Engaging Research Communities in Writing Studies

Ethics, Public Policy, and Research Design

Johanna L. Phelps

Fourth Interchapter: Collecting and Working with Census Data

Chapter 4

Don't be too WEIRD: Research for the Future of Writing Studies

Fourth Interchapter

Collecting and Working with Census Data

Designing research for the future of the field of Writing Studies is crucial as student needs and demographics, and institutional demands, shift. In this complex and global context, the major takeaways for this interchapter relate to the use of census data collection and external sites to contextualize Writing Studies research. Here are some topics I'll discuss and illustrate with my own research process:

- Soliciting and Collecting Institutional Review Board (IRB) Metadata
- Contextual Data and Useful Census Data
- Methodological Reflections

Soliciting and Collecting IRB Metadata

I initially grew curious about recruitment and retention during my time working as an IRB coordinator. I noticed, upon closing studies at the request of researchers, that many studies had not enrolled the quota the researcher had claimed was necessary to generalize to their target population or make qualified inferences based on the context of the research—I refer to these studies as *under-enrolled*. I was interested in what sort of recruitment methods researchers used and what their final enrollment counts were when they closed out their studies. In presenting this empirical metadata on IRBs and research, I focus on the closure of protocols approved under the expedited criteria, as these are projects that underwent review by board members. Either individual board members or the full board approved these research studies per the active policy at the time, 45 CFR § 46.110. I removed exempt studies from the dataset, as these are determined to be "exempt" from the more comprehensive demands of the expedited and full board criteria. Though exempt studies made up the majority of research filed by respondents in the IRBs and Writing Studies Survey, not all research we conduct is exempt. And this metadata is useful for all researchers. A glance at IRBs' data helps us better understand the broader regulatory and institutional frameworks that impact research with participants.

When researchers are ready to close studies that were approved by an IRB, researchers provide the number of total enrolled participants, as

well as information regarding publications, any unanticipated events, and other information of interest. I collected three pieces of information from study closures from the IRBs: (1) the number of expected participants researchers reported in their IRB protocol when it was approved, (2) the final number of enrolled participants, and (3) method(s) for recruiting participants.

IRB #1

For IRB #1, collection of one year's worth of closures ensured an equal distribution of closures to account for the ebbs and flows of the academic and calendar year with a variety of researchers. The collected closures only represent the studies reviewed and approved under expedited procedures that were closed during that time period at the researchers' request, or due to a force closure (when a researcher is non-responsive to IRB #1, their studies are terminated).

IRB #1 serves a mid-size, land-grant research university in the Western U.S. There are approximately 27,000 students enrolled (a little over 3,000 of these are graduate students) and 800 faculty; in fiscal year 2016, approximately 27% of the institution's revenue was generated by contracts, grants, and federal appropriations. I collected data from this Institutional Review Board from March 1, 2016 to February 28, 2017.

Because there is no medical school associated with IRB #1, the majority of research reviewed was minimal risk and approvable under expedited procedures—similar to some research with human participants in Writing Studies. During the same period of time, a substantial amount of research was determined exempt from the federal regulation by IRB #1. At this institution, like many IRBs that are accredited by bodies such as the Association for the Accreditation of Human Research Protection Programs (AAHRPP), these determinations are made by IRB staff. Therefore, the IRB has experience implementing the Common Rule with disciplines in the social sciences and humanities, as well as exempting research from the regulations. At the time I was collecting data, I would suggest this IRB was adapting to the era of hypercompliance (Babb, 2020), not due to any malfeasance on the part of researchers, but because of a shift in leadership.

For IRB #1, 127 protocols were closed by the IRB between March 1, 2016 and February 28, 2017. Ninety-eight were used in this analysis. To prevent a significant outlier from heavily skewing the data, I gleaned the final 98 via screening, which is exhibited in the PRISMA diagram in Figure 4IC.1.

The major outlier removed from IRB #1's dataset had estimated a necessary enrollment of millions of participants and did not come close to their enrollment target. This protocol was for a federal service program and the lack of enrollment heavily skewed the original dataset. As an
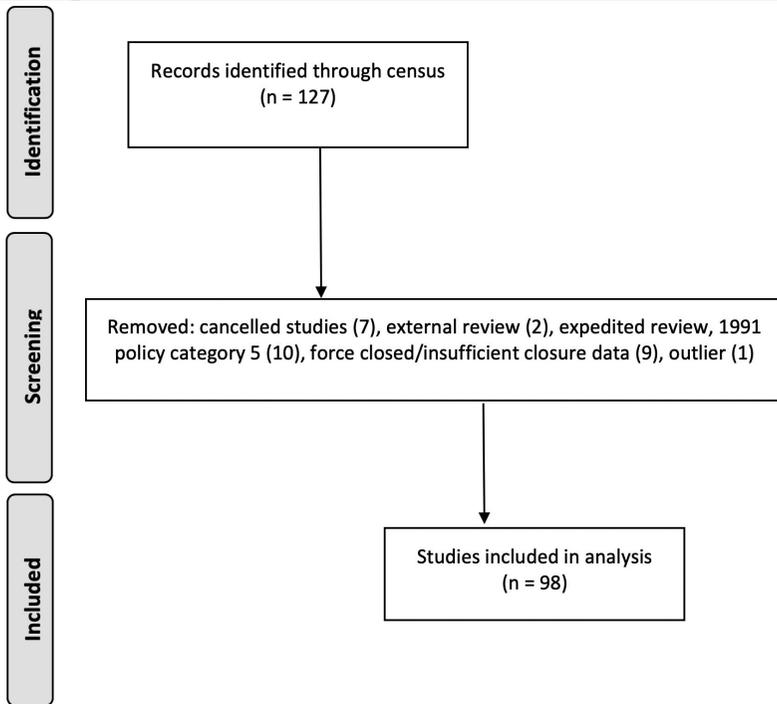
Identification

Records identified through census
(n = 127)

Screening

Removed: cancelled studies (7), external review (2), expedited review, 1991
policy category 5 (10), force closed/insufficient closure data (9), outlier (1)

Included

Studies included in analysis
(n = 98)

Figure 4IC.1 PRISMA diagram moving from 128 initial closures to a final set
of 98.

outlier, it was removed for the purposes of this analysis. The remaining
studies were removed to their categorization as cancelled, missing clo-
sure data, or because their review type did not contribute to the dataset
for these analytic purposes. With the final $n = 98$, the overall enrollment
rate (the number of participants actually enrolled compared to the num-
ber of participants required for generalization, per the researcher) for ex-
pedited studies closed during the collection period at IRB #1 was 76%.

IRB #2

IRB #2 provided census data to me in a spreadsheet. Given the size of
the IRB, I am fortunate I did not have to manually collect data. This IRB
is associated with a university hospital, medical school, and multiple
clinics. IRB #2 runs a home-built, sophisticated protocol management
database. I asked their IRB Director if it was possible to query the sys-
tem for my specific target information: IRB approval type, proposed
enrollment, recruitment methods, and final enrollments. They were able
to provide closure data for approximately eight years, ending in early

September 2018. Because this data cleaning process was more complex, I'll discuss briefly how I arrived at my final dataset of the 1,720 protocols used in this analysis.

The original spreadsheet had over 17,000 rows and each row was intended to represent a specific protocol. However, some errant html code was pulled in the data query and incorporated into the excel sheet. Additionally, protocols in the initial spreadsheet were missing information in one of the fields. I used Excel's "sort" function to collect only those protocols with digits—not ranges of digits or alphabetic entries—in the "# Approved" and reported "Final Enrollment" columns. The removal of those studies with a range or alphabetic entries is important to note, because further cleaning of this data could present a different range of enrollment. However, given the sheer volume of entries for this IRB, removing these during the first cleaning step still resulted in a robust and representative dataset.

This first sorting process also forced the erroneous lines of code to drop to the bottom of the sheet, and I was able to remove them. I removed retrospective studies and chart reviews, and cancelled studies (studies with 0 enrollment) as I did for IRB #1. I also removed all exempt protocols. What remained were 2,723 complete rows. When I ran initial calculations, it appeared that researchers who had their studies reviewed by IRB #2 had a dismal 15% participant enrollment rate. Again, these were researcher/principal investigator (PI) determined enrollment needs for studies to meet researcher's self-stated generalizability criteria. This dataset also excluded studies occupying any row that did not report all data completely, as was required for this analysis.

This ratio was astoundingly bad. I figured, as with IRB #1's dataset, there might be an outlier. However, once I sorted the data again, I realized there were, in many instances, duplicates or triplicates of certain protocols in the dataset. It was clear that data had been pulled from these studies' annual continuation reviews. I removed all duplicates and then, when a protocol was still duplicated but numbers in the "Final Enrolled" column were different, I removed those rows where the final enrolled amount was lowest (suggesting a study in progress). What remained was the final set of 1,720 closed protocols that were reviewed either by the convened IRB or with expedited procedures by IRB #2. In this final dataset, researchers at IRB #2's institution had a 44.5% enrollment rate in studies closed over an eight-year period. In the same time frame, over 800 studies were closed that had a reported enrollment of 0.

What the Data Indicate

The data suggest that these two very different, yet high functioning, IRBs are overburdened reviewing research that fails to achieve the promise of generalizability that the researchers outline in their proposed projects.

Based on this snapshot of data, IRBs regularly review research that both fails to enroll sufficient participants while at the same time also capitalizing on participants' goodwill without the promise of any contribution to the greater good. This, in turn, suggests researchers could be, in the worst-case scenario, designing poor research studies that involve participants with varying levels of risk without the possibility of benefit (violating the principle of beneficence).

Situating these concerns, which I take up in Chapter 4, within broader realities regarding the populations we do and will serve in our evolving demographic contexts presents a bleak outlook. IRBs, with their focus on broader issues of beneficence and justice, in particular, can serve as helpful moderators to determine how valuable research can be for the communities it is intended to impact. Beyond understanding this context for IRBs' review of research, it is imperative to be aware of other pressing concerns that IRBs increasingly find themselves addressing: specifically, the recruitment and engagement of diverse populations within research. Some IRBs take this work as part of their mission. Others recognize it as central but do not apply standards and defer instead to researchers. It is critical at this moment to have a disciplinary approach to diversity and equity—both matters of justice—as we design research and work with our IRBs. The next section provides context for the collection and use of further census data that will shape the generalizability and transferability of Writing Studies research with participants.

Contextual Data and Useful Census Data

In combing through larger sets of data for information about our future as a field, I turned to spaces like the U.S. Census and the National Center for Education Statistics. I rely heavily on the data generated by these organizations because the data clearly illustrate why diversity, effective recruitment, reproducibility, justice, and research design are such crucial spaces for discussion.

National Center for Educational Statistics data, a unit of the Institute of Education Sciences and the Department of Education, offer clear indicators of how demographic changes will impact our classrooms and research in the coming years. Between 2017 and 2028, we can anticipate increased representation of the following race/ethnicities in postsecondary enrollments (Hussar & Bailey, 2020, p. 25):

- Fourteen percent *increase* enrollment in Hispanic students (4 million, up from 3.5 million)
- Eight percent *increase* enrollment in Black students (2.7 million, up from 2.5 million)
- Two percent *increase* in enrollment of Asian/Pacific Islander students (1.4 million, up from 1.3 million)

- One percent *increase* in enrollment of students who are of two or more races (+5,000 students).

Additionally, the projections suggest decreased enrollments of white students (6% *decrease* in enrollments of white students: 9.9 million in 2028, down from 10.5 million in 2017) and American Indian/Alaska Native (9% decrease, from 138,000 to 125,000 in 2028). While 2003–2017 saw a 17% increase in growth (16.9 million to 19.8 million) in students attending postsecondary institutions, from 2017 to 2028, the data projections indicate only a 3% increase, up to 20.3 million. The demographic data suggest that the increased population we will see in the coming decade is more diverse that those cohorts who have come before in terms of race and ethnicity. These changes impact our ability to generalize and provide transferable findings from research.

Beyond education specific data on demographic trends, the U.S. Census also suggests that nationally our population will continue to change. The demographic shifts occurring outside of specific educational contexts will impact not only our settings in higher education, but also the applicability of research across spaces, communities, and populations. Our participant populations should adequately represent the populations the findings are intended to serve.

Methodological Reflections

We look for what we want to learn. We seek to understand in ways consistent with our worldview and our implicit assumptions about the populations to which we intend to generalize. For me, the most compelling sort of data is census data because it is an alternative to sampled data and thereby avoids important types of statistical bias. By census data, I mean the inclusion of 100% of data. This sort of data collection with human participants is notoriously difficult. A problem with census data is it can take a long time to collect, usefully record, and a tremendous amount of infrastructure and time to analyze. It's also not necessary to use census data if you are comfortable using an adequate sample. For instance, in Writing Studies, Card's (2020) article is a great example of how to effectively use a random sample to make claims that are generalizable with a reasonable margin of error and confidence level.

This particular collection of census data illustrates the precarious nature of IRBs' workloads, and this informs how we engage with IRBs. Many studies an IRB reviews will fail to meet researcher self-stated enrollment thresholds. The National Center for Education Statistics (NCES) data (de Brey et al., 2019; Hussar & Bailey, 2020) also show that the majority of students in our classrooms in the next 20 years will look so vastly and beautifully different from our current student population. At present, if we maintain status quo, we will be ill-prepared

to serve our future students and evaluate and improve the learning environments we care so deeply about. With these matters at the fore, in Chapter 4, I use the data shared in this interchapter to argue that a collaborative approach to IRBs and federal policy is now an imperative.

References

Babb, S. (2020). *Regulating human research: IRBs from peer review to compliance bureaucracy*. Stanford University Press.

Card, D. J. (2020). Off-target impacts: Tracing public participation in policy making for agricultural biotechnology. *Journal of Business and Technical Communication, 34*(1), 77–103.

de Brey, C., Musu, L., McFarland, J., Wilkinson-Flicker, S., Diliberti, M., Zhang, A., … Wang, X. (2019). *Status and trends in the education of racial and ethnic groups*. National Center for Education Statistics.

Hussar, W. J., & Bailey, T. M. (2020). *Projections of education statistics to 2028* (NCES 2020-024). National Center for Education Statistics.

4   Don't Be Too WEIRD

Research for the Future of Writing Studies

Institutional Review Boards (IRBs) are keenly attuned to local research contexts and communities. IRB members and staff can support Writing Studies researchers in the design of successful studies. Because IRBs are privy to researchers' study development, review, implementation, and closure processes, they have considerable insight to share. In this chapter I develop the following argument:

> Designing research for the future of the field demands researchers attend to the nuanced work of developing effective recruitment strategies and diversifying participant populations within feasible study designs that promote justice-driven results.

I develop this argument in three interrelated sections:

- The first section, "Are We Just (Re)Producing WEIRD Stuff?" offers an elaboration and brief histories of key terms including *WEIRD populations*, *recruitment*, and *reproducibility.*
- In the second section, "Implications of Two IRB's Closure Metadata" data from two IRBs illustrate how researchers' recruitment and retention strategies impact researchers' experiences with IRB review.
- The third section, "Research Design for the Future of the Field" is a reflection on our recruitment and retention behaviors as we design research for the future of the field.

Methodological frames developed and/or traditionally used in social science disciplines now circulate more widely in Writing Studies. Quantitative work, seen often in the very early years of the field (Poe, 2019) but less frequently since (Haswell, 2005) is now emerging as a crucial strand of considered inquiry. Alongside our increasingly multidisciplinary work, Writing Studies researchers are grappling with the attendant concerns of reproducibility of research and the diversity of participant populations. Both of these, as well as the engagement in empirical practice, are ethical matters. A heretofore implied, and now overt, premise of

this book is that there is an ethical obligation to conduct more empirical work with participants in Writing Studies. Elliot, in his 2016 theory of ethics for writing assessment, made plain the ethical imperative to practice empirical work (see, for instance, p. 221 and § 3.3.4). Outside of and beyond writing assessment work, the field of Writing Studies is one that impacts students, teachers, writing programs, and communities beyond the university. Given the consequences, dismissing efficacious empirical practices can be unjust. Reproducibility of research, a consideration for empirical researcher, is also an ethical concern. Reproducibility suggests that participants' contributions are used ethically through verified findings or that participants' contributions help retheorize a particular issue—if a study cannot be reproduced—to generate new strategies for addressing a social issue.

The ethical concerns of reproduction also are challenged by the lack of diversity in the populations under study. These issues correspond with our obligation to serve increasingly diverse populations with verified interventions. Research which enrolls a monoculture of participants, largely from a WEIRD (Western, educated, industrialized, rich, democratic) populations can potentially not be reproducible when applied to diverse groups. These concerns remind us that highly contextualized research is not often useful for broad implementation for pragmatic purposes, or replication and/or reproduction for verification purposes. Imperative, then, is our recognition of the impact research can and will have, and how this impact contributes to the public good.

Beyond the work we can do as researchers, it is important to understand that IRB representatives and researchers who responded to the RAND-NIH Survey introduced in Chapter 2 are overwhelmingly white (91.1% of chairs, 86.8% of members, and 74.3% of Principal Investigators [PIs]). This raises issues related to increasing diversity and equity in board membership and representation in research by minorities (Berry et al., 2019, p. 46). The whiteness of our local IRBs and the demographics of the researchers with whom IRBs work is a stark counterpoint to the populations we enroll to ensure our findings are useful across contexts and contribute to foundations for programs of study upon which the field can build—or, put more simply, generalize. Many researchers do not believe it within the IRB's purview to promote diversity in study populations (65% of respondents either disagreed or strongly disagreed this was the purview of an IRB [Berry et al., 2019]). And yet by enrolling WEIRD participants, and, among these populations, even more historically hegemonic demographics, researchers perpetuate findings that are not broadly applicable to other contexts and/or populations.

This chapter aims to strike a careful balance among reproducibility, generalizability, and the foundational ethical principles of autonomy, beneficence, and justice, and takes for granted that we have an ethical imperative to conduct empirical research in contexts where findings are

consequential for communities. All of these issues contribute in important ways as we work to increase the diversity of participants and design for reproducibility. To address these concerns, we can (1) diversify our participant populations, such that findings from research will provide successful interventions and innovations for the future of the field and (2) build and share robust research design and corresponding datasets in public forums in efforts to build a field more able to answer calls for reproducibility and transparency.

Are We Just (Re)producing WEIRD Stuff?

WEIRD-ness in research is an essential concept to understand because it informs national conversations about research ethics and research design, which further influence IRB review of research and our experience proceeding through IRB review. To understand why—beyond our field's desire to build better research for the populations we are certain to be supporting in the coming decades—let's take a wider and more comprehensive view of some concerns invigorating researchers working with participants in the U.S. Many of these considerations are over a decade old—e.g. Henrich et al. (2010) and Maxwell (2004). Noting that these constructs influence the same IRBs that review our work, and influence IRBs' understanding of the generalizability and the principle of beneficence weighed with potential risk, we can recognize strategies for situating our work as distinct from, or perhaps similar to, these types of projects.

WEIRD Populations

In 2010 Henrich et al.'s argument about *WEIRD populations*—that the vast majority of research findings are based on data collected from participants who are from WEIRD cultures (Western, educated, industrialized, rich, and democratic)—made waves in 2010. The opinion, published in *Nature*, suggested that this "common" population, widely accessible by researchers (who themselves are often also WEIRD) does not always generate findings that can be generalized across contexts. In 1994, the National Institutes of Health (NIH) articulated researchers' ethical duty to ensure their participant population was diverse (NIH Policy, 2001). The NIH requires that recruitment efforts and enrollment include women and representation of participants from all populations to which findings are intended to impact. This effort was a response, in part, to the recognition that in the all too recent past, marginalized populations were often disproportionately asked to carry the burden of largely dangerous research participation without any prospect of direct benefit—a direct violation of the principle of justice articulated in the Belmont Report and manifested in the Common Rule—which requires

that individuals who incur the burdens of participating in research should also benefit from the findings.

We are certainly caught between the context-specific nature of our work and our need to provide generalizable support to colleagues and communities. And no, we are certainly not generalizing, as some fields claim to be, to the whole species (Henrich et al., 2010). The concerns about the usefulness of our findings and the applicability of our interventions are contingent upon our context. We *do* context-specific research. In many instances when designed and implemented with justice-driven goals, this work can also be generalized within our field—and to broader institutional and demographic contexts—to support communities of practice and purpose, even if our populations are, for the most part, WERID.

Reproducibility

I use the term reproducible, rather than replicable, after drawing upon several conversations—from scholars such as Stevens (2017), Schloss (2018), Resnick and Shamoo (2016), and the Replicability Research Group (2020). When I use the term *reproducible* I mean that multiple researchers can arrive at similar results with similar tools and/or shared or extant data; this is not dissimilar to Haswell's representation of the "R" in replicable, aggregable, and data-driven (RAD) research in his 2005 article. However, unlike replicability, reproducibility does not demand that sufficiently similar conditions or tools be used to achieve exactly similar results in the multi-site practice of research. Rather, research that is reproducible allows for researchers to use similar methodologies, participants, and analyses to generate results to substantiate, or refute, prior findings. To draw a quick parallel to human biology—humans can *reproduce* offspring that are genetically similar to them, but humans do not replicate themselves.

Our discipline's understanding of these terms is usefully informed by the U.S. Department of Education's guidelines on replication and reproducibility work in research (Companion, 2018), which uses reproducibility to refer specifically to extant data (which I broaden in the definition offered above) but also distinguishes between *conceptual* and *direct* replication. Conceptual replication in this text is similar to reproducibility as I've discussed it here, but not practiced on extant data, necessarily. For the purposes of this project, I elide conceptual replication and reproduction, preferring the term reproduction to replication.

Why Reproducibility and Not Replicability?

In Writing Studies research, reproducibility is a feasible goal and, I argue, something we can easily build into our study design; we can generally

examine interventions not significantly impacted by time across contexts with similar tools and populations. Replicability, or the replication of results based on replicated contexts, however, is not feasible for the majority of Writing Studies research contexts, at present. To replicate—or run an identical study in identical contexts in hopes of finding exact replicas of results—is not easily done in most disciplines and is often best suited only for meta-analyses. When we are prepared to apply some best practices, such as the "replication recipe" by Brandt et al. (2014), replication may be a more achievable goal for the field.

At present, Writing Studies' first step can be to practice with reproduction, unless we are working with extant datasets toward replication. When we are collecting new data to address a research question addressed in another context, it can be near impossible to re-create exact contexts with participants; researchers simply do not have that sort of control over any research context. This suggests that reproduction, rather than replication, may be a more useful goal.

While reproducibility can be a feasible goal in many of our research settings, the Open Science Collaboration (2015) highlighted that researchers don't often pursue reproducibility because it is not incentivized. But they argue progress relies on both innovation (which is prioritized) and replication/reproduction work, because the latter both increases certainty *and* promotes innovation. Some researchers have suggested that since replication is not always feasible, metascience can begin to help us address these issues, too (Schooler, 2014).

Should We Only Do Reproducible Work?

No. I am not suggesting that we should begin reproducibility work on all research. Nor should we pursue only reproducible work. However, as we scale research and realize the implications of broader programs of study, we can work with our local IRBs to better understand how these connected issues influence the research enterprise more broadly.

A Brief Note about Pre-Registration, Study Databases, and Meta-analyses

Over the past ten years, our colleagues in social science disciplines have prompted researchers to build for replicability and reproducibility (Pashlers & Wagenmakers, 2012; Schooler, 2014). Alongside recommendations and, in some cases, requirements for pre-registration databases, updates to federal policy encourage us to consider strategic methods to build for reproducibility in our own discipline. Other changes in the shifting culture of research ethics include the calls to build discipline-specific, pre-study databases that outline the processes

and expectations for a given study (Resnick, 2016). This prevents data cherry-picking and promotes data sharing in ways that build more robust tools for connecting research agendas, honing in on timely questions, and revisiting long-standing "truths" to reevaluate claims. Alongside calls for use of tools that afford opportunities for big data collection and analysis, we, too, should consider disciplinary methods for consolidating findings and offering up datasets for validation and reproducibility. Renick notes that the goal of this sort of work is not intended to denigrate existing work or shame researchers. Rather, through this work we can better build knowledge by understanding effective methodological structures, questioning paradigms, and assessing how results are imbricated in findings.

And so, while our goal is not necessarily reproducibility in all research, we can be more careful when using language regarding generalizability and drawing conclusions. Establishing a network of qualified claims based on data begins with determining our sample and recruiting participants to ensure we are adequately representing the diversity of communities the work is intended to serve. Additionally, when we prepare findings for distribution and publication, attending to WAC's principles (Barnes et al., 2020) regarding sharing methods and context, toward the generalizability and transferability of research, is useful as the field builds programs of study. All of this work is enhanced by both methodological justice, or orienting our research around outputs and justice-driven goals, and methodological transparency throughout the research process.

Recruitment

Sugden and Moulson (2015) argue that recruitment is key to success in research because recruitment determines the final enrolled sample size, which is a vital consideration in its own right. The final sample of a study determines the generalizability of results and findings. Sugden and Moulson noted that differences in culture, race, and ethnicity all impact prospective participant behavior, which are influenced, at the outset, by prospective participants' experience of the recruitment process. In using recruitment variability to diversify their enrolled participants, Sugden and Moulson leveraged tailored recruitment materials to increase the diversity of participants. Yet research suggests recruitment is not prioritized by senior researchers (Patel et al., 2003) despite the understanding that the better experienced a recruiter is, the more likely hard-to-recruit groups will consider participating (Yancey et al., 2006), especially when informed strategies are considered in recruitment (Quintana et al., 2006). Scholars have also suggested it is imperative that recruiters are highly motivated (Fletcher & Hunter, 2003), which can be difficult for large and/or diffused study teams.

Synthesis

This empirical evidence, alongside publications in Writing Studies examining the importance of the recruitment and consent processes (Pigozzi, 2017; Wright, 2012), suggest it is reasonable to engage in robust, participatory, collaborative and context-specific strategies for determining effective recruitment strategies. In order to effectively recruit, researchers need to know the research population well enough to engage them effectively and without coercion. Front-ending study design with, at minimum, pilot studies or considered engagement with communities of inquiry, are effective means to understand how "small changes" frame prospective participants' engagement with recruitment messages (Sugden & Moulson, 2015). Ultimately, this sort of pre-study design work can helpfully inform our study design, and require us to elaborate often unspoken expectations regarding the research.

Tailoring our recruitment methods to involve diverse populations is vital as the demographics of our students and communities continue to shift and change in rapid and significant ways. While it is likely that enrollments will continue to fall among "traditional" students, given the low birth rate among this demographic in the U.S. after the Great Recession, National Center for Education Statistics (NCES) data illustrate the exciting changes influencing communities of practice and purpose in higher education. These changes are but a microcosm of the shifting demographic trends in the U.S. Should we remain entrenched in researching a traditional student body, we do a tremendous disservice to those we intend to and are intended to serve. At the same time, we should be cognizant of the issue of over-researching and tokenizing traditionally marginalized populations without offering direct benefit to individual participants or significant benefits to the community.

Developing a keen awareness of the limitations and affordances of our traditional samples can provide space for reflection, especially when we engage in novel study design, use new-to-us methods, or embrace methodologies with which we are not thoroughly familiar. IRBs can help us situate this work within broader research initiatives in our local communities and also bring their expertise as street-level bureaucrats to bear. Since the professionalization of IRBs in the early aughts in response to an era of hypercompliance (Babb, 2020), IRB personnel and members are often immersed in national conversations about burgeoning research strategies and ongoing challenges faced by researchers; these discussions are facilitated, for instance, by national organizations such as the Public Responsibility In Medicine and Research (PRIM&R) group and other grassroots platforms such as the Flexibility Coalition established by the University of Southern California. Given these initiatives and professionalization of the work conducted by IRBs, along with the sheer volume of

research reviewed by any given IRB, IRBs are excellent resources as we look to strengthen our research designs and expeditiously get research underway. Expediency, however, does not come without cost. In the next section, I'll highlight issues of time to and for review by IRBs with data surrounding the issues of recruitment and retention of participants. These data suggest that regardless of the WEIRD-ness of our participant populations, we should be cognizant of structural limitations in our study design; IRBs can help us identify and address such limitations.

Implications of Two IRBs' Closure Metadata

The data from IRBs #1 and #2 introduced in the Fourth Interchapter suggest that some studies are challenged to enroll enough participants to make generalizable claims, which make reproducibility nearly impossible. There are two interconnected issues here. First, studies that under-enroll based on researcher-stated, methodologically specific recruitment targets cannot, by researcher-defined criteria, produce generalizable knowledge. This means that participants were recruited and inconvenienced to participate in a study even though the data they shared is not of use for the particular questions under study. Second, under-enrollment and/or study failure should concern us because the number of protocols an IRB reviews, especially the higher volume exempt and expedited protocols, can result in delays for all other well-designed research that can offer benefits to society.

I want to focus first on the studies that reported enrollments of 0, meaning no participants were enrolled and the study was, for whatever reason, cancelled and unsuccessful. Both IRBs had studies that closed and some of these closures were due to failed funding (e.g. when an IRB provided a just-in-time review for, say, NSF funding but the funding was not provided). In both the surveys discussed in Chapter 2 65% of researchers whose research required IRB review had experienced delay of research due to review at least once. These delays may occur for a number of reasons. But consider: one efficient, well-staffed IRB closed 1,720 protocols that had enrolled at least one participant during a given timeframe. Concurrently, the IRB was closing protocols that did not enroll a single participant: an additional 804 protocols. This means the IRB had a ratio of two approved studies that ran—though, in more than half the cases, without generating enough data to generalize—to each study that was reviewed, approved, and closed without any recruitment whatsoever.

Incommensurate Complaints: Time-to-Review and Mission Creep

Beyond explaining some delays in the time to review, this data also directly addresses the concern generally referred to as IRB mission creep.

IRB critics suggest that IRBs should not be concerned with issues of methodology, structural soundness, or feasibility (Gunsalus et al., 2007; Schrag, 2010; White, 2007). Yet inattentiveness to these issues can result in a markedly high numbers of studies that are cancelled or fail because researchers and IRB reviewers do not perform the duties of analyzing feasibility. IRBs able to take the mission of participant protection to be part and parcel with feasibility, methodological soundness, and generalizability are able to better support researchers in pursuit of higher overall enrollment rate and lower percentage of studies that under-enroll. While there are any number of reasons for study failure, for IRBs to invest the energies and time in studies that do not run is a deeply problematic issue in relation to time and fiscal economies, to say nothing of the just-ness of the research itself.

Regarding the percent enrollment rate for each IRB, which was around 45% at IRB #2 and between 76% and 95% (accounting for studies with a stated enrollment range) at IRB #1: I believe the contrast between the smaller, primarily socio-behavioral IRB and the larger, multi-board IRB at a research university with a hospital and medical center, provide interesting areas of discussion for Writing Studies scholars. IRBs have access to tremendous amounts of metadata; whether or not it is easily accessible is another issue. Many scholars have called for more empirical research on IRBs (Sieber & Tolich, 2015). Folx complain about IRBs, like IRB #2, for issues related both to mission creep and time-to-approval. What the data above suggests is that we cannot demand both that IRBs approve rapidly *and* maintain a strict mission dissociated from methodological and feasibility concerns. For when we demand this, IRBs could end up reviewing a ratio of 1:1:1: for each successful study, a second study enrolled participants but not sufficiently to generate generalizable claims, and a third study was reviewed, approved, and enrolled no participants. For IRB #2, for every approved study that provided generalizable information, two did not.

Why Does the IRB Need Expected Enrollment Data, Anyway?

At this point, the question of why we have to justify sample sizes in qualitative methodologies may have piqued your interest. What if a large percentage of these studies resulted in publications, even though they were under-enrolled? And if they weren't published, what, aside from longer times to review, does it matter to Writing Studies researchers? Why does it matter that we establish sample sizes before we begin our research?

Of the 98 studies that were closed by IRB #1, researchers estimated they would need between 15,794 and 16,606 participants to meet the demands for generalizability in their studies. All together, they enrolled 12,712 participants over the course of their studies. Simply by the

numbers, this means that researchers enrolled somewhere between 76% and 95% of their total estimated population needed for generalizability. Recall from the Fourth Interchapter discussion that I removed any studies that had a range of participants for IRB #2, given the sheer volume of data. Therefore, IRB #2, an IRB with a wider scope of review, had a 44.5% enrollment rate among all studies with a stable expected enrollment number and a reported final closure number.

Despite the diverse ways to calculate a minimum enrollment needed to generalize to broader populations, these data suggest studies generally were under-enrolled at closure. These data were self-reported by researchers. By this I mean: researchers designed and submitted protocols to the IRB with sample sizes determined not by a specific positivistic framework or sample size calculator, but rather samples based on researchers' own methodological determinants to establish generalization inferences. It is worth noting again that IRBs are keenly aware that some research is intended to generalize widely across time or space to a small group of people. Other research may generalize to a large population in a specific geographic location. The generalization inferences of research depend upon the sample (and whether the sample was sufficient) and the data collected (and if enough data was collected) to make generalizable claims. Functionally, as exhibited by the fact that these estimates were just that—estimates—and were established by researchers, there is no battle to be fought about what a sample size should be. Instead, IRBs prefer for researchers to justify their sample size. Therefore, there are no constraints on the paradigms or methodologies that can easily be reviewed by IRBs. Rather, judicious researchers can adequately anticipate how many participants they'll work with to collect sufficient data within any given methodology. For qualitative work, where information about the required population size is not apparent in the early stages of research, researchers can rely on existing scholarship using similar methods to determine thresholds of participation. IRBs can help here, too, as they may have reviewed scholarship from similar methodological frameworks and can put researchers in touch with one and other about these matters.

IRBs understand that different paradigms and methodologies place demands on researchers to determine an adequate sample size. IRBs ask for enrollment information for two major reasons. First, so that reviewers can determine whether findings will be generalizable. A second reason is to ensure researchers are attending to the issue of social beneficence. So, for IRBs #1 and #2, thousands of participants were enrolled in research that was not, by definition, research. The findings from these studies could not be generalized. And yet, per the expedited review level, these studies were considered an investigation that, by its very existence, encroached on participants' autonomy, and presented some degree of risk, if even only minimal.

Recruitment toward Generalization as a Cornerstone of Ethical Research

We are a field that claims to generalize to communities of practice, purpose, and process to fulfill personal, departmental, institutional, and disciplinary missions across communities. With an increasingly global community and inclusive higher education environment, we are compelled to face the challenges of effective recruitment and retention of diverse communities. The effective recruitment of participants is a cornerstone of successful study planning and is often overshadowed by concerns related to consent, enrollment, and participation. Recruitment determines who is contacted, what participants' response rates are likely to be, and how likely the sample actually represents the population that the data is intended to generalize to (see, for instance, Bornstein et al., 2013). Moreover, recruitment, when done poorly or with inadequate preparation and implementation, can systematically exclude certain communities and overburden others (see, for instance, Clark, 2008; Sukarieh & Tannock, 2013). If there are, already, issues at the meta-level simply with recruiting enough participants (per the data from IRBs #1 and #2), the ability to produce generalizable information based on WEIRD samples, or samples of convenience, is predictably more problematic.

Our ability to design principled and transparent frameworks that will, in turn, allow qualified generalization inferences and research reproduction are informed by these issues of recruitment, retention, and participant diversity. For Writing Studies research that requires and receives IRB review, the approval letter does not suggest any level of rigor or a "rightness" of methods; indeed, IRBs are tasked to ensure the safety of participants (Whitney, 2016), not to police methods. That said, some IRBs do incorporate the work of methodological examination into review. These IRBs believe that merely approaching prospective participants is to encroach on their autonomy. There is always something lost, and not necessarily always something gained, when prospective participants are approached by researchers yet the research does not produce generalizable findings. Specifically, it is detrimental to the broader research enterprise and the public's trust in research and researchers—I discuss this further in Chapter 6.

What I am suggesting here, then, is that researchers' critiques often set up IRBs to fail. Researchers cannot expect IRBs to *not* address issues of methodology and feasibility and at the same time complain about time to review for any sort of study we may want to pursue. It is here I see a tremendous opportunity for researchers to work on the meta-analyses of IRBs, both outside and inside of Writing Studies. Because some IRBs' systems are not conducive to empirical meta-research, and we similarly lack robust frameworks for disciplinary meta-analyses in Writing Studies, I see similarities between Writing Studies and IRBs. There is a correlation between the lack of empirical data on IRBs and empirical data in Writing Studies, which results in critique to both. Unlike IRBs, however, Writing Studies' sustained existence is not required by federal policy.

Research Design for the Future of the Field

When we more clearly articulate our paradigms, methodologies, and methods, the infrastructure that enlivens our work—particularly IRBs—can be realized as, rather than a barrier, instead as partners and allies who offer constructive feedback and engage with active interest in our work. From my experience in many roles, IRBs invite this critical work and assign it great value. IRBs demand considered attention to what research will provide to the public. IRBs endeavor, when reading protocols, to understand the impetus behind decisions that could put prospective participants at risk—even if this is merely a researcher bothering them, asking if they are interested in participating in research. With such a mindset, IRBs serve as pilot tests for publics and provide scrutiny outside of our discipline that help us strengthen work on behalf of our communities.

Regardless of our methodological and paradigmatic orientation—and any perceived (or actual) incommensurability among these within our field—IRB review is concordant with our goals of honoring individuals' autonomy, demanding beneficent inquiry, and seeking justice. As the field grows, changes, and adapts to the new communities and demographics it serves, we can be thoughtful about creating deliberate study designs that emphasize diversity in recruitment and retention. A keen understanding of the impact of research for participants and future beneficiaries needs to be effectively articulated. Because of their bird's-eye view of local research contexts, IRBs can help us attend to these issues.

Accounting for Crucial Methodological Shifts in Writing Studies

It is crucial at this juncture to engage with the concerns circulating in our scholarship regarding the value of dismantling systematic oppression and creating new opportunity structures working both within and outside of our current research infrastructure—similar to the differentiation of ideal v. conservative justice described on p. 41. Because IRBs are part of existing infrastructure, I do acknowledge their utility may be fraught for some of our scholars on the frontlines of revisioning research for the future of the field. However, I see no incommensurability between these two approaches to justice. They are commensurate if they are oriented toward a similar vision of justice. One approach pursues justice via dismantling, wholesale, the predominant narratives around research. This is work done "with-out," and from outside, the dominant paradigm. The other approach seeks justice "with-in," by deploying existing tools within dominant paradigms to illustrate infrastructural injustice. Both strategies can be effective toward different ends.

Working with IRBs, and subscribing to the frameworks that require their review, is not without critique among methodologists both inside and outside Writing Studies. For instance, Walton et al. note in their

2019 book, subscribing to dominant, traditional models of inquiry can result in the continued marginalization of communities who have been already systematically disadvantaged by our current infrastructure. Similarly, Tuck and Guishard (2013), Patel (2015), and Tuhiwai Smith's (2013) vital decolonial scholarship question how researchers allow IRBs to "flatten" work with participants in many ways, including through the use of standardized informed consent templates, for instance (Patel, 2015, p. 15). Patel usefully draws upon the settler colonialist deference for ownership and expands this in discussions of data ownership and how this is mediated by IRB review (p. 36). These critiques prompt us to consider how we reinscribe settler colonialism through our compliance, and whether there are negotiable components in our work.

My work here to encourage folx to recognize the affordances of methodological diversity and understand the implications of sampling plans, generalizability, and retention are tied to the concrete reality of the economies in which we circulate, the transparency we wish to have in our work, and the necessity of engaging carefully with assigning generalizability claims to individual experience. Participating and engaging in disruptive models affords opportunity to begin dismantling marginalizing behaviors. Yet at the same time, to continue our work, we will necessarily need to attend to the constructs that maintain our ability to do so.

Even those methodologies and methods to which we look for dismantling the hegemonic discourses surrounding research are benefited by examining how confirmable they are in extended settings, how replicable they are in similar contexts, and how verifiable they are with individuals in corollary situations. Gomes (2018) wonders if "our work might be more impactful if more of us conscientiously adopted replicable, aggregable, and data-driven (RAD) approaches to social justice work." (402). His call, in a collection on social justice and writing assessment, implicitly recognizes the challenges of both dismantling something broken to build something new—with old tools. These debates are evergreen in our scholarship. Yet IRBs function outside of these disciplinary discussions and can lend a useful ear to researchers troubling with which strategy is best suited for participants.

Recalling the Roots of IRBs: Building Better from With-in and With-out

Regardless of paradigmatic allegiance, IRBs *exist* because of the considerable injustices brought upon communities who, to this day, continue to be disadvantaged and marginalized. The praxis of research ethics oversight demands tangible, actionable policy to protect those most vulnerable to further marginalization. I appeal, therefore, for those interested in critiquing IRBs to seriously consider why IRBs would impede the work we aim to do, recalling the epigraph from Pelmon's at the start of this book: "The IRB is not the sinister adversary of the virtuous scholar"

(2019, p. 82). From a policy and practice standpoint, IRBs exist for a very clear reason—to honor participants' autonomy, demand beneficent inquiry, and seek justice within the research enterprise. IRBs fill a gap in our social system, and are a check for researchers who are necessarily self-interested in the success and implementation of their research. The goals of IRBs resonate clearly with our own goals as a discipline, regardless of whether we aim to dismantle the system from without by way of new tools or from within. And moreover, IRBs are helpful partners for us as we recognize and act on the ethical imperative to conduct empirical work.

In Chapters 2 and 3, I established IRBs as participant advocates keenly trained to attend to issues of autonomy, beneficence, and justice. In this chapter, I've further illustrated that because of their bird's-eye view of our local research contexts and considerable experience reviewing and observing the realities of research, IRB members and staff are particularly well-equipped to support researchers. Whether they work with us in initial preparations, point out useful strategies for recruitment or retention, direct us to colleagues using similar tactics, or offer us insight into best practices for novel methods, IRBs are helpful collaborators in the research design process.

The datasets from two IRBs, alongside broader demographics trends and changes in communities, offer an impetus to design *with* participants for study success. As we design research for the future of the field, we can critically consider how we can diversify research populations so they most accurately represent the populations we aim to better serve. Moreover, we cannot further burden already marginalized populations. IRBs and research communities are essential partners in this process. Given Writing Studies' keen attunement to the reality that all research is context-specific, we should be able to clearly articulate a direct benefit to prospective participants or a tangible benefit to a broader community. In Writing Studies research, one of these two outcomes is necessary to fulfill the criteria of beneficence in research with human participants.

Methodological Justice and Transparency

What does this have to do with research for the future of the field? It depends entirely on what you believe the future of the field should be. I can suggest that these considerations, and engagement with IRBs, afford us a few advantages in the coming decades, as the results of the human protections policies in the U.S. are assessed, perhaps revised, and broadly implemented. First, with these issues in mind, we can address and understand the workloads and realities that IRBs face on a day-to-day basis. We can begin to understand how our work, while crucial to us, is one small piece of their function. Second, we can position our work and its broader application and generalizability within our local contexts. We can acknowledge the populations who

have been traditionally marginalized, ignored, or heavily recruited and, with this information, work with our local IRBs to ensure our prospective participant population is both diverse and large enough to help us answer research questions. Finally, IRBs are able to usefully observe the research enterprise in ways individual researchers cannot and with the added benefit of considerable remove. This makes them uniquely qualified to be frank with us about what we propose as benefits of research; these challenges are not, however, limitations. Instead, they are invitations for us to more fully share our vision for why the work is necessary. In such instances, methodological justice and the persuasive articulation of axiological principles are key to collaborative communication. Such an asset-based approach, which includes transparency about research goals in consideration of what is needed from participants, can all help researchers communicate more effectively with their IRBs.

But Is It OK To Be WEIRD?

So yes, it's OK to be WEIRD. Part and parcel with un-WEIRDing our samples and enrolling for generalizability is building for reproducibility. The NCES data on future enrollments in colleges and universities is unequivocal. National census data is unequivocal. For the benefit of communities, engagement in more reflective work is necessary. These considerations relate to who we enroll in research, how we recruit them, and whose and what ends that research serves.

   The longevity of our discipline relies on our ability to adapt to novel environments and populations and offer transferable findings for implementation across contexts. We can offer novel methodologies and use novel methods, but if our selection and enrollment criteria remain staid in the late 20th century, we run the risk of missing a paradigm shift. We can use traditional and new tools to interrogate, problematize, and evolve research practices to serve the public good. This work should always carry the hallmarks of justice-driven research, which imbricates all aforementioned considerations of reproduction, recruitment, and retention with keen attention to appropriately diversifying study populations—and practicing transparency in our publications about these issues and how we approached them through research design.

Summary

IRBs demand excellence of researchers *on behalf of participants*. Recognizing the many demands on IRBs, we can more effectively and efficiently get research underway if we articulate clearly to our local IRBs what we need to find out and why. This chapter broached issues affecting research with human participants across disciplines, paradigms,

contexts, and sites of inquiry. I focused here on two major issues of increasing importance for Writing Studies research: diversity and adequate enrollment of participants.

First, our disciplinary research would be strengthened if we continue to grapple with the issue of how to better represent the publics we aim to serve in our study populations. Second, we can also acknowledge that our IRB may review a number of studies that do not enroll sufficient participants to offer generalizable claims. The labor demanded of IRBs does come at a cost, including delayed time to review. For in the spirit of fairness and practicality and accountability, IRBs typically work on reviews in strategic, often chronological fashion. They are unable to triage based upon merit or feasibility. For these reasons and in such contexts, limited resources limit everyone.

Designing research for the future of the field demands we attend to these complex issues with balanced consideration. Taken together, these issues of recruitment, retention, and generalizability suggest that the state of research has challenges far greater than those experienced in any one discipline. In the Fifth Interchapter I discuss some of the major changes made to the Common Rule. Then, in Chapter 5, I parse out these updates and build upon all the concepts I've discussed to this point—from Writing Studies researchers' experiences and perceptions of IRBs to WEIRD populations to diversity to retention to generalizability to balanced review—and discuss major sites of research that will be impacted in the coming years by policy change and methodological evolution.

References

Babb, S. (2020). *Regulating human research: IRBs from peer review to compliance bureaucracy*. Stanford University Press.

Barnes, J., Conrad, K., Demont-Heinrich, C., Gradiano, M., Kowalski, D., Neufeld, J., Zamora, J., & Palmquist, M. (1994–2020). Generalizability and Transferability. In *The WAC Clearinghouse*. https://wac.colostate.edu/resources/writing/guides/

Berry, S. H., Khodyakov, D., Grant, D. M., Mendoza-Graf, A., Bromley, E., Karimi, G., … Newberry, S. (2019). *Profile of institutional review board characteristics prior to the 2019 implementation of the revised common rule*. RAND Corporation.

Bornstein, M. H., Jager, J., & Putnick, D. L. (2013). Sampling in developmental science: Situations, shortcomings, solutions, and standards. *Developmental Review, 33*(4), 357–370.

Brandt, M. J., IJzerman, H., Dijksterhuis, A., Farach, F. J., Geller, J., Giner-Sorolla, R., … & Van't Veer, A. (2014). The replication recipe: What makes for a convincing replication?. *Journal of Experimental Social Psychology, 50*, 217–224.

Clark, T. (2008). 'We're over-researched here!': Exploring accounts of research fatigue within qualitative research engagements. *Sociology, 42*(5), 953–970.

Companion Guidelines on Replication and Reproducibility in Education Research: A Supplement to the *Common Guidelines for Education Research and Development*. (2018). NSF and IES, U.S. Department of Education.

Elliot, N. (2016). A theory of ethics for writing assessment. *The Journal of Writing Assessment 9*(1). http://journalofwritingassessment.org/article.php?article=98

Fletcher, A. C., & Hunter, A. G. (2003). Strategies for obtaining parental consent to participate in research. *Family Relations: An Interdisciplinary Journal of Applied Family Studies, 52*(3), 216–221.

Gomes, M. (2018). Writing assessment and responsibility for colonialism. In M. Poe, A. Inoue, & N. Elliot (Eds.), *Writing assessment, social justice, and the advancement of opportunity* (pp. 201–225). WAC Clearinghouse.

Gunsalus, C. K., Bruner, E. M., Burbules, N. C., Dash, L., Finkin, M., Goldberg, J. P., & Greenough, W. T. (2007). The Illinois white paper: Improving the system for protecting human subjects: Counteracting IRB "mission creep." *Qualitative Inquiry, 13*(5), 617–649.

Haswell, R. H. (2005). NCTE/CCCC's recent war on scholarship. *Written Communication, 22*(2), 198–223.

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature, 466*, 29.

Maxwell, S. E. (2004). The persistence of underpowered studies in psychological research: Causes, consequences, and remedies. *Psychological Methods, 9*, 147–163.

NIH Policy and Guidelines on the Inclusion of Women and Minorities as Subjects in Clinical Research (2001). Retrieved from https://grants.nih.gov/policy/inclusion/women-and-minorities/guidelines.htm

Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science, 349*(6251), 943.

Pashler, H., & Wagenmakers, E-J. (2012). Editor's introduction to the special section on replicability in psychologoical science: A crisis of confidence? *Perspectives on Psychological Science, 7*(6), 528–530.

Patel, L. (2015). *Decolonizing educational research: From ownership to answerability*. Routledge.

Patel, M. X., Doku, V., & Tennakoon, L. (2003). Challenges in recruitment of research participants. *Advances in Psychiatric Treatment, 9*, 119–238.

Pigozzi, L. M. (2017). Negotiating informed consent: Bueno aconsejar, mejor remediar (it is good to give advice, but it is better to solve the problem). In L. Melonçon & J. B. Scott (Eds.), *Methodologies for the rhetoric of health and medicine* (pp. 195–213). Routledge.

Plemons, A. (2019). *Beyond progress in the prison classroom: Options and opportunities*. Conference on College Composition and Communication of the National Council of Teachers of English.

Poe, M. (2019). *Research in the Teaching of English*: From alchemy and science to methodological plurality. *Journal of Writing Analytics, 3*(1), 317–333.

Quintana, S. M., Aboud, F. E., Chao, R. K., Contreras-Grau, J., Cross, W. E., Hudley, C., …Vietze, D. L. (2006). Race, ethnicity, and culture in child development: Contemporary research and future directions. *Child Development, 77*(5), 1129–1141.

Replicability Research Group. (2020). *Home*. Retrieved from http://www3.tau.ac.il/replicability/

Resnick, B. (2016). *Social science replication crisis: Studies in top journals keep failing to replicate*. Vox. https://www.vox.com/science-and-health/2018/8/27/17761466/psychology-replication-crisis-nature-social-science

Resnick, D. B., & Shamoo, A. E. (2016). Reproducibility and research integrity. *Accountability in Research, 24*(2), 116–123.

Schloss, P. D. (2018). Identifying and overcoming threats to reproducibility, replicability, robustness, and generalizability in microbiome research. *MBio, 9*(3), e00525-18.

Schooler, J. W. (2014). Metascience could rescue the 'replication crisis.' *Nature, 515*(7525), 9.

Schrag, Z. M. (2010). *Ethical imperialism: Institutional Review Boards and the social sciences, 1965–2009*. Johns Hopkins University Press.

Sieber, J. E., & Tolich, M. B. (2015). *Planning ethically responsible research*. SAGE.

Smith, L. T. (2013). *Decolonizing methodologies: Research and indigenous peoples*. Zed Books Ltd.

Stevens, J. R. (2017). Replicability and reproducibility in comparative psychology. *Frontiers in Psychology, 8*(Specialty Grand Challenge), 1–6.

Sugden, N. A., & Moulson, M. (2015). Recruitment strategies should not be randomly selected: Empirically improving recruitment success and diversity in developmental psychology research. *Frontiers in Psychology, 6*(523), 1–11.

Sukarieh, M., & Tannock, S. (2013). On the problem of over-researched communities: The case of the Shatila Palestinian refugee camp in Lebanon. *Sociology, 47*(3), 494–508.

Tuck, E., & Guishard, M. (2013). Scientifically based research and settler coloniality: An ethical framework of decolonial participatory action research. In T. M. Kress, C. S. Malott, & B. J. Porfilio (Eds.), *Challenging status quo retrenchment: New directions in critical qualitative research* (pp. 3–27). Information Age Publishing.

Walton, R., Moore, K., & Jones, N. (2019). *Technical communication after the social justice turn: Building coalitions for action*. Routledge.

White, R. F. (2007). Institutional Review Board mission creep: The Common Rule, social science, and the nanny state. *The Independent Review, 11*(4), 547–564.

Whitney, S. N. (2016). *Balanced ethics review: A guide for Institutional Review Board members*. Springer.

Wright, D. (2012). Redesigning informed consent tools for specific research. *Technical Communication Quarterly, 21*(2), 145–167.

Yancey, A. K., Ortega, A. N., & Kumanyika, S. K. (2006). Effective recruitment and retention of minority research participants. *Annual Review of Public Health, 27*(1), 1–28.