

GUIDELINES FOR ETHICAL CONDUCT

of Behavioral Projects Involving Human Participants by High School Students¹

Improving science literacy in the United States requires strengthening science, technology, engineering, and mathematics (STEM) education at the middle school and high school levels. Including a hands-on research experience element in the curricula of scientific disciplines is a crucial part of education in all STEM disciplines, including psychology. Research activities enable students to understand the principles and methods of scientific research in psychology. While engagement in research-based activities at the high school level may be purely educational in nature (that is, the activities do not generate new knowledge), such activities serve to improve science literacy. In addition to enriching the educational experience, engaging in research also enhances critical thinking, creativity, and original thought. Engaging in research also increases knowledge about the scientific process and introduces students to research career options. Furthermore, it provides an opportunity for students to gain firsthand experience about the ethics underlying research with human participants.

ETHICAL PRINCIPLES UNDERLYING HUMAN RESEARCH PARTICIPANT PROTECTIONS

Before beginning research projects, it is important that teachers who serve as research supervisors and high school students be knowledgeable about and respectful of the ethical principles underlying research with human participants. Experimentation and research with human participants have and continue to make tremendous contributions to improving people's lives. However, there have also been several reports of unethical research practices and abuses of human participants in research. It was in response to reports of such abuses in the early 1970s that the U.S. government established the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. In 1978, the Commission published the Belmont Report, which outlined three ethical principles that are meant to guide research conducted with humans.

- A. Respect for persons – individuals should be treated as independent agents, and individuals with diminished independence are entitled to special protections.
- B. Beneficence – individuals should not be exposed to harm or unnecessary risk, and any benefits should be maximized.
- C. Justice – individuals should be exposed to fair and equitable procedures, as well as fair distribution of costs and benefits.

Each of these principles, when applied within the research setting, places certain obligations on the researcher. The principle of respect for persons requires voluntary informed consent to be obtained from potential participants. The principle of beneficence requires the maximization of potential benefits and minimization of potential harms associated with participating in research. And finally, the principle of justice focuses on the selection of research participants, ensuring that some classes of people (e.g., persons on welfare, persons belonging to particular racial and/or ethnic minority groups, or persons confined to institutions) are not being systematically selected simply because of their easy availability, their compromised position, or their manipulability, rather than for reasons directly related to the research question being studied/investigated.

¹ These guidelines are scheduled to expire 10 years from (the date of adoption by the APA Council of Representatives). After this date users are encouraged to contact the APA Science Directorate to determine whether this document remains in effect.

FEDERAL REGULATIONS FOR THE PROTECTION OF HUMAN RESEARCH PARTICIPANTS

High school students who wish to conduct research with human participants should also be aware of the U.S. government regulations that pertain to the protection of human research participants. Typically, individuals conducting research with human participants at colleges and universities are required to comply with the Department of Health and Human Services, Office for Human Research Protections (OHRP) Code of Federal Regulations Title 45, part 46 (45 CFR 46). These regulations were developed to ensure that the rights and welfare of human research participants are safeguarded, through prior review of proposed research by a committee formed for this specific purpose. High school students who are conducting research projects that are intended for science fair exhibition or publication often must comply with the requirements of the science fair sponsor or publishing journal, which rely on the U.S. government standards and regulations. In addition, high school students and their teachers need to be cognizant of their own school district policies and procedures that may be informed by state and local laws about research being conducted by high school students and involving other students as participants.

AMERICAN PSYCHOLOGICAL ASSOCIATION'S COMMITTEE ON HUMAN RESEARCH

Because psychological research with human participants is essential to understanding human behavior and cognition, the American Psychological Association (APA) has established the Committee on Human Research (CHR), whose mission includes developing policies that help protect the rights and welfare of human research participants. To that end, CHR has developed guidelines, described below, for high school students conducting research with human participants. These guidelines were developed in accordance with the rules and regulations mandated by the federal government, as well as the APA Code of Ethics (APA, 2017), specifically standards that pertain to research and publication.

DIFFERENCE BETWEEN GUIDELINES AND STANDARDS

It is important to recognize that this document constitutes "guidelines," which serve a different purpose than "standards." Standards, unlike guidelines, require mandatory compliance, and may be accompanied by an enforcement mechanism. This document is meant to be aspirational in intent, and to provide recommendations for the professional conduct of specified activities. These guidelines are not intended to be mandatory, exhaustive, or definitive and should not take precedence over the professional judgment of individuals who have competence in the subject addressed. In addition, given the diversity of laws, regulations, and policies across countries, these guidelines focus only on U.S.-based research.

GUIDELINES FOR ETHICAL CONDUCT OF BEHAVIORAL PROJECTS INVOLVING HUMAN PARTICIPANTS BY HIGH SCHOOL STUDENTS

CHR recommends that students and teachers consider the following guidelines when conducting research with human participants:

1. Before beginning a research project, students identify a qualified faculty supervisor, who is expected to assume primary responsibility for *all* aspects of the research project. Specifically, the supervisor is:
 - a. Responsible for the conduct of the student researcher.
 - b. Expected to be familiar with the relevant research literature on the student's chosen topic, as well as the ethical principles for the conduct of research involving human participants.
 - c. If a well-qualified supervisor cannot be found at the student's own school, then the student may seek supervision from a qualified individual at another academic institution, including another school, college, or university, or at other types of organizations that have staff with relevant training (e.g., governmental agencies, private firms, or other nonacademic institutions).
2. Before beginning a research project, students and supervisors inform themselves of the ethics of research with human participants and relevant U.S. government regulations for the protection of the rights and welfare of human research participants. They should also be knowledgeable about and adhere to school district policies and procedures, as well as state and local laws regarding the conduct of research involving human participants.
3. Broad access to the internet and a proliferation of digital tools and technologies have made the collection and sharing of data for research purposes more accessible to both established and novice researchers, such as high school students. But it is important to note that:
 - a. Despite the deceptively impersonal nature of internet-based interactions, in almost all cases, digital information or data is ultimately generated by a person. Thus, the rights and welfare of human participants and their data, although sometimes challenging, should be protected by the judicious application of current policies and regulations, including federal, state, and local laws, and school district policies.
 - b. When using commercially available tools for data collection and data management, students should seek guidance from their respective schools on identifying and using the services of third-party companies whose products and data management policies have been adequately vetted and approved by the school or school district.

4. Before beginning a research project, students become familiar with the relevant research literature. This should include previous and current research articles pertaining to the student's research topic. Preferably, the student finds, reviews, and summarizes the pertinent scientific literature.
5. High school administrators and teachers are highly encouraged to form student/teacher/administrator committees to examine all research proposals and review their merit and procedures, including the benefits and risks and the informed consent forms and process. This committee will act in a similar manner to Institutional Review Boards (IRBs), which are convened at colleges and universities to provide oversight of research with human participants, and to ensure that such research follows relevant federal regulations and institutional policies for the protection of human research participants.
6. Students must submit a written proposal containing the following elements to the research review committee:
 - a. General and specific statements of purpose of the research project
 - b. The research design and analysis plan
 - c. Clear procedures and justification of the chosen method
 - d. The population being studied, including a description of protections in place to safeguard the rights and welfare of potentially vulnerable participants and communities. Teachers and research supervisors should be cognizant of sensitive topics and populations (e.g., child abuse, participants with cognitive impairments) that would not be appropriate for study by a high school student.
 - e. The process of obtaining informed consent from prospective participants, and if appropriate, permission from community representatives. In the case of minors, permission from their parents or legal guardians and assent from the prospective minor participant as required by federal regulations governing human research must also be obtained. The consent(s) should include the following elements:
 - i. Explanation of the purpose of the research, the time commitment expected of the participants, and a description of the procedures in a way that all potential research participants and parents/guardians can understand.
 - ii. Description of any expected benefits from participation.
 - iii. Description of any *foreseeable* risks of harm or discomforts from participation. In cases where the research participants are students themselves, they should not be exposed to any risk greater than the ordinary risks of daily life in school. Although students should not be conducting research that poses foreseeable risks of physical, psychological, or social harm to participants, procedures should be included to indicate what will be done to detect and remediate harmful effects.
 - iv. Clear indication that participation is voluntary, that the research participant can discontinue participation at any time, and that refusal to participate will involve no penalty. Opportunities to withdraw with minimum discomfort and stigma, especially with group activities, should be provided. Under no circumstances are potential participants to be exposed to ridicule, force, or excessive group pressure, or undue influence by offering compensation for participation that may be deemed excessive by local oversight bodies, such as an IRB. Undue influence should also be considered when high school administrators or teachers are involved in recruiting students. Furthermore, individuals should not be publicly identified if they choose or decline to participate.
 - f. Describe how confidentiality will be maintained. The confidentiality of the information collected should be preserved and maintained. This includes casual conversations, social media postings, and publication. In most research, the aim is to learn a principle of human behavior, not specific information about any person. For this reason, data should be collected without identifiers to protect the privacy of those who participate in the research. The research participant must be informed if it may be difficult or impossible to maintain full confidentiality about the information collected and be given the choice to not participate. Only with the participant's full agreement may the student researcher disclose identifiable information about the research participant. Participants should also be informed of the circumstances under which confidentiality may be broken, given state or local laws or school district policies.
 - vi. List the name and contact information of a person who can be contacted for answers to questions about the research project, research participants' rights, and/or report a research-related injury.
 - f. A contingency plan on steps that will be taken in the event that confidentiality of the data is inadvertently breached.
 - g. Once the procedures are completed, misperceptions about the research intent or procedures should be corrected through a debriefing session, especially in projects that used deception, if appropriate.
 - h. Describe who will be authorized to have access to the data, including faculty supervisors and other research team members, if any, as well as how the data will be analyzed, stored, shared, and coordinated with other individuals.
7. To ensure that confidentiality is maintained, data collected during the research project must be safeguarded by the teacher or appropriately destroyed.

8. Students, teachers, and research supervisors are encouraged to consult with the CHR at the APA. The Committee on Human Research can interpret and provide advice on adherence to these guidelines. In cases where school facilities cannot support advanced research by qualified students, the Committee on Human Research will try to assist students in identifying resources, including local faculty advisors. The Committee on Human Research may be contacted through the American Psychological Association, Science Directorate at 750 First Street, NE, Washington, DC 20002 or science@apa.org.
9. Schools are strongly encouraged to post a copy of these guidelines in a location where students can easily access them, including making it available online.

REFERENCES

- American Psychological Association. (2017). Ethical principles of psychologists and code of conduct (2002, amended effective June 1, 2010 and January 1, 2017). <https://www.apa.org/ethics/code/>
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- The National Commission for the Protection of Human Subjects in Biomedical and Behavioral Research. (1978). The Belmont Report: Ethical principles and guidelines for the protection of human subjects of research. Retrieved from http://videocast.nih.gov/pdf/ohrp_belmont_report.pdf

Guidelines for Ethical Conduct of Behavioral Projects Involving Human Participants by High School Students was updated by the American Psychological Association Committee on Human Research (CHR) from 2020 to 2022. Members of the committee were Jina Huh-Yoo, PhD, Valentina Ivezaj, PhD, Leah Light, PhD, Marguerita Lightfoot, PhD, Maria Marquine, PhD, Karen Saules, PhD, and Sangeeta Panicker, PhD (Staff Liaison). Inquiries about these guidelines should be made to the American Psychological Association, Science Directorate, Office of Research Ethics, 750 First St., NE, Washington, DC 20002, or via email at researchethics@apa.org.

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