Common Education Research Study Designs, A Primer

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A Primer on Common Education Research Study Designs

What Are Research Study Designs?

Research in education helps us learn how kids learn best. It looks at things like teaching ways, school rules, and student actions. A research study design is like a plan. It tells how to collect facts and study them. Good designs help find true answers. They make sure the study is fair and clear. In education, some designs are used a lot. They work well to show what helps students. This primer talks about six main ones. They come from social science.

Descriptive Design

Descriptive design tells what is going on now. It asks who, what, when, where, and how. But not why. It looks at things as they are. No changes are made. Facts come from surveys, watches, or records. In education, it shows student facts like test scores or class sizes (University of Pittsburgh School of Nursing, n.d.).

For example, a study might count how many kids like math class. It uses numbers like average or most common answer.

This design is good because it gives a lot of facts fast. It helps see trends. But it does not show why things happen. It can not prove cause. Results may not work everywhere (University of Pittsburgh School of Nursing, n.d.).

Correlational Design

Correlational design looks at links between two things. It sees if one changes with the other. No one makes changes. It uses numbers to measure how strong the link is. In education, it checks if study time links to good grades (University of Pittsburgh School of Nursing, n.d.).

For example, it might find that more homework time means higher test scores. But it does not prove homework causes better scores.

This design is good for finding patterns in real life. It uses facts we already have. But it can not show cause. Other things might affect both. Links could be by chance (University of Pittsburgh School of Nursing, n.d.).

Experimental Design

Experimental design tests if one thing causes another. It changes one part and sees what happens. Groups are picked by chance. One group gets the change, like a new teaching way. The other does not. Both are tested the same.

In education, it might test a new reading program. One class uses it. Another does not. Compare test scores after.

This is the best for showing cause. It controls other things. Results are strong proof. But it can be hard in schools. Random groups may not be fair. It costs a lot. Not real like school life.

Quasi-Experimental Design

Quasi-experimental design is like experimental but no random groups. It uses groups that are already there, like classes. It tests cause but less control. In education, it is common because schools can not always pick groups by chance (University of Pittsburgh School of Nursing, n.d.).

For example, compare two schools. One gets new computers. See if scores go up.

It is good for real school tests. Easier to do. But less sure about cause. Other differences in groups might affect results (University of Pittsburgh School of Nursing, n.d.).

Case Study Design

Case study design looks deep at one thing or group. It uses many ways to collect facts, like talks and watches. It tells a full story. In education, it studies one school or class to learn about a problem.

For example, study how one teacher helps kids with hard reading.

It gives rich facts about real life. Good for new ideas. But hard to use for all places. May have bias from the watcher. Does not show cause.

Longitudinal Design

Longitudinal design follows the same people over time. It sees changes and why. Facts are collected many times. In education, it tracks kids from young to older to see learning paths.

For example, follow students for years to link early help to later success.

It shows changes well. Helps find long causes. But takes a long time. People may drop out. Hard to keep things the same over a long time.

These designs help answer different questions in education. Pick one that fits the goal. Mix them sometimes for better answers.

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