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Research Article

The Relevance of Questionnaires in Research

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Abstract

Questionnaires are an important part of research technique since they are structured tools for gathering information about people's knowledge, attitudes, views, and behaviours. They are especially useful for surveys with big populations that are spread out across a wide area, as they provide a cheap and quick way to gather data. Well-designed questionnaires are mostly used for quantitative research, but they can also be used in mixed-methods studies by include open-ended questions that give rich qualitative insights. This article looks at the numerous kinds of questionnaires, why they are important for research, their main benefits (including standardisation and anonymity), and what you need to do to make sure they are valid and reliable.

Keywords: Questionnaire, Survey Research, Data Collection, Research Methodology, Quantitative Data, Validation.

Introduction

Questionnaires continue to be one of the most commonly used tools in research technique because they provide a systematic and structured way to get data from respondents. A research questionnaire usually has a number of well-thought-out questions that are meant to find out what respondents know, how they feel, what they do, and what they think. It is frequently utilised in survey research to investigate particular occurrences, evaluate hypotheses, and track trends across time [1]. Questionnaires are frequently self-administered, which makes data collecting more efficient, consistent, and objective than interviews, which can take a long time and be biased by the interviewer. When constructed correctly, questionnaires are the most important part of scientifically sound and accurate research [2-3].

Questionnaires are becoming more popular in research nowadays since more and more fields, like health sciences, social sciences, education, and business, need to make

decisions based on facts. Researchers need tools that can quickly gather information from big and diverse groups of people in a time when technology is changing quickly and the world is becoming more connected. Questionnaires meet this demand by providing a flexible and adaptive way to collect data that may be done on both classic paper forms and current digital platforms. Researchers may now collect data in real time and across geographical borders thanks to on-line survey tools, mobile apps, and web-based forms. This change has made questionnaires far more useful in both academic and practical research settings.

Questionnaires are important because they can collect a wide range of information from different groups of people. Researchers utilise questionnaires to gather demographic data, including age, gender, income, educational attainment, and occupation, along with behavioural patterns, such as the frequency of specific habits or activities. Furthermore, sur-

veys are essential for evaluating attitudes and opinions, allowing researchers to comprehend perceptions, beliefs, and emotional reactions to particular issues [4]. For instance, in healthcare research, questionnaires are often used to find out how happy patients are, how well they follow their therapy, and how good their quality of life is. In educational research, they help figure out how well teachers are doing, how interested students are, and how well they are learning. In market research, surveys help us understand what people like, how they buy things, and how they see a brand.

Also, questionnaires are very important in needs assessment research since they assist find gaps in services, policies, or initiatives. Researchers and policymakers can create evidence-based policies that meet the needs of certain groups by systematically gathering feedback from those groups. Questionnaires are especially useful because they can turn people's subjective experiences into structured and measurable facts. This makes it possible to do statistical analysis and make sense of the results [5]. This transition is a key part of the scientific process because it lets researchers make generalisations, test theories, and help people make decisions.

One of the main reasons why questionnaires are used so often in academic, medical, and market research is because they have so many benefits. First, surveys are very cost-effective, especially when they are sent out online. This is because they don't require printing, travel, or extra staff. This makes them great for research projects that don't have a lot of money or need a lot of people to participate. Second, surveys are very scalable and can be sent to thousands of people at once, no matter where they are in the world. This tendency to grow is especially useful in epidemiological studies, nationwide surveys, and research partnerships between countries.

Third, questionnaires help make things more standard since all of the people who answer them get the same questions in the same format. This makes sure that the data gathering is consistent and reduces variability [6]. Standardisation makes data more reliable and makes it easier to compare data from different groups or time periods. Also, questionnaires typically let people stay anonymous, which makes them more likely to give honest and open answers, especially when the questions are about sensitive subjects like health, wealth, or personal values. This anonymity can help make comments more accurate by lowering social desirability bias.

Additionally, the organised framework of many types of questionnaires, like Likert scales, rating scales, and multiple-choice questions, makes it easier to analyse the data. Researchers may easily code and analyse data from these formats using statistical tools, which helps them quickly find patterns, connections, and trends [7]. Advanced analytical approaches, such as regression analysis, factor analysis, and structural equation modelling, can be utilised on questionnaire data, thereby augmenting the depth and complexity

of study outcomes.

You can group questionnaires by how they are set up and how they are given out. Structured questionnaires, or closed-ended questionnaires, have response alternatives that have already been set up, including Yes/No questions, multiple-choice items, or Likert scales. These are especially helpful for quantitative research since they make it easy to compare and analyse data statistically [8]. Using standardised response categories makes guarantee that all the answers are the same and makes it easier to combine data. This is why structured questionnaires are great for big surveys and testing hypotheses.

Unstructured or open-ended questionnaires, on the other hand, let people say what they think in their own words, which gives you more detailed information and better qualitative data. These kinds of questionnaires are very useful in exploratory research, when the goal is to learn as much as possible about a phenomenon without forcing people to choose from a set of pre-defined response options. Open-ended questions allow respondents to expand on their experiences, offer explanations, and present new viewpoints that the researcher may not have foreseen.

Semi-structured surveys integrate both methodologies, featuring closed-ended questions for quantitative assessment and open-ended questions for qualitative investigation. This mixed-methods approach is especially helpful in research that needs both numbers and an awareness of the situation [9]. Semi-structured questionnaires combine quantitative and qualitative features to give a fuller picture of study challenges and make the findings stronger overall.

Even if they have their pros, questionnaires are only useful if they are reliable and valid. Validity is how well a questionnaire assesses what it is supposed to measure. During the design process, it's important to think about many types of validity, such as content validity, construct validity, and criterion validity. To get accurate results, you need to carefully word your questions, make sure they fit with your research goals, and get opinion from experts in the field. Pre-testing and pilot studies are necessary stages to make sure that the questionnaire correctly measures the constructs it is meant to measure.

On the other side, reliability means that the tool gives the same results every time it is used under the same conditions. A dependable questionnaire produces consistent and replicable outcomes throughout time. People often use measures like Cronbach's alpha to check for internal consistency, especially for scales that measure attitudes or perceptions. Depending on the type of study, test-retest reliability and inter-rater reliability are also significant things to think about. To make sure something is reliable, questions must be worded clearly and without ambiguity, response formats must be consistent, and scaling procedures must be acceptable.

Pilot testing is very important for making things more reliable and genuine. Researchers can find possible problems with

the questionnaire, such unclear phrasing, confusing instructions, or technical problems, by giving it to a small group of people before it is used on a larger scale. Pilot testing is also a good way to guess how long it will take to finish and see how easy the questionnaire is to use overall [10]. You can use the feedback you get at this point to make the instrument better and of higher quality.

Along with reliability and validity, ethical issues are very important in research that uses questionnaires. Researchers must make sure that everyone who answers the questions does so of their own free will and that they give their informed permission. It is important to keep information private and confidential, especially when it is sensitive. Ethical principles also say that questionnaires must be made in a way that doesn't hurt, upset, or make people uncomfortable. For the research process to stay honest and trustworthy, it is important to be clear about the study's goals and how the data will be used.

Despite their many benefits, questionnaires do have some drawbacks. One major problem is response bias, which happens when people give answers that they think would make them look good instead of honest ones. This makes the data less accurate. This is especially frequent in research that look at sensitive subjects like health behaviours, wealth, or societal attitudes. To lessen this prejudice, you can use methods like collecting data anonymously, asking questions indirectly, and being careful about how you structure your questions.

Another restriction is the problem of low response rates, which can cause non-response bias if the opinions of those who do respond are very different from those of those who do not [11]. Low response rates could make the sample less representative and the results less applicable to other situations. Follow-up reminders, rewards, and making the questionnaire easy to use are all strategies that can assist boost response rates.

Another possible problem is that people might not understand the questions correctly, especially in self-administered questionnaires where the researcher can't help them. Questions that are unclear or too complicated can lead to wrong answers and lower the quality of the data. Researchers need to make sure that their queries are simple, short, and free of technical jargon in order to solve this problem. You can also utilise pre-testing and cognitive interviewing methods to find and fix any possible misunderstandings.

Additionally, questionnaires could not have the depth needed to cover complicated or emotionally charged subjects. Questionnaires, in contrast to interviews or focus group discussions, do not facilitate probing or follow-up enquiries, hence constraining the researcher's capacity to obtain more profound insights into respondents' experiences and viewpoints [12]. Consequently, questionnaires are frequently supplemented by qualitative approaches in mixed-methods research to yield a more thorough comprehension of the re-

search issue.

Conclusion

Questionnaires are still an important instrument for current research since they provide an organised, efficient, and cheap way to get information from a wide range of people. Their capacity to transform subjective experiences into measurable facts renders them fundamental to empirical study across multiple disciplines. They do have some problems, but these can be fixed by careful planning, pilot testing, and following ethical guidelines. As research methods continue to change, the use of questionnaires will probably grow, especially with the addition of digital technologies and more complex ways to analyse data. When properly developed and executed, surveys remain crucial in the progression of knowledge and evidence-based practice.

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