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Survey Method in Educational Psychology

Arpita Chakraborty
Assistant Teacher in field of Education

Abstract: ***A survey is a data collection tool used to gather information about individuals. Surveys are commonly used in psychology research to collect self-report data from study participants. A survey may focus on factual information about individuals, or it might aim to obtain the opinions of the survey takers. Surveys are one of the most commonly used research tool because they can be utilized to collect data and describe naturally occurring phenomena that exist in the real world. They offer researchers a way to collect a great deal of information in a relatively quick and easy way. A large number of responses can be obtained quite quickly, which allows scientists to work with a lot of data.***
Key words: survey, data collection, tool, psychology research

I. INTRODUCTION

The survey method of data collection is likely the most common of the four major methods. The benefits of this method include its low financial cost and its large sample size. The very large issue with the survey is its accuracy. More often than not, there is a large disparity between people's stated opinions and their expressed opinions. The survey is a reflection only of their stated opinions, and thus is fundamentally inaccurate. Properly interpreted, surveys may be used to understand a person's viewpoints on a matter, but this analysis is very difficult and also leaves much room for doubt. All in all, surveys have limited use in studying actual social action, but are inexpensive and are an excellent way to gain an understanding of a person's attitude toward a matter.

II. OBJECTIVE OF THE STUDY

A. To define and explain survey method.
B. To correlate survey as a method of psychology.
C. To explore the advantages and disadvantages of survey method over the different issues of psychology.
D. To conclude how far this method can accelerate the subject of psychological processes.

III. DEFINITION AND EXPLANATION OF SURVEY METHOD

The word survey is used most often to describe a method of gathering information from a sample of individuals. Besides sample and gathering information, other recurring terms in definitions and descriptions are systematic or organized and quantitative. So, a survey can be seen as a research strategy in which quantitative information is systematically collected from a relatively large sample taken from a population. Most books stress that survey methodology is a science and that there are scientific criteria for survey quality.

1) *Phases of Survey Research:* While going through the history of survey research method, one can find at least three significant phases in its development as a method of research (i) just collection of data was considered survey in the first phase (ii) descriptive studies based on survey data were known as survey method in the second phase and (iii) the explanation part of the data was considered as more important in the survey methods in the third phase. Methodology Survey researchers normally adopt a flow plan or chart to outline the design and subsequent implementation of a survey. The flow plan begins with the objectives of the survey, lists each step to be taken and ends with the final report. The subsequent steps are as discussed below:
2) *Statement of the Problem:* It is not always possible for a researcher to formulate his problem simply, clearly, and completely. He may often have only a general, diffused notion of the problem. This is in the nature of the complexity of scientific research. It may even take the investigator years of exploration, thought, and research before he can clearly say what questions he has been asking. Nevertheless, adequate statement of the research problem is one of the most important parts of research. That it may be difficult or impossible to state a research problem satisfactorily at a given time should not allow us to lose sight of the ultimate desirability and necessity of doing so. Nor should the difficulty be used as a rationalization to avoid stating the problem. Bearing this difficulty in mind, a fundamental principle can be stated: If one wants to solve a problem, one must generally know what the problem is. It can be said that a large part of the solution lies in knowing what one is trying to do. Another part lies in knowing what a problem is and especially what a scientific problem is. What is a good problem statement? Although research problems differ greatly, and although there is no one “right” way to state one, certain characteristics of

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problems and problem statements can be learned and used to good advantage. There are at least three criteria of good problems and problem statements. Firstly, the problem should express a relation between two or more variables. Secondly, the problem should be stated clearly and unambiguously in question form. Thirdly, the problem and the problem statement should be such as to imply possibilities of empirical testing,.

3) *Sample and the Sampling Plan:* Selecting the universe in the field of study and choosing the sample from the universe are the second crucial steps in survey research. The universe to be sampled and studied must be defined. In sampling, normally we collect limited data from a population and after studying the limited data we try to infer certain conclusions about the characteristics or parameters of the population. Therefore, the sample design must result in a truly representative sample; sample design must be such which results in a minimum sampling error; sample design must be viable in the context of funds availability; sample design must be such that the systematic bias can be controlled easily and sample should be such so that the result of the sample study can be applied, in general, for the universe with a reasonable level of confidence. This is a laborious and difficult business. Interview schedules and questionnaire methods are often used for data collection in psychological research. The instruments have to be carefully developed with regard to the type of questions to be asked, the degree of probing, the sequence of questions etc.
4) *Data Collection:* Interviewers are oriented, trained, and sent out with complete instructions as to whom to interview and how the interview is to be handled. In the best surveys, interviewers are allowed no latitude as to whom to interview. They must interview those individuals and only those individuals designated, generally by random devices. Some latitude may be allowed in the actual interviewing and use of the schedule, but not much. The work of interviewers is also systematically checked in some manner. For example, every tenth interview may be checked by sending another interviewer to the same respondent. Interview schedules are also studied for signs of spurious answering and reporting. Various methods used for data collection in survey research are described in subsequent pages. Coding and Coding Frame : Coding refers to an analytical process in which data, often from interview transcripts or questionnaires, are categorized to facilitate analysis. It is a set of rules that translate answers into numbers and vice-versa. Coding refers to the process of assigning numerals or other symbols to answers so that responses can be put into a limited number of categories or classes. Such classes should be appropriate to the research problem under consideration. They must also possess the characteristics of exhaustiveness and exclusiveness which means a specific answer can be placed in one and only one cell in a given category set. Another rule to be observed is that of unidimensionality by which every class is defined in terms of only one concept, Coding should be unambiguous so as to minimize errors during analysis. If we have a reasonably focused and specific question to the point and if coding categories are conceptually clear, we can expect high reliability of the data. It is ideal that the researcher should have adequate knowledge about coding. Equally important is data entry which will have to be carefully checked to ensure the reliability of the data. A coding frame relates to a single question. In cases where there are only a few possible answers to the question the preparation of the frame raises no problems.
5) *Grouping and Tabulation of Data:* It is cumbersome to study or interpret large data without grouping it, even if it is arranged sequentially. For this, the data are usually organized into groups called classes and presented in a table which gives the frequency in each group. Such a frequency table gives a better overall view of the distribution of data and enables a person to rapidly comprehend important characteristics of the data. If the tabulation plans have been carefully worked out, the analyst is bound to think of new analysis as he goes along. Tabulation may also be classified as simple and complex tabulation. The former type of tabulation gives information about one or more groups of independent questions, whereas, the latter type of tabulation shows the division of data in two or more categories and as such is designed to give information concerning one or more sets of inter-related questions. Simple tabulation generally results in one-way tables which supply answers to questions about one characteristic of data only. As against this, complex tabulation usually results in two-way tables (which give information about two inter-related characteristics of data), three-way tables (which give information about three interrelated characteristics of data) or still higher order tables, also known as manifold tables, which supply information about several interrelated characteristics of data. Two-way tables, three-way tables or manifold tables are all examples of what is sometimes described as cross tabulation.
6) *Analysis of Data and Types of Analysis:* For analysis of data, both quantitative and non-quantitative methods can be used. The objectives of analysis are (i) to characterize what is typical in a voters group; (ii) to indicate how widely individuals in the group vary; (iii) to show other aspects of how the individuals are distributed with respect to the variable being measured; (iv) to show the relation of the variables in the data to one another and; (v) to describe the difference between two or more groups. Further, analysis can help categorizing, ordering, manipulating and summarizing of data to obtain answers to research

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questions. It also helps reducing data to intelligible and interpretable form so that the relations of research problems can be studied and tested. Analysis, particularly in case of survey or experimental data, involves estimating the values of unknown parameters of the population and testing of hypotheses for drawing inferences. Analysis, may, therefore, be categorized as descriptive analysis and inferential analysis. (Inferential analysis is often known as statistical analysis.) In this context, we work out various measures that show the size and shape of a distribution(s) along with the study of measuring relationships between two or more variables. We may as well talk of correlation analysis and causal analysis. Correlation analysis studies the joint variation of two or more variables for determining the amount of correlation between two or more variables. It is thus a study of functional relationships existing between two or more variables. This analysis can be termed as regression analysis. Causal analysis is considered relatively more important in experimental researches, whereas in most social and business researches our interest lies in understanding and controlling relationships between variables than with determining causes per se and as such we consider correlation analysis as relatively more important,). In modern times, with the availability of computer facilities, there has been a rapid development of multivariate analysis which may be defined as "all statistical methods which simultaneously analyse more than two variables on a sample of observations Usually the following analyses are involved when we make a reference of multivariate analysis

a) *Multiple Regression Analysis:* This analysis is adopted when the researcher has one dependent variable which is presumed to be a function of two or more independent variables. The objective of this analysis is to make a prediction about the dependent variable based on its covariance with all the concerned independent variables.
b) *Multiple Discriminant Analysis:* This analysis is appropriate when the researcher has a single dependent variable that cannot be measured, but can be classified into two or more groups on the basis of some attribute. The objective of this analysis is to predict an entity's possibility of belonging to a particular group based on several predictor variables.
c) *Multivariate Analysis of Variance (or multiANOVA):* This analysis is an extension of twoway ANOVA, wherein the ratio among group variance to within group variance is worked out on a set of variables.
d) *Canonical Analysis:* This analysis can be used in case of both measurable and non-measurable variables for the purpose of simultaneously predicting a set of dependent variables from their joint covariance with a set of independent variables.
e) *Report Writing:* Research report is considered a major component of the research study; otherwise the research task remains incomplete. As a matter of fact, even the most brilliant hypothesis, highly well designed and conducted research study, and the most striking generalizations and findings are of little value unless they are effectively communicated to others. The purpose of research is not well served unless the findings are made known to others. Research results must invariably enter the general store of knowledge. All this explains the significance of writing research report. Writing a research report is a technical activity which demands all the skills and patience from the researcher. It requires "considerable thought, effort, patience and penetration and an overall approach to the problem, data and analysis, as well as firm control over language and greater objectivity". To write the report, a vast amount of planning and preparation is necessary for organizing and then writing the report. Besides, perfection in the research report is achieved by continuous and persistent thought and creative and intelligent writing. Only hard and patient work on the facts, careful and critical assessment and intelligent planning of the organization of the report can facilitate communication. Well conceived planning and organizing facilitates report writing with proper emphasis on different aspects. The investigator while writing the report may consider the steps like (i) logical analysis of the subjectmatter; (ii) preparation of the final outline; (iii) preparation of the rough draft; (iv) re-writing and polishing; (v) preparation of the final bibliography; and (vi) writing the final draft.

IV. USEFULNESS OF SURVEY METHOD IN PSYCHOLOGY

A survey can be used to investigate the characteristics, behaviors, or opinions of a group of people. These research tools can be used to ask questions about demographic information about characteristics such as sex, religion, ethnicity, and income.

They can also collect information on experiences, opinions, and even hypothetical scenarios. For example, researchers might present people with a possible scenario and then ask them how they might respond in that situation.

How do researchers go about collecting information using surveys?

A survey can be administered in a couple of different ways. In one method known as a structured interview, the researcher asks each participant with the questions. In the other method known as a questionnaire, the participant fills out the survey on his or her own.

You have probably taken many different surveys in the past, although the questionnaire method tends to be the most common.

Surveys are generally standardized to ensure that they have reliability and validity. Standardization is also important so that the results can be generalized to the larger population.

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A. *Advantages*

One of the big benefits of using surveys in psychological research is that they allow researchers to gather a large quantity of data relatively quickly and cheaply. A survey can be administered as a structured interview or as a self-report measure, and data can be collected in person, over the phone, or on a computer.

1) Surveys allow researchers to collect a large amount of data in a relatively short period.
2) Surveys are less expensive than many other data collection techniques.
3) Surveys can be created quickly and administered easily.
4) Surveys can be used to collect information on a broad range of things, including personal facts, attitudes, past behaviors, and opinions.

B. *Disadvantage*

One potential problem with written surveys is the nonresponse bias. Experts suggest that return rates of 85 percent or higher are considered excellent, but anything below 60 percent might have a severe impact on the representativeness of the sample.

1) Poor survey construction and administration can undermine otherwise well-designed studies.
2) The answer choices provided in a survey may not be an accurate reflection of how the participants actually feel.
3) While random sampling is generally used to select participants, response rates can bias the results of a survey.
4) The social desirability bias can lead people to respond in a way that makes them look better than they really are. For example, a respondent might report that they engage in more healthy behaviors than they do in real life.

C. *Types of Surveys*

Surveys can be implemented in a number of different ways. The chances are good that you have participated in a number of different market research surveys in the past.

Some of the most common ways to administer surveys include:

1) *Mail:* An example might include an alumni survey distributed via direct mail by your alma mater.
2) *Telephone:* An example of a telephone survey would be a market research call about your experiences with a certain consumer product.
3) *Online:* Online surveys might focus on your experience with a particular retailer, product, or website.
4) *At Home Interviews:* The U.S. Census is a good example of an at-home interview survey administration.

V. CONCLUDING REMARKS

As indicated, our primary goal for this special issue was to support the development of survey(mixed methods) research in educational psychology. To realize this goal, we sought to showcase high-quality survey methods research studies conducted by educational psychology researchers across a range of topics. We believe this special issue has accomplished that goal by presenting articles that demonstrate rigor, integration of methods, and results that may not have emerged from single method approaches. As such, we think the use of mixed methods by educational psychologists has an important future yet acknowledge that mixed method of survey technique inquiry is not a panacea. However, it is also important to acknowledge that using a survey methods approach is not for the “faint of heart.” First, survey methods research requires knowledge and skills in not just one area of research methods but in three (i.e., qualitative, quantitative, and mixed methods). Researchers in these three areas of research methods have developed expectations and standards for good practice and rigor. This can be a particularly challenging for researchers if they have had little or no education or training in qualitative research methods. This can result in “QUAL-light” research the use of “qualitative data as ‘handmaiden’ or ‘second best’ to the quantitative data”, or the use of mixed methods that leads to the “‘adding and stirring’ of qualitative methods that often takes the form of sprinkling in some vignettes to provide narrative examples of the conclusions already reached by means of quantitative methods” Therefore, researchers interested in using survey methods for their research must also understand and meet those expectations and standards for good practice and rigor in their own work.

Second, in most cases, a mixed methods study, by its very nature ,has the potential to use more resources. Collecting and analyzing data from two approaches has the potential to be more resource-demanding(e.g., time, funding) than using a single method); thus, using a second research method in most cases will increase the time and cost of the project. To ensure adequate expertise and resources, survey methods research is often conducted as a team approach Lastly, journal editors may experience difficulties when handling the review and evaluation of survey (mixed) methods manuscripts. In the field of educational psychology, most journals

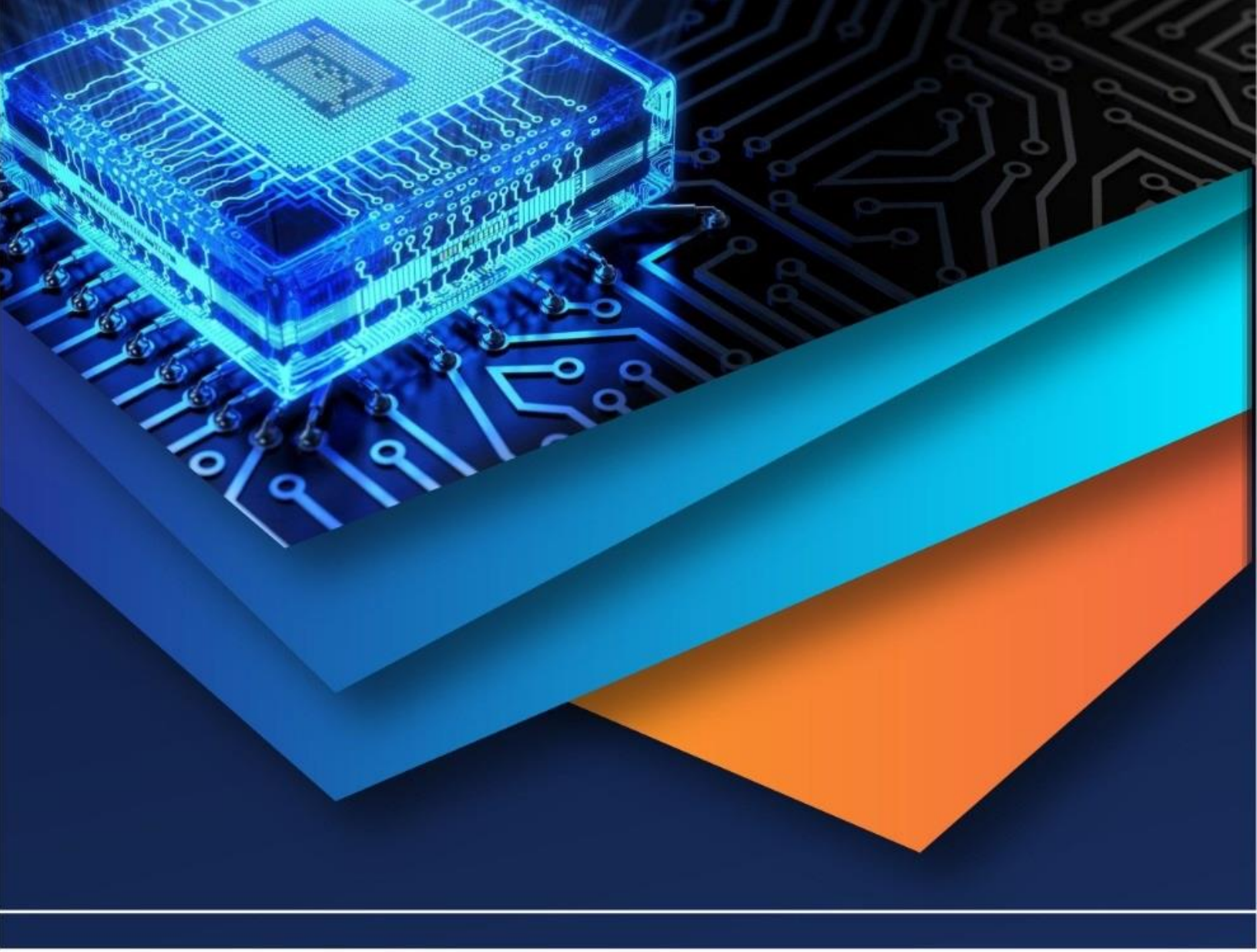
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have a long history of publishing predominantly quantitatively-focused research, although this trend is changing. Nevertheless, it is important for members of editorial boards or reviewers to be sufficiently well-versed or trained in mixed methods research to adequately evaluate survey methods studies, particularly in terms of standards for rigor or integration. While researchers on editorial boards may know, understand, and expect to review manuscripts that use quantitative methods, they may have less understanding of rigor for manuscripts that include qualitative or mixed methods. In addition, mixed methods manuscripts tend to be longer than mono methods manuscripts, and manuscripts that report mixed methods research may approach the page/word limit restriction imposed by some journals. These challenges may discourage researchers from conducting mixed methods research studies or from submitting them to educational psychology journals. As educational psychologists grow more comfortable with producing, consuming, and reviewing mixed methods research, our ability to offer critical appraisal of the quality of the work and contributions to the field will be enhanced. We were encouraged by the quality of work the authors in this special issue produced and wish to thank them for their efforts in conducting and reporting their respective studies. We look forward to reading high-quality mixed methods studies that extend into areas not represented by this special issue. For instance, although none of the articles in the special issue used interventions and experimental research, we believe that mixed methods research can be beneficial for researchers who implement interventions or experimental research to explain intervention challenges, failures, and successes. Mixed methods can help researchers investigate participant experiences during an intervention which can be used to improve or adapt an intervention, or to elaborate or explain between-group and within-group differences. Ultimately the promise forsurvey(mixed) methods research in educational psychology will emerge from needs within our field and be realized by the creativity of our community of scholars.

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