

Student Subjects in Research: An Ethical Approach

Amanda Shen*

ABSTRACT

Students represent a vulnerable population within faculty-led research at universities because of the incentivized extra credit option. Therefore, other forms of participation in should be offered, to ensure that their choice to undergo becoming a student participant is fully their autonomous choice.

Keywords: Research Ethics, Students, Psychology Research, Undue Influence, Sampling

INTRODUCTION

Extra credit— two words college students love hearing. As an undergraduate student, I was no different. Ranging from subjects like chemistry to psychology to political science, there was no lack of extra credit opportunities in the courses I took to fulfill my social science major and pre-medical requirements. Participating in my professors’ research studies seemed to be a mutually beneficial opportunity at first glance; I would receive a few extra points to buffer my grade in case I did poorly on an exam, and my professors would be able to easily recruit the participants they needed to churn out scientific findings.

BACKGROUND

Social sciences research, especially psychology research, which has been labeled “the science of the behavior of the college sophomore,” routinely includes students. For instance, 77 percent of all articles in two major psychology journals included research done with students.¹ There is literature describing how common recruitment of students from undergraduate or medical school classes in the US is, a practice documented since the 1920s.² Indeed, students enrolled in the Psychology 10 course at UCLA, for example, are not just incentivized to do so, but in fact, are “required to serve as psychological research subjects for

* Amanda Shen, MS Candidate Columbia University

a total of six hours or write three abstracts on articles from psychology journals, or do a combination of both.”³ Professors widely use student participants in academic research because of their accessibility, convenience, and willingness to participate. However, such prevalent recruitment of undergraduate students as study subjects poses several ethical questions, necessitating more stringent regulation.

ANALYSIS

Incentivizing research participation with rewards may unduly influence students, tempting them to participate in research they would otherwise not want to engage. According to the Association for Clinical Research Professionals, undue influence “implies that individuals will agree to participate in research without a rational consideration of the information provided in the informed consent process”.⁴ Undue influence typically involves providing financial incentives to individuals in great need of money, but undue influence pertains to non-financial incentives as well. For instance, my general chemistry professor offered authorship promises to students who could travel to Mexico and bring back samples of alcohol served at resorts for his study, which aimed to analyze the chemical content of resort alcohol. More often, professors use extra credit as an incentive. Though such an incentive may not seem highly harmful, students who are worried or anxious about their grades are in a particularly vulnerable position and may very well fail to deeply consider the risks or implications of participating in research that offers extra credit. Especially in intensive courses that may be graded on a curve, additional credit may seem like an unspoken requirement rather than an option. This was the case in some of my undergraduate courses; my organic chemistry professor offered extra credit to students who completed writing assignments designed to measure whether writing explanations of chemical reactions affected student understanding and performance in the course. Unsurprisingly, the majority of students participated in the research study, seeing it as integral to their grades.

Furthermore, students are subject to an inherent, unbalanced power dynamic between themselves and their instructors. A student’s academic or professional standing may rely on the professor, who may boost grades or agree to write a letter of recommendation. Academic faculty members are on a payroll and thus retain a primary fiduciary responsibility to teach, educate, and protect their students.⁵ However, many faculty members also advance and develop new scientific and academic knowledge through research positions. In studies that have student participants, professors can experience a conflict of interest while exercising their roles as researchers and instructors. These dual roles are especially risky in a study when a student participant must divulge personal information, which is then accessible to the professor. Students ought to participate in research out of their own volition, without the added pressure of benefits and risks reflected in their grades, recommendations, or professor relationships.

It is also essential to consider the ethical principle of justice in this space and whether findings from the research using student samples are meant to be implemented in policy or clinical efforts within a broader, more diverse population. A 2010 study published in the journal *Behavioral and Brain Sciences* found that two-thirds of subjects in American psychology research were undergraduates studying psychology.⁶ This finding raises the question of how such a disproportionate sampling has impacted the effect of clinical psychology on populations who may not have similar levels of education or socioeconomic status as the average college student. In general, student samples have historically been much more homogenous than non-student samples, which often leads to difficulties in replicating findings in the general population.⁷ Nevertheless, researchers have an obligation to society to produce equitable results, and their research designs and sampling methods ought to reflect that.

I. Counterarguments and Benefits of Student Research

Granted, there is undoubtedly valuable research that seeks to study student populations exclusively, resulting in data relevant to student populations specifically. Additionally, critics may contend that research involving student subjects rarely poses major risks that call beneficence into question. One may also argue that research participation can be a helpful, behind-the-scenes learning experience for students to experience how to conduct research. Some studies and research designs involving students provide tangible benefits to students. For instance, studies that supplement current course material would provide valuable insight into key concepts and, thus, be acceptable.

II. Recommendations

So how can institutions and individuals better regulate and ensure ethical practices within this area which has gone relatively unchecked? First, researchers should make an effort to randomly select a diverse sample if they intend the research to have far-reaching implications. Student participants are certainly easier to obtain and more accessible, but as the Belmont Report states, “the selection of research subjects needs to be scrutinized in order to determine whether some classes are being systematically selected simply because of their easy availability, their compromised position, or their manipulability, rather than for reasons directly related to the problem being studied.”⁸ Academia must seriously re-evaluate whether students are being “systematically selected” simply because of their accessibility, through additional training modules or educational videos upon hire. This isn’t to say that research should completely exclude student participation; rather, researchers should make more of an active effort to recruit a variety of participants without solely targeting students through student-specific incentives like extra credit.

There are unique ethical dilemmas that arise with power imbalances and convenient sampling. Thus, research that necessitates student-specific sampling must be carried out and regulated carefully. Research incentives can still be offered, but any incentive involving extra credit should be coupled with a diverse range of alternatives that take a similar amount of time to complete. The ability to participate in and contribute to research is a privilege; working students may not be able to take time off to participate in research, so researchers should offer them some other compensated work that suits their schedules. Also, students and non-students should receive similar compensation, something impossible if extra credit is the form of compensation.

To avoid a conflict of interest, professors should avoid recruiting current students for their personal research. Separating roles may also address some pressing concerns about the confidentiality of subjects, who might feel more comfortable answering research questions without the fear of having their own professor read or listen to them. A much better method for enrolling student participants is to randomly assign students who have voluntarily signed up through an online platform to studies run by professors who are not directly related to the student.

During studies that use student participants, informed consent and attention to general research ethics are essential. From the start, students should be educated about informed consent and how power may alter the voluntariness of their consent. Students should also be clear about the incentives available to them, the risks of participating in such research, the ensured confidentiality of their responses, and their ability to opt-out of the study at any time. Even after the study concludes, students should be able to voice any concerns through an anonymous survey or hotline. Simultaneously, researchers and professors should debrief participants. Ultimately, these post-study efforts would increase the transparency of research

involving student subjects while furthering the field of academia by identifying areas of ethical improvement.

CONCLUSION

Currently, most universities and IRBs have guidelines for research involving student subjects and there are various federal and state regulations protecting research subjects.⁹ Yet students remain susceptible to a host of ethical issues, including undue influence, lack of justice, and the sense they would be penalized for opting out. With increased and standardized oversight initiatives such as the ones outlined above, universities can work towards ensuring a more ethical space for students to participate in and learn from the research efforts of faculty members.

¹ Burnett JJ, Dune PM. An appraisal of the use of student subjects in Marketing Research. *Journal of Business Research*. 1986;14(4):329-343. doi:10.1016/0148-2963(86)90024-x

² Prescott HM. Using the student body: College and university students as research subjects in the United States during the Twentieth Century. *Journal of the History of Medicine and Allied Sciences*. 2002;57(1):3-38. doi:10.1093/jhmas/57.1.3

³ "Sona Instructions for Undergraduate Participants • UCLA Department of Psychology." *UCLA Department of Psychology*, 14 Sept. 2021, <https://www.psych.ucla.edu/undergraduate/subject-pool-experiment-participation/sona-instructions-for-undergraduate-participants/>.

⁴ Borasky, David, et al. "Paying Subjects to Take Part in Research: A New Perspective on Coercion and Undue Influence." *ACRP*, 13 Mar. 2019, <https://acrpn.net.org/2019/03/12/paying-subjects-to-take-part-in-research-a-new-perspective-on-coercion-and-undue-influence/>.

⁵ Ferguson, Linda M., et al. "Students' Involvement in Faculty Research: Ethical and Methodological Issues." *International Journal of Qualitative Methods*, vol. 3, no. 4, 2004, pp. 56–68., <https://doi.org/10.1177/160940690400300405>.

⁶ Giridharadas, Anand. "A Weird Way of Thinking Has Prevailed Worldwide." *The New York Times*, The New York Times, 25 Aug. 2010, <https://www.nytimes.com/2010/08/26/world/americas/26iht-currents.html>.

⁷ Peterson, Robert A. "On the Use of College Students in Social Science Research: Insights from a Second-Order Meta-Analysis." *Journal of Consumer Research*, vol. 28, no. 3, 2001, pp. 450–461., <https://doi.org/10.1086/323732>.

⁸ Office for Human Research Protections (OHRP). "The Belmont Report." *HHS.gov*, 16 June 2021, <https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/read-the-belmont-report/index.html#xbenefit>.

⁹ U. S. department of education protection of human subjects. Home. <https://www2.ed.gov/about/offices/list/ocfo/humansub.html>. Published August 4, 2020; Students as Subjects. Massachusetts Institute of Technology COUHES. <https://couhes.mit.edu/guidelines/students-subjects>. Accessed December 2, 2021. Accessed November 28, 2021.