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RESEARCH METHODS IN COMMUNICATION RESEARCH

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Abstract

Research is collecting data. It is also known as the systematic approach to obtaining and confirming new and reliable knowledge". It is also a systematic and orderly (following a series of steps). The purpose is new knowledge, which must be reliable. As stated by Baxter and Babbie (2003), research is the systematic effort to secure answers to questions. Research questions deal with issues requiring data and information. This article gives an outline of research methods that were followed in the study. It provides information on the participants, that is, the criteria for inclusion in the study, who the participants were and how they were sampled. The researcher describes the research design that was chosen for the purpose of this study and the reasons for this choice. The instrument that was used for data collection is also described and the procedures that were followed to carry out this study are included. The researcher also discusses the methods used to analyse the data. Lastly, this paper will help researcher to explain how to choose the proper method and will guide researchers to write their methodology in academically.

Keywords: Research method, systematic approach

INTRODUCTION

Methodology and method are often (incorrectly) used interchangeably. Methodology is the study of the general approach to inquiry in a given field. However, method is the specific techniques, tools or procedures applied to achieve a given objective. Research methods in social science include regression analysis, mathematical analysis, operations research, surveys, data gathering, etc. Methodology is the core of your dissertation as it is a proof that you use the scientific method.

So, it is very important, that methodology answers two main questions:

- How did researcher collect or generate the data?
- How did researcher analyse the data?

Others could repeat the experiment and evaluate whether the results are reproducible. The audience can judge whether the results and conclusions are valid. The explanation of the collection and the analysis of your data is very important because readers need to know the reasons why you chose a particular method or procedure instead of others. Readers also need to know that the collection or the generation of the data is valid in the field of study.

“Methodology” implies more than simply the methods you intend to use to collect data. It is often necessary to include a consideration of the concepts and theories which underlie the methods. When you describe your methods it is necessary to state how you have addressed the research questions and/or hypotheses. The methods should be described in enough detail for the study to be replicated, or at least repeated in a similar way in another situation. Every stage should be explained and justified with clear reasons for the choice of your particular methods and materials.

As stated by Abdul Rauf Ridzuan et al., (2012), there are many different ways to approach the research that fulfils the requirements of a dissertation. These may vary both within and between disciplines. It is important to consider the expectations and possibilities concerning research in your own field. Discuss the anticipated problems in the process of the data collection and the steps you took to prevent them. Present the rationale for why you chose specific experimental procedures. Provide sufficient information of the whole process so that others could replicate your study. You can do this by:

- giving a completely accurate description of the data collection equipment and the techniques.
- explaining how you collected the data and analyzed them.

COMMUNICATION IS A SCIENCE

If the scholar uses the *research methods* to know things about communication, then communication is a *science*. All communication research states problems sets criteria for permissible interpretation, and makes careful observations of communication transaction. Thus, using **research methods** in communication makes communication a **scientific** study area. The study of communication is a science if one chooses to use the scientific method to inquire into it.

TYPES OF RESEARCH

Types of research methods can be broadly divided into two quantitative and qualitative categories.

- Quantitative research “describes, infers, and resolves problems using numbers. Emphasis is placed on the collection of numerical data, the summary of those data and the drawing of inferences from the data”.

- Qualitative research, on the other hand, is based on words, feelings, emotions, sounds and other non-numerical and unquantifiable elements. It has been noted that “information is considered qualitative in nature if it cannot be analysed by means of mathematical techniques. This characteristic may also mean that an incident does not take place often enough to allow reliable data to be collected”.

DETERMINING UNIT OF ANALYSIS

Units of analysis in a study are typically also the units of observation. Are those things we examine in order to create summary descriptions and to explain or understand differences among them.

- **Individuals:** The most typical units of analysis. We tend to describe, explain, and understand social groups by aggregating the descriptions of individuals. Eg: Specific groups: students, gays, consumers.
- **Groups:** Social groups themselves may also be the units of analysis for comm research. Family from rural VS urban area. Eg: Ethnomethodology.
- **Organizations:** Formal social organizations can be the units of analysis. A population of all corporations. Eg: MAS, Astro, Media Prima case studies.
- **Social Artifacts:** Any product or social beings or their behavior. Focus on nonreactive research or unobtrusive research (unaware of being studied). Eg: Research on divorce through archival records, ads on Saturday morning children cartoons and etc.

FORMULATING RESEARCH DESIGN

The research design refers to the overall strategy that researcher choose to integrate the different components of the study in a coherent and logical way, thereby, ensuring researcher will effectively address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data. It also includes the collected data, tools that will be used and how they will be used and the aims for analyzing data collected.

DEVELOPING THEORETIC CONCEPTUALIZATIONS IN COMMUNICATION

Research attempts to find relationships and explain them. Theories are used to help us understand these relationships. Formal and Informal theories are sources of research hypotheses. A major goal of research is to develop theory and explanations.

FUNCTION OF THEORY IN RESEARCH

- **Description:** Is the lowest level of theorizing in which behavior is characterized into different forms. Eg: Research to identify methods that people used to influence others. Some researchers might say patterns of conversations and some might say interpersonal conflicts and etc.
- **Explanation:** Involves taking an event and treating it as an instance of a larger system of things. Usually we explain things that have occurred. Eg: The Uses and Gratifications

theory has been used to explain the reasons people use the internet as a mass media source.

- Prediction: Describes what can be expected in the future. Is a useful way to explain things. Eg: High level of uncertainty cause increases in information seeking behavior.
- Control: Is the power to direct things. Some theories provide information to influence our own personal environment. Eg: Agenda Setting theory (IMDB / Rohingya refugees).

WRITING RESEARCH METHOD

The method section of a study describes what the researchers did in enough detail so that others could repeat or replicate.

- Data or Documentary Sample: Some documents or sample data are used. Eg: The materials in the sample are documents, including oral and video records which used in content analysis.
- Operational Definitions of Variables: It includes (1) manipulations of tasks completed to make observations; and (2) special measures used for key variables, or (3) methods for assignment of subjects to different conditions based on some characteristics.
- Procedures: Researcher describe how study was completed step by step. (research design)
- Methods of Analysis Data: Qualitative studies rely on theoretic orientations to interpret data and quantitative used SPSS to analysed data.

TWO TYPES OF SAMPLING METHODS

- 1) Probability Sampling: Involves the selection of a ‘random sample’ from a list containing the names of everyone in the population you are interested in studying. It is primary method for selecting large, representative samples for social science research. Eg: Political Polls
 - Simple Random Sampling: Is the basic sampling method assumed in the statistical computations of quantitative communication research. For students, they choose people from industry to collect the data for their assignment (CEO, Director, Producer, Prof, Ustaz, Counselor)
 - Systematic Sampling: When a list is available, researchers often employ systematic sampling rather than the SRS. Every k th element in the total list is chosen systematically for inclusion in the sample. Eg: If the list contains 10 000 elements and you want a sample of 1000, you select every tenth element for your sample.
 - Stratified sampling: Is a method for obtaining *a greater degree of representativeness* – decreasing the probable sampling error. The ultimate function of stratification is to organize the population into homogeneous subsets and to select the appropriate number of elements from each. Eg: UiTM students – Masscomm – SNS users – selected systematically.
 - Cluster sampling: May be used when it’s either impossible or impractical to compile an exhaustive list of the elements composing the target population. Eg: All UiTM students

in Malaysia. The population elements are already grouped into subpopulations, and a list of those subpopulations either exists or can be created practically.

If all members of a population were identical in all respects – all demographic characteristics, attitudes, experiences, behaviors and so on (homogeneity) – there would be no need for careful sampling procedures. One case would suffice to study the characteristics of the whole population.

- 2) Nonprobability Sampling: Convenience sampling, Purposive / judgmental sampling, Snowball sampling and Quota sampling.
 - Purposive Sampling: Select sample on the basis of your own knowledge of the population and the nature of your research aims. It based on your own judgment and the purpose of the study. Eg: In the initial design of questionnaire, you might wish to select the widest variety of respondents to test the broad applicability questions usually used in pilot study.
 - Convenience sampling: It relies on available participants, such as stopping people at a street corner or some other location. It is risky sampling method – to generalize the results to a larger population of people in general.
 - Purposive sampling: Select sample on the basis of your own knowledge of the population and the nature of your research aims. It based on your own judgment and the purpose of the study. Eg: In the initial design of questionnaire, you might wish to select the widest variety of respondents to test the broad applicability questions usually used in pilot study. For students, they choose people from industry to collect the data for their assignment (CEO, Director, Producer, Prof, Ustaz, Caunselor)
 - Snowball Sampling: Some consider as accidental sampling. It is appropriate when the members of a special population are difficult to locate. Snowball refers to the process of accumulation as each located participant suggests other participants. Eg: The researcher past the questionnaire to their friends and then pass also to their family members.
 - Quota Sampling: Addresses the issue of representativeness. It begins with a matrix, or table, describing the characteristics of the target population. All of the people assigned a weight appropriate to their portion of the total population.

SAMPLE SIZE FOR QUANTITATIVE RESEARCH

Sample size is determined according to the sampling design and population of this research. According to Krejcie and Morgan (1970), the total population of the people in Malaysia is about 31.93 million (N). Thus, the sample size for this research is 384 (S) samples.

TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size
"S" is sample size.

Krejcie, Robert V., Morgan, Daryle W., "Determining Sample Size for Research Activities", Educational and Psychological Measurement, 1970.

Researcher also can use other tools such as raosoft.com and G-power to get the sample size. The minimum recommended size for survey is 377 for the whole population with 95% confidence level. If researcher create a sample of this many people and get responses from everyone, researcher more likely to get a correct answer than researcher would from a large sample where only a small percentage of the sample responds to survey (Ridzuan et al., 2015).

QUANTITATIVE DATA ANALYSIS

The researcher will conduct data analysis after all the questionnaires had being collected to find out the result whether the hypotheses are significant or not by using Statistical Package for Social Science (SPSS). Statistical technique will be used to sum up the data. This is also important to obtain feasibility and adequacy of data to be used in this research. Descriptive analysis will be done to transfer raw data into much easier from to be understood and interpret. Data that have been collected and analyzed will be illustrated in form of table and graph for better understanding. Data analysis will include reliability analysis, frequency analysis, descriptive analysis, Pearson correlation analysis and regression analysis to provide significant result that will enhance and develop more knowledge.

SAMPLE SIZE FOR QUALITATIVE RESEARCH

Sample size in qualitative data analysis doesn't work in quite the same way. Individual subjects are more complex (e.g. an interview rather than a set of variable values) and it depends how complex an analysis you are trying to create (e.g. as measured by the number of themes or categories identified within the data). What researchers are often looking for is *saturation* - where adding new data does not improve the explanations of the themes or the categories or add any new ones. That is when you should stop.

THEMATIC ANALYSIS FOR QUALITATIVE RESEARCH

Braun and Clarke (2006) define thematic analysis as: “*A method for identifying, analyzing and reporting patterns within data. Thematic analysis is a categorizing strategy for qualitative data which the researchers are able to review their data, make notes and start to sort it to category. It is the most frequently used method of qualitative analysis.*”

Thematic analysis is a widely used method of analysis in qualitative research. In 2006 Braun and Clarke published an article that described to novice researchers how to use thematic analysis in a step-by-step manner. Braun and Clarke (2006) state that thematic analysis is a foundational method of analysis that needed to be defined and described to solidify its place in qualitative research.

Thematic analysis is simple to use which lends itself to use for novice researchers who are unfamiliar with more complex types of qualitative analysis. It allows for flexibility in the researchers’ choice of theoretical framework. Some other methods of analysis are closely tied to specific theories, but thematic analysis can be used with any theory the researcher chooses. Through this flexibility, thematic analysis allows for rich, detailed and complex description of your data (Renee and Jill, n.d.)

CONCLUSION

This article has focused on the methodology that can be used in research. An explanation of qualitative and quantitative research as methods for data collection and analysis are given. Measures followed during the data collection were discussed in this article and the information about the sample was provided.

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