The message that Amy received was that the counselor’s and teacher’s needs were at the center of the circle—not the handful of students of color like her in the class.

## Step 2: Remove structural, instructional, and curricular barriers.

For educators to actively design equity, we first need to understand how students experience the status quo—inequity by design (Fischer et al., 1996). Instead of relying on long-term, after-the-fact, summative data such as test scores or grades or an elaborate system of exit tickets—just ask students.

Conduct empathy interviews with your students so that you—the designer—can understand what it feels like to face barriers. Barriers that students often face can be categorized into one of three types: structural, instructional, or curricular (see Table 1).

Identifying barriers is not about calculating performance gaps or monitoring student progress within a specified amount of time. Instead, it is about conducting empathy interviews with student outliers—those students who exceed attendance, grade, or participant expectations and those students who have yet to meet them. When conducting empathy interviews, be sure to use open-ended inquiries, such as “Tell me about a great experience you had at school” and “Tell me about a bad experience you had at school.” The goal is to push for the *why*, not the *what*. When a student shares a good experience, ask *why* that was a good experience. Understanding *why* will help you discover the deeper emotional connection students have to learning and the types of barriers they face.

**Table 1: Three types of barriers that students face**

Types of barriers	Description of barriers	Examples of barriers
<b>Structural barriers</b>	Structure comprises the formal and informal rules on how we “do” school. Students encounter structural barriers when there is a mismatch between the rules and learning goals, experiences, or outcomes.	<ul style="list-style-type: none"> <li>• Grading policies that emphasize compliance over learning</li> <li>• Course request forms requiring teacher signatures</li> </ul>
<b>Instructional barriers</b>	Instruction entails an educator’s intent and actions to support students in their learning. Students encounter instructional barriers when they feel there is not enough support for productive struggle when faced with learning challenges.	<ul style="list-style-type: none"> <li>• Reliance on summative data (i.e., grades, test scores, state assessments) to differentiate instruction</li> <li>• Defining teaching as relaying academic content instead of developing students academically, cognitively, emotionally and socially</li> </ul>
<b>Curricular barriers</b>	Curriculum comprises the content and activities that shape the learning experience. Students encounter curricular barriers when they cannot fully access or engage in the content, the activities, or both.	<ul style="list-style-type: none"> <li>• Using curricular materials directly from textbooks and workbooks without adapting or scaffolding</li> <li>• Planning activities that do not engage or excite students</li> <li>• Reliance on didactic and static lessons that use one mode of learning</li> </ul>

**Structural barriers that Amy faced.** In conducting an empathy interview with Amy, it was clear that she had been experiencing barriers across the board.

1. *Access to school counselors that fit the student’s schedule.* Amy noted that it often takes at least two weeks to see the counselor because, before COVID, the best time to visit – to avoid missing class – was during lunch. Students typically encountered barriers during visit attempts because counselors would be on their lunch break, the counselors available during lunch were not assigned to the student, and the wait time to see the counselor would run

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into the next class period. During COVID, when students attended school remotely, access to the school counselor was even more difficult because of the reliance on email and the lack of responsiveness from the counselors. While waiting for the school counselor to respond, Amy continued to worry that her grades were slipping, and she felt overwhelmed.

2. *Criteria for extra supports.* When Amy finally met with the counselor, she was told that she did not need support, because she was maintaining a B in the class.
3. *Encouragement to drop the course.* Amy said that the counselor encouraged her to drop the class if it was too hard. This left Amy feeling like she had no choice but to give up, since she had no allies to support her.
4. *Delay in receiving extra supports.* When Amy began failing her math course in mid-November, her teacher put her on a list to receive peer tutoring. In February, three months later, she was assigned a tutor. Amy stated that, “The school said they did not get my mom’s signed permission slip, but they didn’t even send it to us until much later!”
5. *Lack of access to course materials.* Amy did not have access to her textbook or formula guide. She did not even know she was missing these important classroom materials. When asked why she did not realize she was without the proper textbook, Amy said, “The only time we could pick up textbooks or other things at school was from 8-3pm, but my mom works. So the choice was either I miss school, or my mom misses work.”

**Instructional barriers that Amy faced.** Despite faithfully attending class and all available math office hours, Amy still found herself failing the course by the end of the semester. Amy stated that, “[The math teacher] would say, ‘If you aren’t taking these opportunities, then you are basically letting yourself down.’ I’m not going to let them say that about me, so I’m going to office hours and ask for help. But even when I did, it was not helpful enough!” For the instructional culture of the class, Amy explained, “It’s full of White students so I already have this [uncomfortable] feeling because they don’t understand me. So, when we would be in class, I never asked questions, because I was afraid that they would call me stupid.”

**Curricular barriers that Amy faced.** Amy accessed and completed a series of Algebra II problem sets from Canvas, an on-line platform. However, with no formula guide and no textbook, she



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fell further and further behind. As a result, although Amy started out with a B (80%), she ultimately ended the first semester with a failing grade (52%).

The thing with barriers is that once we identify them, we typically try to either tweak or transform them. It's actually easier and faster to just get rid of them and spend time reinforcing supports that work.

### Step 3: Reinforce structural, instructional, and curricular supports that work.

Because of Amy's failing grade, she was placed in a peer tutoring program that another math teacher sponsored. Through this program, Amy experienced supports that worked. In practice, the only way to know if a support actually works is to collect, analyze, and monitor data that captures students' academic, cognitive, emotional, and social growth. For maximum effect, data should come from multiple perspectives, modes, and time points such as teacher observations and student empathy interviews to generate a well-rounded view of student development.

**Structural supports that work.** Within the circle of influence of the peer tutoring program, the teacher sponsor and peer tutor reinforced supports to restore Amy's confidence.

1. *Access to culturally competent educators.* Amy's peer tutor was a Black girl. Amy confessed, "I was really afraid that I would get a White peer tutor because I thought I would just have to say, 'Yea, I understand it,' even though I didn't. I feel tense when I'm with someone who doesn't understand *why* I'm struggling. It's the lack of connection and them thinking that I'm lazy." Her peer tutor talked openly about how she too is the only student of color in her advanced-level math classes and what that feels like (e.g., needing to prove yourself constantly, feeling a spotlight on you, feeling implicit pressure to drop out).
2. *Access to course materials.* Amy had no idea that she did not have her course materials. When the peer tutor said, "Take out your formula guide," Amy was confused. What formula

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guide? While the usual process was to have the front office mail materials to the student (which takes over two weeks) or have the parent miss work to pick up materials between 8-2pm, the teacher sponsor hand-delivered the course materials to Amy at her apartment.

**Instructional supports that work.** Within the circle of influence of the peer tutoring sessions, the peer tutor gave immediate feedback and explicit instruction on meta-cognitive strategies. When Amy made an error in a mini-step to an equation, she was asked to discuss why she solved the problem the way she did to help the tutor identify potential knowledge gaps. This immediate formative feedback, coupled with a trusting relationship with the peer tutor, developed Amy's academic, cognitive, social, and emotional skills much more comprehensively than office hours and class lectures could have alone.

**Curricular supports that work.** The peer tutor adapted the homework worksheets to deconstruct equations into manageable chunks and show how each equation can be solved. This aligns with the idea that culturally responsive curricular materials focus on engaging student's cognitive development to scaffold information, use and practice newly acquired skills, and self-regulate through the learning process.

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## Conclusion

After three months in the peer tutoring program, Amy went from a failing grade (52%) to an A (98%). By the end of the year, Amy reflected:

Now I know I have the potential to do well in math, so I don't have to stress out about it. I was able to fill in the gaps of my knowledge that I was not able to get in class. Once I was able to fill in the gaps, everything fit together like a puzzle! Before, I felt like I was drowning underwater. Now, I feel like I'm floating on the top, with a little wave. I am literally doing better in math now than in any other class because of the assistance I got.

Equity everyday may not involve big systemic changes. In this case study of Amy, the circle of influence within the peer tutoring program allowed the teacher sponsor and peer tutor to identify and remove structural, instructional, and curricular barriers within their control. They did not have control over Amy's math teacher or counselor, school and district policies, or hours of school operation. They *did* have control over the supports they provided and the ability to assess and customize those supports to enhance the learning process. This active approach to equity had a significant impact on Amy and provided the basis for positive outcomes in both the short- and long-term.

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## References

- Delpit, L. (2012). *Multiplication is for White People: Raising Expectations for Other People's Children*. New York, NY: The New Press.
- Fischer, C. S., Hout, M., Jankowski, M. S., Lucas, S. R., Swidler, A., & Voss, K. (1996). *Inequity by Design: Cracking the Bell Curve Myth*. Princeton, NY: Princeton University Press.
- Hammond, Z. (2015). *Culturally Responsive Teaching and the Brain*. Thousand Oaks, CA: Corwin.
- Ladson-Billings, G. (1995). But that's just good teaching! The case for culturally relevant pedagogy. *Theory into Practice*, 34(3), 159-165.
- National Equity Design Project. (n.d.) Liberatory Design.  
<https://www.nationalequityproject.org/frameworks/liberatory-design>.

## Author Bio

Ryoko Yamaguchi studies how schools can act as a protective factor for at-risk youth, specializing in school and educator improvement. Dr. Yamaguchi has worked successfully to bridge the gaps between practice, policy, and research while communicating findings and building solutions with multiple education stakeholders. She is the author of *Adaptive Implementation: Navigating the School Improvement Landscape* (2017), a continuous improvement approach for educators to capture and learn from adaptations made in the field.