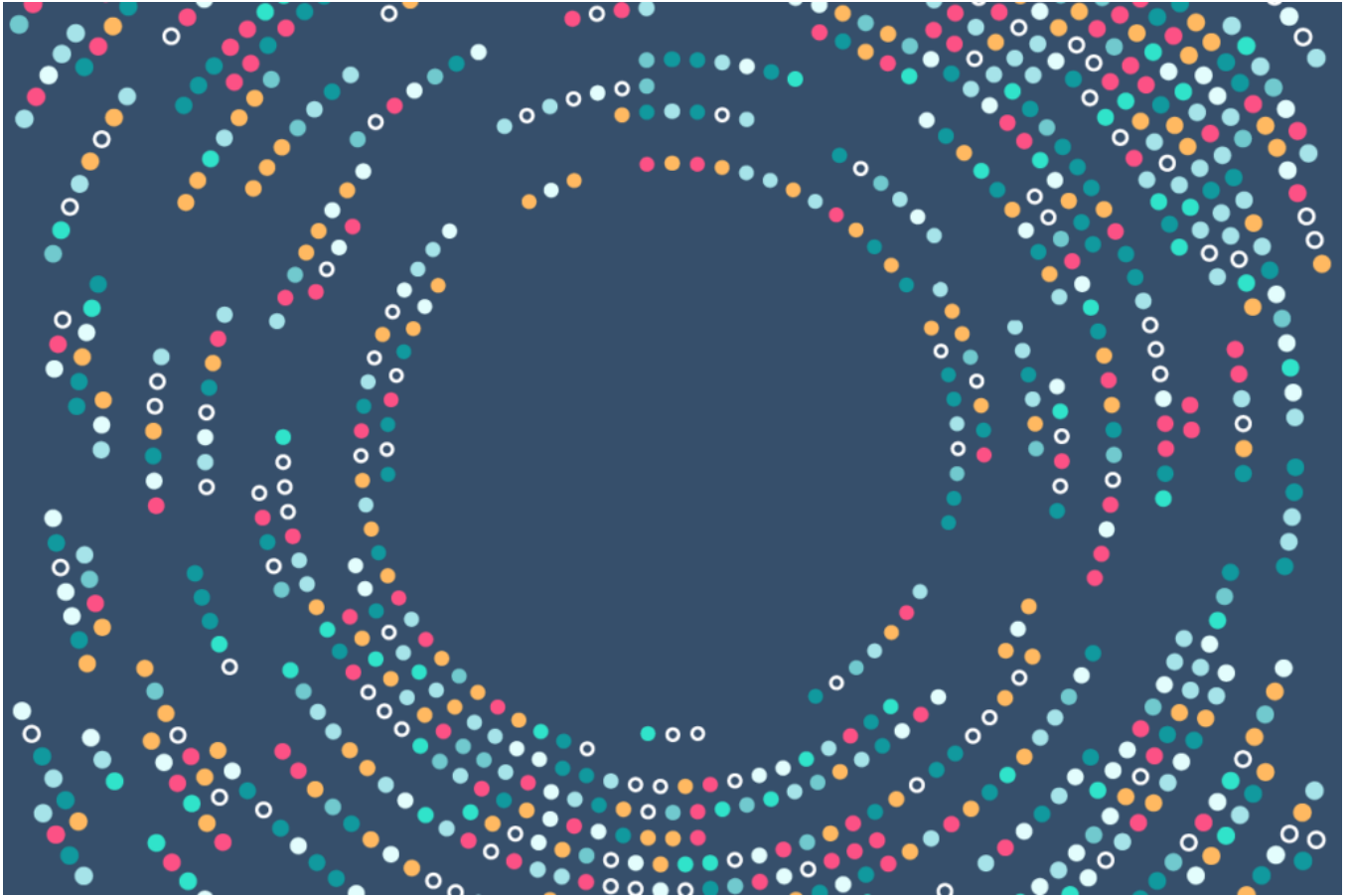


Universal Design for Inclusive Science

September 25, 2019



As the semester gears up, Introduction to Psychology students are going to start looking for ways to accumulate research participation hours. Most of us were Intro Psych students at one point in time. Twelve years ago, I was the nerd who eagerly started research participation early. As a blind person, I quickly found that many studies were unwelcoming. In some cases, the description on the research-participant-pool platform excluded me as a disabled student. When I would show up for a study, I would awkwardly rearrange the computer monitor and keyboard while the research assistants hung out and watched.

In this piece, I highlight a few resources intended to enhance the accessibility of nondisability-related research for disabled participants in the hopes that researchers of all kinds will find something to take back to the lab and try out.

Rethinking Disability-Exclusion Criteria

In the biomedical sciences, disability as an exclusion criterion is rarely justifiable, and such exclusion contributes to health disparities faced by disabled people. Any resulting innovations may not work for disabled people because they were not developed with data from disabled participants (Kroll, 2011;

Williams & Moore, 2011). If the central focus of the study is to examine processes such as sight, hearing, or movement, it may be justifiable to exclude participants on the basis of a specific disability. However, there would need to be strong justification for more research on those whose perspectives are overrepresented.

For those of us who use research materials that have sensory and motor features (e.g., visuals, sounds, reaction times measured with keystrokes) as a means of studying underlying cognitive or social processes, we may think of specifying our exclusion criteria to function-related cutoffs to avoid needlessly excluding disabled participants whose disability does not affect their ability to complete the task (Kroll, 2011; e.g., a blind person can participate in a phone survey). Such exclusion should also require justification because the disability is not directly related to the central constructs of interest.

Welcoming Diversity

Including information in a study description about how a study is accessible can draw potential participants who may have otherwise assumed that the study was inaccessible (Williams & Moore, 2011). Furthermore, researchers can include a statement in the consent form inviting participants to request accommodations so that participants need not disclose a disability (Rios, Magasi, Novak, & Harniss, 2016). Disabled and nondisabled participants may feel more engaged if they can request conditions that are best suited to their needs and preferences — having participants who feel comfortable translates to higher quality data for you (Rios et al., 2016).

Access to Your Study

As researchers, we may consider the accessibility of the paradigms that are typically used in our disciplines and devise alternatives, where necessary, to accommodate those with diverse needs and preferences, while maintaining (or enhancing) scientific rigor. We can often come to solutions that use little to no extra time and money (Kroll, 2011). When designing your study, you could choose materials that are inherently accessible in multiple modalities; you could also be prepared to provide modifications of study tasks, depending on how you ask your research questions and design your methodology (Rios et al., 2016). For example, if you are interested in participants' responses to text, you may prepare a version of your study that is accessible with a screen reader, which can read at a standardized speed just as text can appear on a screen for a standardized amount of time. You can collect data on how the task was administered and see for yourself whether your accommodation covaries with variables of interest.

The following resources can help you evaluate the accessibility of your study materials:

This is a simple checklist based on the Americans with Disabilities Act that can be used to assess for basic accessibility of a physical testing site: adachecklist.org/checklist.html.

This section 508 compliance checklist can be used to evaluate the accessibility of your electronic materials: hhs.gov/web/section-508/making-files-accessible/checklist/html/index.html.

You may be surprised to find that some of your study materials are more accessible than you thought. That would be a great thing to note in your recruitment materials and in publications. You can also consult with experts in accessibility (e.g., people with disabilities, rehabilitation counselors, people at

your institution who specialize in accommodations, external accessibility, evaluators and consultants). If you don't know how to provide accommodations, advice from experts on ways to enhance the accessibility of your research will complement your own expertise in research design and lead to a rigorous and accessible science.

Everyone Benefits

Building accessibility into your research can cost little to no extra time and money — you may even discover increasingly efficient ways to administer materials. Nondisabled people have benefited from accessible solutions in the past (e.g., texting on cellphones was originally an accessible feature for deaf cellphone users), and you will foster a more approachable scientific practice for the next generation of scholars. æ

References

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