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A Primer on Research Ethics in the Field of Gifted Education

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Abstract

Most organizations (e.g., institutions of higher education, K-12 school systems) that engage in research with human subjects have institutional review boards (IRBs; also known as research committees) responsible for the oversight of research activities to ensure the ethical treatment of participants. Professional societies such as American Educational Research Association (AERA) and the American Psychological Association (APA) have also developed ethical codes for research activities involving human subjects. Many journals, including *GCQ*, require that all research considered for publication is accompanied by documentation of review and approval by an IRB or other similar committee. The purpose of this Methodological Brief is to provide researchers, new and experienced, within the field of gifted education a brief introduction to the ethical principles that guide the decision making process of IRBs, to provide examples of what might be considered ethical code violations, and to offer suggestions for working through the review and approval process with IRB officials.[1]

Keywords

human subjects research, Institutional Review Boards

This Methodological Brief by Tonya R. Moon from the University of Virginia focuses on the three principles that guide decisions that Institutional Review Boards for the Social and Behavioral Sciences (IRB-SBS) make when considering the conduction of nonmedically invasive research with human subjects. This brief attempts to demystify the IRB-SBS process and help researchers frame IRB protocols so that research approval can be completed in more timely and efficient manner.

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Context

Navigating the IRB process can be a significant learning experience and can contribute to the quality of the research proposal (Ashcraft & Krause, 2007). For many the IRB process is a great hurdle with many false starts resulting in delays in implementation of research programs. However, it need not be. Understanding the purpose of the IRB and the ethical codes that undergird IRB decisions facilitates the approval process, and consequently, assists researchers in quickly overcoming obstacles so their research can be carried out in a timely manner.

The IRB Purpose: To Uphold Ethical Codes Involved With Human Subjects Research

Over the course of time, instances of unethical research with human subjects have been identified (e.g., the experiments of the Nazi war criminals as revealed in The Nuremberg Trial [1945-1947]; government-sponsored radiation experiments [1940s-1950s]; Milgram Experiment [1963]; Stanford Prison Study [1971]; "Tuskegee" Syphilis Study [1972]). Although these examples represent extremes in unethical research, and they are quite different from research conducted within the field of gifted education, all research, including research in educational settings, must be based on ethical principles that protect the participants in research projects. These principles form the foundation for research ethics and the basis of The Belmont Report (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research [National Commission], 1979) that led to the passage in 1981 of the Code of Federal Regulations for the Protection of Human Subjects (§ 45 CFR 46), also known as the "Common Rule."

Three major principles provide the framework for the "Common Rule" and provide baseline standards of ethics: (a) respect for persons/autonomy, (b) beneficence, and (c) justice. Table 1 provides a brief overview of these principles and example applications to research with gifted populations.

These three principles directly relate to five areas involved in the research process: (a) a study's purpose, design, procedures, and the numbers of participants; (b) analysis of foreseeable risks; (c) selection of potential participant

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Table 1. Three Basic Principles Regarding the Ethics of Research

Principle	Definition	Example application to research with gifted populations
Respect for persons/ autonomy	This principle articulates the informed consent (IC) process and specifically outlines the information to be provided to potential research participants. It ensures that potential participants understand the parameters of the research and makes explicit the voluntary nature of participating in any research project.	In conducting research on gifted populations, and on students in particular, researchers must seek and get student assent as well as the consent of parents/guardians. Assent/consent must be obtained in a noncoercive manner; that is, students and parents have the right to choose to not participate without negative repercussions. In addition, students and parents must be fully informed about all aspects of the research, including what will happen to the data once the study is completed. A graduate student researcher conducting an action research project in his/her own classroom as part of a master's thesis or doctoral dissertation may violate the principle of respect for persons. For example, simply because a school or school district has instituted a "differentiation within the regular classroom" program model, it does not translate into a requirement that students must participate in research on the program. That is, any parent/student has the right to refuse the use of data on that student generated as part of the instructional process for research purposes. A gifted coordinator who has access to data used in student identification or from an evaluation who is also working on an advanced degree would not have access to the data in the role of graduate student without seeking permission from the district to use the data for research purposes. Use of the data without permission violates the principle of respect for persons/autonomy.
Beneficence	The researcher has the moral obligation/duty to maximize the benefits for participants and to protect participants from harm or minimize harm. This principle focuses on the risks and benefits of a research study where the benefits can be to the individual, to society at large, or to both	The focus of any research conducted with gifted populations should be done with the best interests of participants of all ages in mind. Often researchers believe that what they are doing is in the best interest of students. Such an assumption may lead to the belief that all students should participate in the study, even if they do not want to or their parents do not want them to. In this instance, not respecting the students' and parents' autonomy is in jeopardy. This is especially problematic when researchers study their own theories or programs. Researchers often want to collect as much data as possible once they are in a study site. The time commitment of the participants for testing, interviewing, or completing forms may take too much time away from the priority of school (e.g., teaching, learning) and violate the principle of beneficence.
Justice	The principle of justice calls for equal sharing of the burdens of research by all who stand to benefit from it. There should be no undue burdens, emotionally, socially, economically, physically, psychologically, or professionally, and equal benefits should accrue across all populations participating in the research. In other words, the research must be fair to all those involved.	An example of research that might violate this principle in the field of gifted education is research studying enrichment. The question "Is enrichment only appropriate for gifted students or would all students benefit from enrichment" could be questioned. Evidence suggests that withholding certain types of enrichment from student groups simply because they do not have the label "gifted" is unfair; consequently, when such evidence suggests unfair application of treatment, the ethical principle of justice is violated.

population; (d) recruitment of participants—what they are told, the degree to which participants can understand information about the study; and (e) the treatment of participants—autonomy and privacy. An IRB's responsibility is to ensure that these principles are reflected in the design of the research study and that the proposed

study does not have the potential for violating the ethical principles. If the potential for violations exists, then the benefits (to the participants and/or society) must outweigh the risks. Because often no hard and fast rules exist for determining the risk/benefit ratio of any study, IRB members must use informed professional judgment (e.g., knowledge of the Belmont Report and Common Rule) and research context (e.g., classrooms) to determine if the risks outweigh the benefits.

Example Violations of Ethical Codes in Research Related to Gifted Populations

The most common areas for ethical violations in educational research with gifted populations are the treatment of study participants and at the data collection and analysis stage.

Treatment of Research Subjects

While the majority of research studies in the field of gifted education pose few, if any, dilemmas in terms of the ethical treatment of research participants, they can occur. Because of this potential, it is important to understand the ways in which these violations can occur so that care can be taken to ensure that the basic rights of participants are protected. First, it is considered a violation of basic human rights (i.e., respect for persons/autonomy) in a research setting, to force, or coerce, gifted students to do something against their will (including participation in the research study itself), to harm them (physically, psychologically, emotionally, or personally), to mislead them about a study (deceiving without debriefing if applicable), or to invade their privacy (loss of anonymity or confidentiality). For example, paying a teacher a stipend based on the number of gifted students who participate in a research study could be considered coercive. Letters written by central office administrators or building level administrators urging teacher/students to participate in a research study might also be considered coercive. It is important to distinguish this type of (coercive) letter from a letter of support. Central office and building level personnel can write in support of the research acknowledging that it has been approved by the appropriate district individuals/committees and that it falls within the goals of the district/school, emphasizing that teachers/students/parents have the right to choose not to participate without suffering undue harm.

Because gifted students could be considered a special population, additional considerations may be warranted when it comes to research studies. For example, when conducting research with underrepresented groups of low socioeconomic status, cultural, or ethnic minority gifted students, precautions should be taken to ensure that they do not feel singled out simply because they are "different." Conducting research in certain areas of social and/or emotional developmental or adjustment (e.g., perfectionism) with gifted students may warrant taking additional precautions. For example, in a study of perfectionism among gifted adolescents, the possibility exists that students with perfectionistic tendencies could become distressed. Hence, precautions, such as access to counselors or other resources helpful in dealing with an upset student, need to be in place to minimize the risks associated with participating in this type of research. Unethical treatment of gifted students in a research study might result when a study focusing on acceleration if acceleration results in an inappropriate fit (i.e., caused academic struggles) for a students and placing the student back with grade-level peers might cause undue emotional and social harm because of embarrassment on the part of the younger student. In this instance, it is important that there be evidence that the accelerated option is, in fact, the appropriate placement for the student. It is also important to recognize that research conducted in school settings with gifted students should avoid removing the students from instructional activities relating to objectives for which they would ultimately be held responsible (e.g., state assessments), without verifying that the students have already mastered the objectives.

Data Collection and Analysis

Ethical violations during the data collection and analysis stages range from careless procedures for data collection (e.g., untrained test administrators, not adhering to administration guidelines [e.g., time guidelines, incomplete directions]) to using psychometrically weak assessments to the manipulation of data or the complete fabrication of data. Manipulation of data includes the exclusion of particular cases so that statistical significance can be reached, failure to report results that contradict a stated hypothesis, or searching for particular statistical tests that would increase the probability of finding significance or a larger effect size. Although rare, there have been instances involving the more serious violation of ethical codes, that is, data fabrication (Al-Marzouki, Evans, Marshall, & Roberts, 2005; Cook & Bombardieri, 2005). The pursuit of knowledge and understanding about gifted populations must remain the goal of research not the production of research for personal gain (e.g., financial) or professional accolades.

The psychometric qualities of instruments being used in the research present particular challenges in ensuring adherence to these principles. The research should ask the following questions: Does the instrument have a high enough ceiling to avoid a ceiling effect that could result in the statistical artifact of regression to the mean? Does the sample used for establishing the instrument's norms include students identified as gifted? Are the minority populations under study included in the collection of data on reliability and validity of the instrument? In each case, failure to answer these questions appropriately can result in a waste of participants' time

because the data collected from the students and the inferences made from that data are questionable because of the lack of their representation in the sample(s) used for development of the instrument.

IRB Classification Categories for Human Subjects Research

Determining the risk classification of a research protocol is an important aspect of a review by the IRB. The classification influences the type of review (full board, expedited, or exempt), whether there is need for a certificate of confidentiality, the frequency of IRB review, and consent/assent requirements, among other factors. Table 2 provides a brief description of the different types of IRB review.

According to the "Common Rule," a research study can be classified as exempt in several ways. In the case of gifted education research, exemption status can typically occur through one of three routes: (a) research conducted in educational settings involving normal educational practices (NEP) (§ 101 (b) (1)); (b) research involving educational tests (cognitive, diagnostic, aptitude, achievement), surveys, interviews, or observations of public behavior, unless subjects are identified and disclosure of responses would involve more than reasonable risk (§ 101 (b) (2)); or (c) Research involving the collection or study of existing data that is publically available or unidentifiable (§ 101 (b) (4)) (e.g., anonymous survey, Trends in International Mathematics and Science Study data).

Normal Educational Practice: How Is It Defined?

In many instances, the research conducted within the field of gifted education can be classified as normal educational practice (NEP). Research classified as NEP becomes exempt from IRB oversight for a specific period of time (e.g., 4 years) and does not require researchers to collect informed consent/assent from parents/guardians and students. However, an information letter alerting student participants and their parents/guardians might be required. According to the Common Rule (CFR 45 part 46.101.b(1)) "research conducted in established or commonly accepted educational settings, involving normal educational practice . . ." can be exempt from IRB oversight. According to the regulations, NEP is defined as "(i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods." As part of this definition, it is important to note that some studies conducted in the field of gifted education fall under the category of NEP and others appear to be NEP, but are not because certain types of data collected are subject to particular state and federal laws (e.g., Family Educational Rights and Privacy Act, Protection of Pupil Rights Amendment). For example, conducting interviews, observations, or survey data that are beyond the scope of an educational activity being studied or collecting privileged (identifiable) information (e.g., free/reduced lunch status) are examples that would potentially move a study out of the exemption category into the expedited category, and thus, require the collection of informed consent/assent. The determination of NEP classification *should not* be made by the researcher but rather the IRB of the institution in with which the researcher is affiliated. Most institutions have institutional policies and procedures that outline the process for obtaining NEP classification.

Tips for Getting IRB Approval

In some instances, researchers work with IRB staff on a submitted protocol (the term used for the materials submitted for IRB approval) prior to review by the full IRB Board or individual board member. Successful interactions between the researcher and the IRB staff are characterized by (a) establishment of a positive and productive relationship with the IRB staff; (b) clarity in communication, both in the written protocol as well as in discussions with the IRB staff; and (c) the researcher's understanding of the intent of the ethical principles involving human subjects' research.

Positive Relationships

Researchers should enter into discussions with IRB staff with the understanding that in most instances, the staff's goal is to get a protocol to a stage where can it move through the review process with minimal "back and forth" between the IRB office, the IRB member(s), and the researcher. Suggestions for working toward this type of relationship are based on positive rather than defensive approaches to the conversation. Questions posed by the IRB staff are for purposes of clarification with no intent on the part of the IRB staff to stop the research or change the research completely. A successful IRB outcome will most likely result when the researcher asks for clarification about uncertainties regarding areas identified by IRB staff. Approaching the situation in a responsive mode rather than a reactive mode will have the greatest payoff.

Both earlier empirical work (e.g., Bell, Whiton, & Connelly, 1998; Gray, Cooke, & Tannenbaum, 1978) and recent work (e.g., Keith-Spiegel, Koocher, & Tabachnick, 2006) document a great deal of variation in implementation of federal regulations with regard to minimal risk research. Therefore, a researcher might find his or her research needing informed consent/assent based on the local IRB when researchers at another university do not receive the same judgment. It is important to remember that the local IRB is charged with interpretation for its unit; therefore it is incumbent on a

Table 2. Types of Institutional Review Board (IRB) Review

Type of review	Description[a]	Research examples
Full board	Any study involving greater than minimal risk including studies with vulnerable populations, sensitive questions, in combination with the real possibility of risk.	A researcher hypothesizes that adolescent juvenile offenders have above average creative abilities. As part of studying this phenomenon, the researcher will administer a series of assessments (e.g., cognitive ability, impulsivity, risk-taking tolerance) to the offenders. The sample under study is considered a vulnerable population and, as such, requires special precautions and review.
Expedited	Any study involving no more than minimal risk and falls within one of the seven expedited categories (e.g., collection of data through noninvasive procedures; collection of data from voice, video, digital, or image recordings made for research purposes; research on individual or group characteristics/behavior; research employing survey, interview, oral history, focus group, program evaluation, or quality assurance methodologies). It is conceivable to have a minimal risk study that does not fit into one of the expedited categories and therefore must undergo a full board review.	A researcher is interested in studying the promotion of friendship skills among twice-exceptional students. In this instance, the risks are minimal, but the focus of the study does not meet the requirements for exemption. Therefore, this study would fall under an expedited category meaning that it can be reviewed by an individual IRB board member without having to go before the full board.
Exempt	Any study with very minimal risk and falls into one of the exempt categories. In the field of education, including gifted education there are five relevant exempt categories: (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods. (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation. (3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if: (i) the human subjects are elected or appointed public officials or candidates for public office or (ii) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter. (4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. (5) Research and demonstration projects that are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs. One exception to the exemption category is in the area of anthropology. Anthropological studies never fall into the exempt category because of private observation of people regardless of how minimal risk the study.	A researcher is interested in using publicly available archival data (e.g., National Assessment of Educational Progress data) collected by an agency in looking at the Matthew effect regarding high achieving students in the area of reading in high- and low-poverty schools. This type of study would be considered to not pose any risks and therefore would be given an exemption classification. A researcher is interested in comparing two different service delivery models (e.g., cluster grouping vs. pull out) in terms of gifted students' math achievement. In this case, the research would be focusing on Normal Educational Practice and would not require consent/assent. Rather, it is typical for a letter of notification to be sent to parents only to inform them of the study.

a. *Source: Federal Register*, Vol. 63, No. 216, November 9, 1998.

researcher to be open to suggestions offered by an IRB staff or board member and to work to understand the requests and decisions. Challenging requests and decisions will likely slow down of the approval process or result in complete rejection of the protocol.

Establishing Clarity in Communication and Avoiding Educational Jargon

According to Citro, Ilgen, and Marrett (2003),

> Clear, open communication between IRBs and investigators is needed to facilitate the preparation of research protocols that adequately describe participant protection procedures, and the timely review of research protocols by IRBs. To the extent that a researcher better understands the functions of and constraints of IRBs and IRBs better understand researchers' concerns for maintaining the integrity of their research design and reaching closure on a timely basis, the smoother the research process is likely to be. (p. 172)

In general, IRB staff who serve as the initial point of contact typically have little to no formal training in the field of education. In addition, in some IRB offices, a board member reviewing a protocol may have little to no formal training in education. Therefore, it is imperative that protocols be written so the average "lay person" can understand the research being proposed. It is also important to highlight, if applicable, that the research procedures proposed are not beyond normal educational practice, referring to the federal regulations that govern NEP. Regardless of whether the protocol can be exempted, expedited, or must be sent to a full board review, clarity is imperative. Having lack of clearly defined research goals and procedures outlined in a protocol slows down the process of moving toward approval of the research.

Researcher Understanding of Research Ethics

The National Commission[2] (1979) emphasized that "the principles cannot always be applied so as to resolve beyond dispute particular ethical problems. The objective is to provide an analytical framework that will guide the resolution of ethical problems arising from research involving human subjects." Furthermore, the National Commission urged IRBs to "work closely with investigators to assume the rights and welfare of . . . subjects are protected . . . that the application of policies is fair to investigators." These comments from the National Commission support the intent of IRB officials to ensure that policies designed to protect human subjects are implemented fairly, both to protect the participants and to allow the research to be carried out. Researchers who understand the ethical principles are better able to address questions that may arise from a protocol review as well as complete the required IRB protocols with an eye toward the protection of human subjects.

Concluding Thoughts

High-quality research is critical to the field of gifted education. To address this need, investigators conducting research in the field should consider the following principles:

- Research goals should both benefit the field and minimize the social harm to study participants.
- Research should be conducted with respect for, and awareness of, the participants being studied, regardless of gender, race, ethnicity, culture, or physical or emotional challenges.
- Research should be conducted with respect for, and awareness of, underrepresented groups and with attempts made to avoid their exclusion or marginalization.
- An appropriate research design should be selected and implemented based on professional judgment with methods and findings open for discussion.
- All research staff should have the necessary professional knowledge, experience, and support.
- Researchers should ensure accuracy and avoid falsification, fabrication, suppression, or misinterpretation of data.
- Research participants should be protected from undue intrusion, distress, physical discomfort, psychological harm, personal embarrassment, or other harm.
- All data are treated with appropriate confidentiality or anonymity.
- Regardless of IRB determination, all research participants are fully informed of the research activities that will take place (full disclosure).

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Notes

1. IRB officials can be classified into two categories: (a) staff, who are individuals responsible for the day-to-day operations or the oversight of an IRB office and (b) board members, who are formally designated to approve, monitor, and review research involving human subjects.

2. See "National Conference on Alternative IRB Models: Optimizing Human Subject Protection." Available at http://www.aamc.org/reeearch/irbreview/irbconf06rpt.pdf.

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Bio

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