

# **Use of Unobtrusive Research Tools in Geographical Survey Report Writing and Its Impact on Effective Research**

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## **Abstract**

Qualitative data collection methods include in-depth interviews, direct observations, and written documents. Quality is assessed based on credibility, transferability, dependability, and conformability. Unobtrusive measures collect data without researcher interaction, while indirect measures involve unnoticed observation. Content analysis systematically evaluates existing texts and is unobtrusive, as is secondary analysis of existing data. Geographical Survey involves systematically collecting, analyzing, and interpreting geographic data to understand physical characteristics of specific areas. Measuring geographic insights through targeted Geographic Survey questions helps marketers, logisticians, and researchers understand audience locations and travel patterns. These surveys include basic to complex location-based questions that capture regional trends and preferences. A socio-economic survey is a crucial source of statistical data that provides insights into household expenditure and income, as well as information on housing status, individual and household characteristics, and living conditions. Socio-economic and demographic surveys are essential tools used globally to gather comprehensive data regarding the characteristics of various populations. This data is instrumental in conducting demographic and economic analyses, planning educational programs and workforce development, studying poverty levels, and evaluating progress towards national objectives. These surveys play a critical role in informing policies and strategic planning across different sectors. The five socio-economic factors identified are income, education, employment, community safety, and social supports. These factors significantly impact lifestyle choices, overall lifespan, and various aspects of health, including the ability to access medical care and manage stress effectively.

**Keywords:** Qualitative data, Direct observations, Unobtrusive measures, Content analysis, Geographical survey, Demographic surveys, Socio-economic survey.

## **1. Introduction**

The pursuit of knowledge is referred to as "research" in everyday discourse. Research can also be viewed as a systematic, scientific quest for pertinent information on a particular topic. Actually, research is a type of artistic scientific investigation. According to "Redman and Mory," research is a "systematized effort to gather new knowledge." For some people, learning is a step from the known to the unknown. It is, in fact, a voyage of discovery. Since the word "research" relates to an academic endeavor, it should only be used in a technical sense. Clifford Woody states that defining and redefining problems, developing hypotheses or proposed solutions, collecting, organizing, and analyzing data, making deductions, and drawing conclusions are all necessary steps in conducting research.

Understanding research methodology empowers individuals to navigate life's challenges with objectivity, allowing them to make informed decisions. Research methods encompass the techniques employed by researchers to tackle their specific problems, making methodology a scientific study of research practices. Unobtrusive methods facilitate data collection without direct interaction with subjects, while historical comparative approaches analyze changes across various cases over time or at a specific moment across different societies. Data collection methods in geography are divided into qualitative, which includes observation, surveys, and interviews, and quantitative approaches like specimen sampling, mapping, and remote sensing. Unobtrusive measures allow data collection without direct researcher intervention, maintaining the integrity of observational data by preventing behavioral changes in respondents. In contrast to direct observation, these methods avoid altering behavior through the researcher's presence.

While unobtrusive methods reduce bias, they also limit control over data collection, and not all constructs may have unobtrusive measures. Various survey types, including land, topographic, and hydrographic surveys, fulfill specific purposes such as mapping and establishing property boundaries. Qualitative research focuses on exploring human experiences and perceptions regarding various topics. It often contrasts with quantitative research, yet many scholars adopt mixed methods and interdisciplinary approaches. Understanding the goals and methodologies of different research paradigms is crucial for effective research design. Qualitative methods include interviews, observations, and journaling and are widely used across fields such as education, nursing, and sociology. However, newcomers to qualitative research typically require guidance in defining boundaries, selecting methods, ensuring appropriate data types, and identifying theoretical frameworks. Descriptive social science research aims to provide factual insights into specific entities or phenomena.

Research methodology is taught across various academic disciplines by individuals committed to different research paradigms. While quantitative and qualitative methodologies differ in philosophy and methods, both share a similar research process. The distinctions lie in data collection methods, data processing and analysis procedures, and the communication style of findings. Unobtrusive methods rely on the indirect collection of data from research participants, distinguishing them from obtrusive methods like experiments and surveys, which require researchers to actively engage in the studied environment. Present study assists researchers and academicians in enhancing their knowledge related to geographical survey report writing.

## **2. Hypotheses**

Location, place, region, movement, and human-environmental interaction are the five primary topics of geography. These themes are essential ideas in the study of geography, and although they can be used separately, they work best when combined to offer a thorough comprehension of geographic phenomena. All geography-related thinking and learning are based on the four ideas of geographic thinking: spatial significance, patterns and trends, interrelationships, and geographic viewpoint. The questions that want to respond to and the issue that are attempting to resolve will determine the best approach. Focus groups, surveys, interviews, and observations are the most popular primary market research techniques.

## **3. Objectives**

- i. To the concept of unobtrusive research
- ii. To know the variables in survey research
- iii. To comprehend mapping qualitative research methods
- iv. To explore context of Unobtrusive tools for geographical surveys
- v. To avail advantages of unobtrusive research and its implication in geographical survey report writing

## **4. Methodology**

This study highlights the importance of primary and secondary data in research paper development, examining various teaching techniques and the integration of relevant literature in educational planning and instruction.

## **5. Literature Review**

1) Raymond Lee's book, "Unobtrusive Methods in Social Research" (2002), provides a contemporary examination of unobtrusive research methods, delving into the theoretical foundations of Webb et al.'s approach and discussing ethical considerations. It includes insights on utilizing the Internet for unobtrusive research. This comprehensive and accessible work serves as a key resource for undergraduates and encourages postgraduate students and professionals to adopt these methods in their research.

2) Patricia Levy's 2006 textbook, "The Practice of Qualitative Research," offers a comprehensive introduction to qualitative research in the social sciences. It presents a holistic methodology by aligning research questions with suitable qualitative methods, including mainstream techniques and

unconventional approaches like oral history and visual methods. The text also discusses ethical considerations and challenges faced by novice researchers in human subject's research.

3) Kumar Abhishek (2024), his book on 'Research Methodology' specific methods differ among disciplines—such as biologists using microscopes and historians analyzing documents—the overall research approach remains consistent: identifying questions, collecting relevant data, analyzing it, and drawing conclusions. He also highlights attitude measurement scale.

4) The Unobtrusive Researcher by Allan Kellehear (2020) serves as a comprehensive guide to various research methods that can complement or substitute traditional social research techniques. This book is invaluable for both novice and seasoned researchers across disciplines such as Social Sciences, Education, Communication Studies, and Cultural Studies, offering practical insights into unobtrusive research approaches.

## ❖ **Description of Study**

Webb et al. (1966) introduced the concept of 'unobtrusive measures,' which are methods of data collection that do not require direct interaction with research subjects. These measures are deemed 'non-reactive' (Webb et al. 1981) as they mitigate issues related to the researcher's presence. They emphasize that social researchers should focus on data sources such as physical traces, non-participant observation, and documentary materials. Unobtrusive methods offer a means of gathering data that complements direct elicitation, each having distinct strengths and weaknesses. These methods can serve as alternatives when direct approaches are challenging or unsafe. However, current methods for creating unobtrusive measures are inadequate. The development of heuristic strategies may be more suitable for generating non-reactive data tailored to specific research contexts.

### ➤ **Developing a conceptual framework**

The conceptual framework underpins the research problem by emphasizing specific aspects pertinent to the study, unlike the theoretical framework, which covers broader theories. Unobtrusive methods arise from the idea that society can be understood through the examination of material culture, using texts as the basis for the research process to explore social life.

### ➤ **Sources of research problems**

Sources of research problems are critical for those yet to choose a research topic. If a topic is already selected, the next steps should be considered. Research in the humanities typically revolves around four Ps as follows-

**'P'-People:** Study involves examining individuals, organizations, groups, and communities to gather essential information about them.

**'P'- Problems:** encompass issues, situations, associations, needs, and demographic profiles.

**'P'- Programmes:** Programmes encompass various aspects including contents, structure, outcomes, attributes, consumer satisfaction, and more.

**'P'-Phenomena:** Phenomena analyze the causes, effects, and relationships related to the phenomena.

Most research in academic or occupational fields centers around the four Ps, focusing on the information required to address service research questions.

### ➤ **Considerations in selecting a research problem**

When selecting a research problem or topic, it is essential to consider various factors to ensure the study is manageable and that motivation is maintained.i.e.

- Interest
- Magnitude

- Measurement of concepts
- Level of expertise
- Relevance
- Availability of data
- Ethical issues

#### ➤ **The difference between a concept and a variable**

The main distinction between a concept and a variable lies in measurability. Concepts are subjective mental images that vary among individuals and cannot be measured, while variables are measurable with varying accuracy. Measuring concepts can lead to inconsistencies in comparison. Variables, unlike concepts, can be quantified using various measurement units.

#### ➤ **Types of Variables**

A variable can be classified in a number of ways. The classification developed here results from looking at variable in three different ways.

- The causal relationship
- The study region
- The unit of measurement

This document categorizes variables based on three perspectives: causal relationships, study regions, and measurement units. It defines key research terminology: independent variables (change variables), dependent variables (outcome/effect variables), extraneous variables (unmeasured factors affecting the cause-effect relationship), and intervening variables (which link cause and effect).

#### ➤ **Mapping Qualitative Research Methods**

This document outlines the diversity of qualitative research design, presenting a total of 21 distinct approaches. These include action research, archival research, biographical methods, case studies, clinical research, direct research, document interpretation, ethnography, grounded theory, interviewing, interpretative methods, knowledge-based views, narrative approaches, observational techniques, paper and pencil methods, participant observation, participative inquiry, personal experience methods, policy capturing, surveys, and visual methods. Additionally, the document addresses various topics within qualitative analysis such as concept mapping, conjoint analysis, content analysis, interpretive methods, multisource ratings, narrative analysis, and semiotic analysis, illustrating the wide-ranging application and significance of qualitative methods in research.

#### ➤ **Obtrusive and Unobtrusive in the context of geography**

Unobtrusive observation techniques are designed to minimize interaction with subjects, thereby reducing the possibility of altering their natural behavior. This method can, however, lead to a lack of contextual understanding, as it often relies on data collected without the participants' knowledge. In situations where contextual information is critical, obtrusive observation is favored, as it involves direct interaction, enabling researchers to gather richer and more nuanced data, though it may influence the behavior of the participants. Obtrusive methods include mechanisms like surveys and interviews, where the process of data collection itself can modify the responses of participants. Conversely, unobtrusive methods, such as archival research and distant observation, aim to collect data quietly, thus observing behaviors without direct interference or prompting from the researcher. Each approach has its advantages and drawbacks, depending on the research goals and the level of insight required.

#### ➤ **Unobtrusive Measures**

Unobtrusive measures, as defined by Webb in 1988, refer to research methodologies that enable data collection without the researcher's direct involvement in the interaction between respondents and the data-gathering instruments. This method is crucial because when researchers are present, their influence may skew respondents' behavior, leading individuals to present themselves in a more favorable light or align with

perceived expectations of the researcher. For instance, the administration of questionnaires can disrupt the natural flow of behavior, causing respondents to grow fatigued or even resentful toward the survey questions posed. Such emotional responses can compromise the authenticity of the data collected, thereby highlighting the importance of unobtrusive methods in obtaining genuine insights into respondent behavior.

#### ➤ **Unobtrusive Research- Indirect Measures**

An indirect measure is a naturally occurring, unobtrusive metric within research that allows researchers to collect data without the respondents' awareness. The variety of indirect measures is only restricted by the researcher's creativity and ingenuity.

#### ➤ **Unobtrusive Research- Content Analysis**

Content analysis is a methodological approach that investigates text documents to discern patterns and themes by employing quantitative, qualitative, or hybrid strategies. It includes techniques such as thematic analysis, indexing methods like Key Words in Context (KWIC), and quantitative descriptive analyses that assess characteristics like word frequency. This technique is applicable to diverse types of texts, including field notes and academic articles.

#### ➤ **Advantages of Unobtrusive Methods**

- Unobtrusive measures are research techniques that do not interfere with or alter the social environment, leading to minimal participant reaction and behavior modification. This characteristic allows for the repeatability of research, enabling researchers to revisit sites for continued data collection.
- Consequently, these methods may provide a more accurate measurement of actual behavior compared to reported behavior, as traditional methods like interviews and questionnaires are susceptible to inaccurate self-reporting. The validity and reliability of research data may thus be enhanced through the employment of unobtrusive measures.
- Additionally, unobtrusive data collection often offers easier access to relevant information, as certain observational measures can be conducted without the need for explicit permissions, facilitating a more streamlined research process.

#### ➤ **Tools of Unobtrusive Method**

- Written and audio visual records
- Material Culture (Physical object)
- Simple Observation

### **6. Conclusion**

Unobtrusive research tools in geographical survey report writing enhance the effectiveness of research by allowing for the collection of data without direct interaction with subjects. This method minimizes biases and improves the reliability of findings, as it involves observing behavior in natural settings. Consequently, the resulting reports are more comprehensive and reflective of true geographic phenomena. The Unobtrusive research investigation designed to explore, describe and explain the phenomenon of local economic development in the study area and to determine the influence of natural, social, tenure, historical and marketing issues on that development initiative. This element of explanation is important as it permits the identification of causal factors, opportunities, reliability and possible constraints. Unobtrusive research involves data collection methods that do not disturb the subjects being studied, applicable in both qualitative and quantitative research. Unobtrusive research tools play a significant role in geographical survey report writing by providing data that minimizes researcher influence, thereby enhancing the validity of findings. These tools allow for the collection of information without direct interaction with subjects, leading to more authentic insights. The impact of such methods on effective research includes improved accuracy and reliability of data, fostering rigorous analysis and informed decision-making.

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