Transforming Thinking about Thinking: Designing for Neurodiversity
by Daisy L. Breneman

This Toolbox is dedicated to the memory of Dr. Terry Beitzel, a dear colleague and friend whose keen intellect, profound sense of responsibility to others, unique humor, and deep care made a positive difference in the world and sustained those of us lucky enough to have been touched by this incomparable human being. We miss you, and you continue to inspire us, Terry.

First, before you begin reading this Toolbox (which grew out of a Diversity Conference workshop from last week), take a moment: to breathe; to engage in contemplative practices; to do something that nourishes you; to feel gratitude, or sadness, or whatever you're feeling; to offer appreciation to someone you care about; to offer appreciation and care to yourself. In this space, and in all the spaces we inhabit, let's continue to prioritize empathy and care, and, as disability scholar Margaret Price urges, take accountability for meeting the needs of others. Caring, and learning, spaces from which all humans can benefit can result when we design for neurodiversity.

Neurodiversity is the reframing of what used to be thought of as "impairment" in terms, instead, of natural—and positive—human variation. While the movement started in the 1990s in the Autism community, many people (including people living with intellectual and learning disabilities, psychiatric disabilities, dysfluencies, and others) are claiming the label of "neurodiverse" or "neurodivergent" as a means of social and political liberation. Neurodiversity exists on a spectrum and challenges binaries and definitions of "normal" or "typical." It is contingent, and contested, and shifts based on time and context and unique experience. Many people can move into and out of, or along the spectrum of, neurodiversity. Throughout the pandemic, for example, many people are reporting variations in how minds are (or are not) operating. Designing for neurodiversity benefits everyone. This is not to minimize the daily lived experience of ableism that neurodiverse folks share, or to diminish the pain caused by navigating a world not designed for you. But it is to reinforce the value of acknowledging shared humanity and emphasizing the ways all of our liberation is bound together.

Embracing neurodiversity requires us to shift our thinking about the human mind, to embrace the wondrous diversity and variation. Thank goodness not all of our minds work the same way! By understanding, valuing, and actively seeking out the unique skills, talents, and insights of all people, we strengthen and transform all of our communities, including educational ones. To make progress, we must (re)design our physical and social spaces, including our classrooms, to reflect this understanding of human diversity, to create meaningful access, and to invite all participants to benefit from the inclusion of individuals with valuable contributions to make. But inclusion is not enough—we need to work toward true equity and justice.

For our teaching, this transformation can open up more profound learning opportunities for all. To make this shift, it's important to invest the time in reflecting on the physical and social spaces we create in our classrooms. The social models of disability recognize that it is our social and physical spaces that create barriers; interactional models further recognize the interaction of the disability and the environment, noting the problem of mismatch between the environment and the needs. Consider redesigning learning (and work, home, and community) spaces to recognize mismatch and work toward alignment. Some features that are particularly limiting include rigidity and inflexibility; dictating particular modes or pathways (e.g., requiring a written essay when other formats would allow students to better express their learning); reinforcing neurotypicality with word choice or representation (e.g., not including readings by neurodiverse folks, or using words like "crazy"); expecting students (and ourselves) to be fully functional in specific settings at specific times; emphasizing performance over process; and so forth.

For true transformation, we must also do some serious thinking about our own biases and privileges, no matter where we fall on the spectrum of neurotypical (does that even exist?) to neurodiverse. It's important to both recognize barriers, and to ask *what if*: What if we redesigned spaces that made everyone feel included, like they belong and matter, that their needs will be met, that they can fully participate and contribute*?* What if we embrace feedback and being challenged, and challenging ourselves, to root out and dismantle ableism and intersecting forms of oppression? What if we redesigned our spaces so that all learners can express their gifts, engage in the learning process in ways meaningful to them, and demonstrate what they can do? What if we valued the unique dignity and possibility in each of the wondrous human beings around us?

But we can only redesign if we truly confront these barriers and ask the what if's. This careful reflection can be done individually, but often works best in collaborative spaces. Consider engaging in this kind of reflection in your unit, with your mentor/mentees, or with your students. Some prompts that can guide this reflection include:

- Consider which designs of your workspaces allow you to flourish and are a good match with how you prefer or need to work. What is it about those features that open up access for you?

- Is the way you work best the same way others in that space work best? Can those designs be modified, or adapted, to meet the needs of others? Are you accounting for diverse needs?

- Consider what barriers exist for you and others in your classroom and workspaces. What are the design elements that are a mismatch or misaligned with your strengths? The strengths of others?

- What is the purpose behind the policies and practices that create barriers? Is it meaningful, or just habitual?

- What if we addressed barriers and imagined new possibilities? How might we redesign our spaces to open up access for all?

Some general observations that come out of such reflections often include the following:

- [Universal design](#) reduces barriers by optimizing choice, flexibility, and adaptability

- Rather than forcing individuals to ask for accommodations or document a disability/neurodiversity (which siphons resources away from the learning and working), instead create proactive access, which is more equitable and just

- Maximize agency and choice

- Build in adaptability and flexibility

- Create multiple pathways for [engagement, representation, and action and expression](#)

- Seriously consider what time means in a particular context, and what the true purpose of a policy or practice really is (e.g., a timed test or assignment deadline)

- Provide opportunities and acceptance for error and failure (e.g., low stakes or ["do-over" assignments](#)); [celebrate failure as an opportunity for learning](#)

- Provide ongoing and meaningful feedback and scaffolding to break projects into manageable parts and build up to the more challenging or complex tasks

- Equity: serious attention to distribution of resources, and to power differentials in classroom spaces; asking who benefits and who is harmed by certain arrangements

But it's essential to take the time to do our own reflections on and applications of such concepts, to truly understand how they relate to our own contexts. And to do some real work and [self-education](#), and additional [reading](#) and thinking. Designing for neurodiversity isn't just about giving certain populations access; it's about the serious work of confronting and dismantling ableism and other intersecting forms of oppression. We have a lot of problems right now, and we need the kinds of solutions we can only find with the contributions of all individuals—especially those whose minds offer unique and varied and beautiful perspectives. We have the power to create the kind of change that not only transforms our learning, but transforms our world.

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