

Ethics in Research

What are Ethics?

Ethics in research are the principles, standards, and guidelines that govern the conduct of research activities involving human subjects, animals, and the broader environment. Ethical considerations are essential in research to ensure the protection of the rights, well-being, and dignity of individuals and to maintain the integrity and credibility of the research process.

Codes of Ethical Conduct:

Codes of ethical conduct, also known as codes of ethics or codes of professional conduct, are formalized sets of principles and guidelines that govern the behavior and decision-making of individuals or groups within a specific profession, organization, or community. These codes are designed to ensure that individuals act in an ethical and responsible manner, upholding the values and standards of their profession or organization. Different fields and professions often have their own unique codes of ethical conduct tailored to their specific contexts and concerns.

Professional standards

- **American Psychological Association**

(APA) <http://www.apa.org/ethics/code.html>

- The term "APA" can refer to several different organizations and concepts, but in the context of research it refers to the "American Psychological Association". The American Psychological Association is a professional organization that represents psychologists in the United States and is one of the largest and most influential psychological associations in the world.
- The APA is dedicated to advancing the field of psychology and promoting the well-being of individuals and communities. It serves as a hub for psychologists, researchers, educators, and students, providing resources, publications, conferences, and networking opportunities.
- The APA is known for publishing the "Publication Manual of the American Psychological Association," often referred to as the "APA Style Manual." This manual provides guidelines for writing and formatting research papers, theses, and dissertations in the social and behavioral sciences, including specific rules for citations and references.
- One of its key contributions to the field of psychology is the "Ethical Principles of Psychologists and Code of Conduct," commonly referred to as the APA Ethics Code. This code outlines ethical standards and principles for psychologists in their professional and research activities.

- **American Educational Research Association (AERA) (2011)**

The American Educational Research Association (AERA) is a prominent professional organization dedicated to advancing educational research and promoting scholarly inquiry in the field of education.

- National Research Act of 1974
- Institutional standards
- IRB

The IRB and Action Researchers

- Action researchers should provide the IRB with
 - clear data collection plans
 - assurance that the research is not coercive
 - cover letters that explain the studies and
 - the role of the teacher researcher
- parental permission forms, copies of data collection instruments
- include questions that allow student to opt out while appearing to participate
- any other institution-specific materials

Informed Consent

- Ensures that research participants
 - enter the research of their free will
 - understand the study
 - are aware of any possible dangers
- Intended to reduce the likelihood that participants will be exploited

- Ongoing dialogue between participants and teacher-researcher
- Written permissions if necessary

Freedom from Harm

- Students must not be exposed to risk
 - anonymity: researcher does not know identity of participants
 - confidentiality: researcher does not release personally identifiable information
- There is no place for deception in action research!

Parental Permission

- Required if
 - students are underage
 - data identify students
- Not required if
 - school personnel have “legitimate educational interest”
 - records are anonymous
- Request must specify
 - what data may be disclosed
 - for what purposes
 - to whom

Personal Ethical Perspective

- Some research data challenge personal ethics
 - disclosures by students or colleagues
- Clarify your perspective before you begin
 - based on personal beliefs, social principles
- Ensure accuracy
 - data collection, analysis, interpretation should be unbiased

Guidelines Checklist

- Determine whether you require approval & obtain if necessary.
- If necessary, seek written consent /permission.
- Consider confidentiality, anonymity and avoidance of harm.
- Deception is unacceptable.
- Develop an ethical research perspective.
- Determine the broader social principles that affect your ethical stance.
- Ensure that you record data accurately.

Deciding on an Area of Focus

This chapter provides guidelines for clarifying a general idea, and an area of focus for action research efforts. Procedures are described for doing reconnaissance (exploration) and reviewing related literature using online resources such as ERIC, the Internet, university library resources, or articles found in journals published by professional organizations for educators. Finally, this chapter tells how to create an action research plan.

In the beginning of the action research process, you need to clarify the general idea that will be the area of focus. The general idea is a statement that links an idea to an action and refers to a situation one wishes to change or improve on (Elliott, 1991). Here are some examples, phrased in the form of a statement based on an observation and followed by a question about how the situation could be improved:

- **Statement/Observation:** Students do not seem to be engaged during teen theater productions.
- **Question:** How can I improve their engagement?
- **Statement/Observation:** Students take a lot of time to learn problem solving in mathematics, but this process doesn't appear to transfer to their acquisition of other mathematics skills and knowledge.
- **Question:** How can I improve the integration and transfer of problem-solving skills in mathematics?
- **Statement/Observation:** Parents are unhappy with regular parent-teacher conferences.
- **Question:** How can I improve the conferencing process using student-led conferences?

Criteria for Selecting a General Idea/Area of Focus

There are some important criteria you should keep in mind while identifying your general idea and subsequent area of focus (Creswell, 2008; Elliott, 1991; Sagor, 2000):

- The area of focus should involve teaching and learning and should focus on your own practice.
- The area of focus is something within your locus of control.
- The area of focus is something you feel passionate about.
- The area of focus is something you would like to change or improve.

Reconnaissance

The next important step in the action research process is reconnaissance, or preliminary information gathering. More specifically, reconnaissance is taking time to reflect on your own beliefs and to understand the nature and context of your general idea. Doing reconnaissance takes three forms: self-reflection, description, and explanation.

Gaining Insight into Your Area of Focus Through Self-Reflection

First, try to explore your own understanding of the following:

- The *theories* that impact your practice.
- The *educational values* you hold.
- How your work in schools fits into the *larger context* of schooling and society.
- The *historical* contexts of your *school* and *schooling* and how things got to be the way they are.
- The *historical* contexts of how you arrived at your *beliefs* about *teaching* and *learning* (Kemmis, 1988).

Gaining Insight into Your Area of Focus Through Descriptive Activities

Next, try to describe as fully as possible the situation you want to change or improve by focusing on who, what, when, where, and how. Grappling with these questions not only will clarify the focus area for your action research efforts but also will prevent you from moving ahead with an investigation that was too murky to begin with. For example, at this stage, you might answer these questions:

- What evidence do you have that this issue (the problem-solving skills of math students) is a problem?
- Which students are not able to transfer problem-solving skills to other mathematics tasks?
- How is problem solving presently taught?
- How often is problem solving taught?
- What is the ratio of time spent teaching problem solving to time spent teaching other mathematics skills?

Gaining Insight into Your Area of Focus Through Explanatory Activities

In this case, you might hypothesize that students are struggling with the transfer of problem-solving skills to other mathematics tasks because they are not getting enough practice, they lack fundamental basic math skills, or they have not had sufficient opportunity to use math manipulatives. Given these possible explanations for why children have not been successfully transferring problem-solving skills to other areas of mathematics, you might develop the following hypotheses:

- A relationship exists between a mathematics curriculum that emphasizes the children's ability to know *what* to do and *why* to do it and children's abilities to transfer problem solving skills.
- A relationship exists between a mathematics curriculum that emphasizes the use of manipulatives (to help children create meaning) and children's abilities to transfer problem-solving skills.

These reconnaissance activities (self-reflection, description, and explanation) help teacher researchers clarify what they already know about the proposed focus of the study; what they believe to be true about the relationships of the factors, variables, and contexts that make up their work environment; and what they believe can improve the situation. Research in Action Checklist 2 summarizes the critical activities for reconnaissance that you should perform at this point in the action research process.

Review of Related Literature

The literature may suggest other ways of looking at your problem and help you to identify potential *promising practices* that you might use in your classroom to correct the problem. To borrow the words of Kemmis (1988), "Can existing research throw any light on your situation and help you see it more clearly?" (p. 55).

Reviewing the literature is a valuable contribution to the action research process that could actually save you time. Often, teacher researchers think that they know what their problem is but become stymied in the process

because they weren't really sure what they were asking. Taking time to immerse yourself in the literature allows you to reflect on your own problems through someone else's lens. You can locate yourself within the research literature and find support for what you are doing or be challenged by what other researchers have done and how they have tackled a particular problem.

At the end of the process, you ought to be informed enough about the literature that you could talk to colleagues about the major themes that emerged. Similarly, you should be able to talk about "promising practices" that were discussed. Sometimes, teacher researchers will claim that they cannot find any published research related to their area of focus. This invariably leads to questions of relevance and importance.

Too often the review of related literature is seen as a necessary evil to be completed as fast as possible so that one can get on with the "real research." This perspective reflects a lack of understanding of the purposes and importance of the review and a feeling of uneasiness on the part of students who are not sure how to report the literature. Nonetheless, the review of related literature is as important as any other component of the research process and can be conducted quite painlessly if approached in an orderly manner. Some researchers even find the process quite enjoyable! The review of related literature involves the systematic identification, location, and analysis of documents containing information related to the research problem. The term is also used to describe the written component of a research plan or report that discusses the reviewed documents. These documents can include articles, abstracts, reviews, monographs, dissertations, books, other research reports, and electronic media effort. The major purpose of reviewing the literature is to determine what has already been done that relates to your topic. This knowledge not only prevents you from unintentionally duplicating another person's research, but it also gives you the understanding and insight you need to place your topic within a logical framework. Previous studies can provide the rationale for your research hypothesis, and indications of what needs to be done can help you justify the significance of your study. Put simply, the review tells you what has been done and what needs to be done.

Another important purpose of reviewing the literature is to discover research strategies and specific data collection approaches that have or have not been productive in investigations of topics similar to yours. This information will help you avoid other researchers' mistakes and profit from their experiences. It may suggest approaches and procedures that you previously had not considered. For example, suppose your topic involved the comparative effects of a brand-new experimental method versus the traditional method on the achievement of eighth grade science students. The review of literature may reveal ten related studies that found no differences in achievement. Several of the studies, however, may suggest that the brand-new method is more effective for certain kinds of students than for others. Thus, you may reformulate your topic to involve the comparative effectiveness of the brand-new method versus the traditional method on the achievement of a subgroup of eighth-grade science students—those with low aptitude.

The following general guidelines can assist you:

- Avoid the temptation to include everything you find in your literature review.
- Bigger does not mean better. A smaller, well-organized review is definitely preferred to a review containing many studies that are only tangentially related to the problem.
- When investigating a heavily researched area, review only those works that are directly related to your specific problem. You will find plenty of references and should not have to rely on less relevant studies. For example, the role of feedback for verbal and nonverbal learning has been extensively studied in both non-human animals and human beings for a variety of different learning tasks.
- Focus on those using similar subjects or similar variables—for example, if you were concerned with the relation between frequency of feedback and chemistry achievement, you would probably not have to review feedback studies related to non-human animal learning.
- When investigating a new or little-researched problem area, review any study related in some meaningful way to your problem. Gather enough information to develop a logical framework for the study and a sound rationale for the research hypothesis. For example, suppose you wanted to study the effects of an exam for non-English speaking students on GPA. The students must pass the exam to graduate. Your literature review would probably include any studies that involved English as a second language (ESL) classes and the effects of culture-specific grading practices as well as studies that identified strategies to improve the learning of ESL students. In a few years, there will probably be enough research on the academic consequences of such an exam on non-English speaking students to permit a much more narrowly focused literature review.

Conducting a Literature Review

1. Identify and make a list of keywords to guide your literature search.
2. Using your keywords, locate primary and secondary sources that pertain to your research topic.
3. Evaluate your sources for quality.
4. Abstract your sources.
5. Analyze and organize your sources using a literature matrix.
6. Write the literature review.

Source: From Educational Research: Competencies for Analysis and Application (10th ed.), by L. R. Gay, G. E. Mills, and P. Airasian, © 2012. Upper Saddle River, NJ: Pearson Education.

Online Resources

- Educational Resources Information Center (ERIC)
- Education Full Text
- PsycINFO
- Dissertation Abstracts

Internet and WWW Resources

- Google: Scholar, Books, UncleSam
 - CSTEEP: The Center for the Study of Testing, Evaluation, and Educational Policy
 - National Center for Education Statistics
 - Developing Educational Standards
 - U.S. Department of Education
 - Education Resources Directory
 - (EROD)
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- The Internet links organizations and individuals all over the world. The World Wide Web is on the Internet.
 - To access the Internet, you need a computer with a modem or Ethernet/cable line and a browser that connects to the Web.
 - The available resources on the World Wide Web are almost limitless, so the best way to become familiar with its use is to “surf” in your spare time.
 - The Web contains a variety of sites relevant to an educational researcher. Each site is reached through its Internet address. Addresses containing “ed” or ending in “.edu” are related to educational institutions, those ending in “.com” are related to commercial enterprises, those ending in “.org” refer to organizations (including professional organizations), and those ending in “.gov” link to government sites.
 - Search engines have established subcategories and also allow keyword searches to review large portions of the World Wide Web quickly.

Professional Organizations

- ☐ Association for Supervision and Curriculum Development (ASCD)
- ☐ National Council of Teachers of Mathematics (NCTM)
- ☐ National Council for the Social Studies (NCSS)
- ☐ National Education Association (NEA)
- ☐ National Science Teachers Association (NSTA)
- ☐ International Reading Association (IRA)

The websites for professional organizations maintain links to current research in a particular discipline.

University Library

- ☐ Perhaps a statement of the obvious!
- ☐ Meet the librarian. Don't be afraid to ask for help.

Evaluating Sources

- ☐ Key questions

- ☐ Relevance: What was the problem statement of the study?
- ☐ Author: Who performed the study?
- ☐ Source: Where was it published?
- ☐ Method: How was it conducted?
- ☐ Date: When was it conducted?
- ☐ Context: What sources are referenced?

It is important to evaluate all literature sources by asking the following questions:

What was the problem statement of the study?

Is the study relevant given your research interests? Who was studied? Where was the source published?

When was the study conducted? and How was the study conducted?

Annotating

- ☐ Reviewing, summarizing, classifying references
- ☐ read abstract/summary to determine relevance
- ☐ skim article, making mental notes of main points
- ☐ write complete bibliographic reference
- ☐ classify and code according to system

Annotating your sources involves creating summaries by locating, reviewing, summarizing, and classifying your references. Annotations assess the quality, relevance, and accuracy of a source; articulate your response to a source; and indicate why the source is important to your research.

The main advantage of beginning with the latest references on your topic is that the most recent studies are likely to have profited from previous research. References in recent studies often contain references to previous studies that you have not yet identified.

For each source work, list the complete bibliographic record, including author's name, date of publication, title, journal name or book title, volume number, issue number, page numbers, and library call number.

Briefly list main ideas. Put quotation marks around quotes taken from the source and include page numbers.

Keep all references in the citation format required for research reports or dissertations.

Make a copy of your references and put it in a safe place.

A helpful way to keep track of the literature is to use a matrix.

Analyzing, Organizing, & Reporting

- ☐ Make an outline
- ☐ Analyze each reference in terms of the outline
- ☐ Analyze the references for similarities and differences
- ☐ Give a meaningful overview of past research
- ☐ Discuss references least related to your problem first and those most related last
- ☐ Conclude with a brief summary of literature and its implications

Describing and reporting research call for a specialized style of writing. Technical writing requires documenting facts and substantiating opinions, clarifying definitions and using them consistently, using an accepted style manual, and starting sections with an introduction and ending them with a brief summary.

When organizing a review, make an outline; sort references by topic; analyze the similarities and differences between references in a given subheading; give a meaningful overview in which you discuss references least related to the problem first; and conclude with a brief summary of the literature and its implications.

The Action Research Plan

Ideally, your investment of time and energy in the reconnaissance and literature review stages allows you to synthesize the related literature so that you can see your project more clearly. In addition, it may help you identify promising practices that can become an integral part of your ongoing action research efforts.

At this stage of the action research process you should create an action research plan that summarizes your action research thoughts in a plan that will guide you through your action research work. It should include the following nine steps:

1. Write an area-of-focus statement.
2. Define the variables.
3. Develop research questions.
4. Describe the intervention or innovations.

5. Describe the membership of the action research group.
6. Describe negotiations that need to be undertaken.
7. Develop a timeline.
8. Develop a statement of resources.
9. Develop data collection ideas.

The Action Research Plan

- ☐ Describe negotiations
- ☐ Develop a timeline
- ☐ Develop a statement of resources
- ☐ Develop data collection ideas.

Area of Focus Statement

- ☐ Identifies the purpose of the study

Define the Variables

- ☐ Variable: characteristic of your study that is subject to change
- ☐ represent what the factors, contexts, and variables mean to you

Develop Research Questions

- ☐ Validate that you have a workable way to proceed with your investigation
- ☐ breathe life into the area of focus statement
- ☐ help focus the data collection plan

Describe Intervention/Innovation

- ☐ What are you going to do to improve the situation you have described?

Describe Group Membership

- ☐ Identify who will be involved in action research group
- ☐ Describe the importance of the members for the success of the investigation

Describe Negotiations

- ☐ Head off any potential obstacles to implementation of the action plan
- ☐ permission from an administrator? parents? students? Other teachers?

Develop Timeline

- ☐ Decide who will be doing what, when
- ☐ Anticipate where, how inquiry will take place

Develop Statement of Resources

- ☐ List materials & resources that you need

Develop Data Collection Ideas

- ☐ Preliminary statement identifying kinds of data that may provide evidence

Put the Plan into Action

- ☐ Develop & implement data collection ideas