

# Genres of Educational Research

Educational research is tremendously various, but it is possible to sort it into a few main categories, or genres. Genres are general approaches to research. They are analogous to forms of literature that have relatively predictable features. We know, for instance, that science fiction includes stories that take place in an imaginary place, often in the future, and we know that someone will be killed in a mystery. This is not to say that we know how these stories will end, but rather than they take a certain form in the telling.

This handout describes a few of the main genres used for educational research. The main genres we rely on are these:

- < Case studies
- < Surveys
- < Group Comparisons
- < Longitudinal Studies

Each genre can be characterized by particular forms of research questions, particular approaches to research itself, particular kinds of research techniques. Each is also susceptible to certain types of weaknesses. These general characteristics of each genre are summarized extremely briefly on the following pages.

## Case Studies in Educational Research

Genre	Form of Research Question	General Approach	Common Techniques	Examples	Common Weaknesses
<b>Case Study</b>	How does this organization or system work?	Close and continuous observation; "ethnography;" multiple working hypotheses	Observation, interview, field notes, on-going hypothesis testing with shifting focus of attention	Most anthropological studies of cultures, classrooms, communities	<p>Susceptible to human info-processing biases (e.g., tendency to see confirming evidence only, etc)</p> <p>Usually only one case is studied so it is impossible to know how representative the case is of anything</p>
<b>Variant: Action Research</b>	<p>What is my role here?</p> <p>How does my behavior influence outcomes?</p>	Often a contrast involved		Deborah Ball's work Maggie Lampert's work	<p>Same as above</p> <p>Potential for self-serving biases</p>
<b>Variant: Multiple Case Study</b>	What are the commonalities and differences in how a collection of systems work?	3-5-day visits to multiple cases	standardized sampling procedures and interview schedules.	<p>AIR evaluation of Eisenhower programs</p> <p>Linda McNeil's <i>Contradictions of Control</i></p>	<p>Still susceptible to human info-processing biases</p> <p>Multiple cases helps with the problem not knowing how unique or typical any one case is</p>
<b>Variant: Biographies and Histories</b>				Larry Cuban's <i>How Teachers Taught</i>	Same as above

## Surveys in Educational Research

<b>Genre</b>	<b>Form of Research Question</b>	<b>General Approach</b>	<b>Common Techniques</b>	<b>Examples</b>	<b>Common Weaknesses</b>
<b>Survey</b>	<p>How often does something occur?</p> <p>How many people believe something?</p> <p>How often do two things occur together?</p>	Scan a large population, look for patterns	Telephone interviews, questionnaires, statistical tabulations	<p>Gallup Polls of voter opinions</p> <p>NCES surveys of teachers, schools, etc</p>	<p>Measurement categories can distort the underlying phenomena</p> <p>Susceptible to sampling biases</p>
<b>Variant: Assessments of Student Achievement</b>	<p>How well are students doing?</p> <p>How does performance differ across institutions, regions, grades, etc</p>			<p>TIMSS</p> <p>NAEP</p>	
<b>Variant: Correlational studies</b>	What factors are correlated with a particular outcome?	Scan a large population looking for patterns	Complex statistical models, usually variants of multiple regression or HLM	Studies correlating teacher background characteristics with student achievement;	<p>Often confuses cause and effect</p> <p>Susceptible to ecological fallacy</p>

## Experiments and Group Comparisons in Educational Research

<b>Genre</b>	<b>Form of Research Question</b>	<b>General Approach</b>	<b>Common Techniques</b>	<b>Examples</b>	<b>Common Weaknesses</b>
<b>Experiment</b>	Is one program or curriculum or technique more effective than others?	Try two or more programs out on comparable groups, examine the outcomes	Often random assignment to groups,  Often tests before and after,  sometimes observations as well to insure "treatment fidelity"	Carpenter et al study of CGI;	Comparison groups are often not well defined;  Treatment variations not be meaningful  Ethical limits on manipulations
<b>Variant: Group Comparisons</b>		Find people who participated the different programs, compare them now;  Compare one group prior to participating with another who has completed the program		Comparisons of traditionally-prepared and alternate-route teachers,  Comparisons of charter and public schools	Each alternative is part of its own natural ecosystem;  motives for entering program are hard to disentangle from the impact of the program itself

## Longitudinal Studies in Educational Research

<b>Genre</b>	<b>Form of Research Question</b>	<b>General Approach</b>	<b>Common Techniques</b>	<b>Examples</b>	<b>Common Weaknesses</b>
<b>Longitudinal Study</b>	How do students change over time?  How do teachers change over time?	Sample a group and follow them over time, asking the same or similar questions on repeated occasions	Surveys, interviews, standardized achievement tests	Longitudinal studies of student achievement  <i>MSU's Teacher Education and Learning to Teach Study</i>	Attrition is high on longitudinal studies, it becomes hard to know whether observed changes reflect changing sample or widespread phenomenon; Changes in questions often complicate interpretations
<b>Variant: Retrospective Study</b>		Interview people about their biographies, try to discern major trends and influences	repeated interviews	Many biographical studies	Highly dependent on the interviewee's judgements about what was significant
<b>Variant: Follow-up Study</b>		Find people who participated in a program earlier and conduct further research on them	surveys, interviews	Many evaluations of teacher education programs are based on follow-up studies of program graduates	Sample likely biased toward those you are able to find, or who are willing to participate
<b>Variant: Surveys of repeating cohorts</b>		Sampling a new cohort on each occasion, comparing responses	surveys, questionnaires, structured interviews	NAEP surveys of math achievement among 4 <sup>th</sup> graders, 8 <sup>th</sup> graders, etc	Changes in samples or questions over time can complicate interpretations