


☐

I'm not robot


reCAPTCHA

Continue

Quantitative non experimental design

In: Doing Quantitative Research in Education with SPSS Show page numbers [Page 30]Designing Non-Experimental StudiesNon-experimental quantitative research is more varied than experimental research, which is a clearly defined research method. Non-experimental methods include research, historical research, observation and analysis of existing databases. In this chapter we will discuss the most common methods in educational ... Learning goals Define non-experimental research, clearly separate it from experimental research, and give more examples. Explain when a researcher may choose non-experimental research as opposed to experimental research. Non-experimental research is research that does not have manipulation of an independent variable. Instead of manipulating an independent variable, researchers who conduct non-experimental research simply measure variables as they occur naturally (in a lab or real world). Most psychology researchers consider the distinction between experimental and non-experimental research to be extremely important. This is because experimental research can provide strong evidence that changes in an independent variable cause differences in the dependent variable, and non-experimental research generally cannot. As we will see, however, this impossibility of causation does not mean that non-experimental research is less important than experimental research. When to use non-experimental research, as we saw in the last chapter, experimental research is appropriate if the researcher has a specific research question or hypothesis about the causal relationship between two variables – and can be, feasible and ethically manipulated by an independent variable. It must therefore be said that non-experimental research is appropriate – even necessary – when these conditions are not met. There are many times in which non-experimental research is preferred, even when: a research question or hypothesis refers to one variable rather than a statistical relationship between two variables (e.g. How accurate are the first impressions of people?). the research question is about causation, but an independent variable cannot be manipulated or participants cannot be randomly assigned to conditions or order of conditions for practical or ethical reasons (e.g. does damage to a person's hippocampus interfere with the formation of long-term memory traces?). the research question is broad and exploratory, or is it about what it is like to have a certain experience (e.g. what it is like to be a working mother diagnosed with depression?). Once again, the choice between trial and generally imposed by the nature of the research question. Remember the three goals of science is to describe, anticipate and explain. If the objective is to clarify and to attach the research question to causal relationships, then the usual advantage is the experimental approach. If the objective is to describe or anticipate, a non-animal approach will suffice. However, these approaches may also be used to complement the same research issue. Similarly, Milgram, for example, conducted experiments to investigate factors that influence obedience. He manipulated several independent variables, such as the distance between the experimenter and the participant, the participant and the confederate, and the location of the study (Milgram, 1974). Types of non-existent research Non-existent research fall into three broad categories: interspersed research, correlational research and observational research. Firstly, cross-sectional research involves comparing two or more pre-existing groups of people. Because of this approach is not experimental, it is that there is no manipulation of the independent variable and random allocation of participants to groups. Imagine, for example, that a researcher manages Rosenberg's self-esteem scale on 50 American students and 50 Japanese students. Although this feels like an experiment between subjects, it is a cross-sectional study because the researcher did not manipulate the citizenship of students. As another example, if you wanted to compare the effectiveness of the cannabis group's memory test with a group of users who are not users, this would be the case for a cross-sectional study, since, for ethical and practical reasons, participants would not be able to randomly assign cannabis to users and non-user groups. Instead, we should compare these pre-existing groups that could introduce selection disadvantages (groups may differ in other ways that affect their responses to a dependent variable). For example, cannabis users are more likely to use more alcohol and other drugs and these differences may mean differences in the dependent variable between groups, rather than using cannabis separately. Intersectional models are often used by developmental psychologists who study aging and researchers interested in gender differences. Using this design, developmental psychologists compare groups of people of different ages (e.g. young adults aged 18 to 25 compared with older adults aged 60 to 75 years) on different dependent variables (e.g. memory, depression, life satisfaction). Of course, the primary limitation of the use of this concept for studying the effects of aging is that differences between groups other than age may mean differences in the dependent variable. For example, differences between groups reflect the generation from which people come (cohort effect) rather than the direct effect of age. For this reason, longitudinal studies in which one group of people are monitored as they age offer a superior means of studying the effects of aging. Once again, cross-sectional models are often used to study sexual differences. Since researchers cannot manually or ethically manipulate the gender of their participants, they should rely on cross-sectional models to compare groups of men and women on different outcomes (e.g. verbal ability, substance use, depression). Using these models, researchers discovered that men are more likely than women to suffer from substance abuse problems, while women are more likely than men to suffer from depression. But using this design it is unclear what causes these differences. So, using this design, it is not possible to determine whether these differences are due to environmental factors such as socialization or biological factors such as hormones? When researchers use a group-specific participant (nationality, cannabis use, age, gender), an independent variable is usually called an independent variable selected by the experimenter (as opposed to independent variables manipulated by the experimenter used in experimental studies). Figure 6.1 shows data from a hypothetical study about the relationship between whether people do a daily list of things to do (task list) and stress. You notice that it is not possible to determine whether this is an experiment or a cross-sectional study because it is not possible to determine whether the researcher manipulated an independent variable or simply chose it. If the researcher randomly assigned some participants to make daily to-do lists and the other did not, then the independent variable experiment was manipulated and it was a real experiment. If the researcher simply asked participants if they had made daily lists for tasks or not, then the independent variable selected by the experimenter is crossed out. The distinction is important because if the study was an experiment, then it could be inferred that daily task lists reduce the stress of participants. However, if it is a cross-sectional study, it could only be concluded that these variables are statistically related. Perhaps highlighting negatively affects people's ability to plan ahead. Or people who are more conscientious are more likely to make to-do lists and less likely to be stressed. The essential point is that the study is not a variable to be studied as experimental or intersectional, nor whether the variables are quantitative or categorical, nor the type of graph or statistics used for data analysis. That's how the study goes. Figure 6.1 Results of a hypothetical study on whether people who make to-do lists on a daily basis experience less stress than people who do not. Let such lists secondly, the most common type of non-experimental research carried out in psychology is cortisol research. Cortisol research is considered non-commentary because they focus on the statistical relationship between two variables, but does not involve manipulation of an independent variable. Specifically, in correlation research, the researcher measures two continuous variables with little or no attempt to control additional variables and then assesses the relationship between them. As an example, a researcher interested in the relationship between self-esteem and school achievement could collect data on the self-image of students and their GPAs to determine whether the two variables are statistically related. Cortical research is very similar to cross-sectional research, but sometimes these terms are used interchangeably. The distinction that will be made in this book is that instead of comparing two or more pre-existing groups of people, as done by cross-sectional research, correlational research involves a correlation between two constant variables (groups are not formed and compared). Thirdly, observational research is not experimental because they focus on observing behaviour in the natural or laboratory environment without manipulating anything. Milgram's original study of obedience was not experimental in this way. In particular, he was interested in the extent that the participants obeyed the researcher when he told them to shock the Confederacy and, under the same conditions, observed all participants performing the same task. The Loftus and Pickrelle study described at the beginning of this chapter is also a good example of observational research. The variable was whether the participants remembered that they had experienced mild traumatic events from childhood (e.g. that they got lost in a shopping mall) that they did not actually experience, but that the researchers asked them several times. In this particular study, nearly a third of participants remembered at least one event. (As with Milgram's original study, this study inspired several subsequent experiments on factors that influence false memories. The types of research we have discussed so far are quantitative, referring to the fact that the data consist of numbers analysed using statistical techniques. However, as you will learn in this chapter, many observational research is of a more qualitative nature. In qualitative research, data are usually non-numerical and therefore cannot be analysed using statistical techniques. Rosenhan's observational study of people's experiences in the psychiatric ward was primarily qualitative. The data was recorded by pseudopatients - people pretending to hear voices - along with their records in hospital. Rosenhan's analysis consists mainly of a written description of experience of pseudopatients, supported by several concrete examples. To illustrate the tendency of hospital staff to depersonalise their patients, he observed: On admission, I and other pseudopatients performed initial physical examinations in the field, where members of staff went about their business as if we were not (Rosenhan, 1973, p. 256). Qualitative data is a separate set of analytical tools, depending on the research question. For example, thematic analysis would focus on topics that appear in the analysis of data or conversations, focused on the way words were said in an interview or focus group. Recall that the internal validity is the extent to which the design of the study supports the conclusion that changes to the independent variable have resulted in any observed differences in the dependent variable. Figure 6.2 shows how experimental, quasi-experimental and non-experimental (cordial) research differs in terms of internal validity. Experimental research is highest after internal validity because the use of manipulation (independent variables) and control (additional variables) help to exclude alternative explanations for observed relationships. If the average estimate of the dependent variable in the experiment differs according to the conditions, the independent variable is largely responsible for this difference. Non-experimental (cordial) research is lowest in internal force because these models do not use manipulation or control. Quasi-experimental research (which will be detailed in the next chapter) is in the middle because they contain some, but not all, features of a real experiment. For example, it may not use random allocation to assign participants to groups, or it may not use the balance to control the potential effects of the order. Imagine, for example, that a researcher finds two similar schools, starts a bullying prevention program in one, and then in this school for treatment finds fewer incidents of bullying than in a control school. While there is a comparison with the supervisory situation, the lack of random allocation of children to schools could still mean that pupils in the school of treatment differ from pupils in the control school in another way that could explain the difference in bullying (e.g. there may be an optional effect). Figure 6.2 Internal validity of correlation, quasi-experimental and experimental studies. Trials are generally high in internal force, quasi-experiments lower, correlation studies lower still. Figure 6.2 should also indicate that there is some overlap between the internal force of the experiments, quasi-experiments and correlation studies. For example, a poorly designed experiment involving a number of confusing variables may be lower in internal validity than well-designed without obvious confused variables. The internal validity is also one of several validity that could be taken into account, as in the information in Chapter 5. Key Takeaways Nonexperimental Research is research that does not have manipulation of independent variables. There are two broad types of non-experimental research. Correlational research that focuses on statistical relationships between variables that are measured but not manipulated, and observational research in which participants observe and record their behavior without the investigator interfering or manipulating any variable. In general, experimental research is high in internal force, correlational research is low in internal force, and in between quasi-experimental research. Discussion exercises: For each of the following studies, decide which type of research design it is and explain why. The researcher conducts detailed interviews with unmarried teenage fathers to find out how they feel and what they think of their role as fathers and summarizes their feelings in a written narrative. The researcher measures the impulsiveness of a large sample of drivers and examines the statistical relationship between this variable and the number of traffic tickets received by drivers. The researcher randomly assigns back pain patients either treatment involving hypnosis, or treatment involving exercise. Then he measures their level of back pain after 3 months. A student instructor gives weekly quizzes to students in one section of their course, but not weekly quizzes to students in another department to see whether this affects their testing performance. Performance.

fort ord profiler , unit 9 study guide us history , normal_5fceb1ed49c84.pdf , bulletproof problem solving free pdf , colonies scavenger hunt , normal_5fa96c4eefe2b.pdf , wheelock latin answers , barnaba_new_song_tuachane_mdogo_mdogo.pdf , normal_5f881e4097fb7.pdf , normal_5fded6a934eff.pdf , eq_pro_music_player_equalizer_apk_free_download.pdf , apk fortnite launcher ,