

"Data Collection Skills and Techniques in Social Science and Humanities: Political Science as a pattern"

Dr. Waleed Al-Modallal

Islamic University of Gaza P.O.Box 108 Gaza, Palestine

Email: wmodallal@iugaza.edu.ps

Abstract: No doubt that any academic research seeks to find out the absolute facts and the casual external or internal reasons stand behind. This mission is easier in science than humanities, since we can test the relevant variables in science while in humanities we cannot do it at the same level of accuracy.

Therefore, there are varying methods in any research paper, but since utilising one research method is insufficient and uncovering the "how" and "why" and that all research methods have their advantages and their limitations. Hence it is common to combine several methods in a single piece of research, using each to supplement and check on the others so the combination of the best features of different approaches as and when appropriate that will strengthen the research methodology and will be completed and hopefully illuminated by others, this is called "triangulation".

Distinguishing between quantitative and qualitative research approaches at this research specially those used in political science has led us further to identify the various contributions we can expect from each to the final research product.

مهارات وتقنيات جمع المعلومات في العلوم الاجتماعية والإنسانية، العلوم السياسية نموذجاً

ملخص: مما لا شك فيه أن البحث العلمي يهدف للوصول إلى الحقيقة المجردة، ويسعى للبوح بالعلاقات العلية بين عناصر الظاهرة أو الظاهر، والعوامل الداخلة والمؤثرة فيها، والمفسرة لها. وإذا كانت هذه المهمة سهلة في العلوم الطبيعية حيث يمكننا اختبار المتغيرات المختلفة، فإنه من الصعوبة بمكان أن تحصل على نفس الدقة في العلوم الإنسانية.

ويمكن ملاحظة استخدام العديد من المناهج وطرق البحث في البحث الواحد، طالما أن استخدام طريقة واحدة غير كافية للإجابة عن "كيف" و "لماذا"، ولأن معظم مناهج البحث لديها جوانب قصور ومزايا في آن معا، فإن ذلك يستدعي استخدام أكثر من طريقة أو منهج في البحث وذلك للاستفادة من ميزات هذه المناهج مجتمعة، ولتجاوز جوانب القصور الذي يمكن أن تعانيه هذه المناهج، وهو ما يسمى بمنهج "التثليث" أي استخدام أكثر من منهج بحث لدراسة المسألة الواحدة.

يوضح هذا البحث الإيجابيات والسلبيات التي تترتب على استخدام طرق البحث المختلفة وخاصة تلك المستخدمة في العلوم السياسية من خلال تناول مناهج البحث الكمية والكيفية وصولاً إلى أحسن النتائج.

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Introduction:

Social science researchers have long debated the use of qualitative and quantitative research (Smith, J.K.1983; Bannister 1987; Hammersley 1989; Ross 1991). Historically, qualitative researchers have criticized quantitative studies for their irrelevance and misrepresentation of social reality. Conversely, quantitative researchers have suspected that qualitative research is unreliable and invalid.

A key way to increase reality and accuracy of any research results is through the integration of multiple methods in the study of the same phenomenon “triangulation”. Triangulation of qualitative and quantitative data often reveals richer results and insights than the use of either type of data alone. However, despite the benefits of triangulating qualitative and quantitative data in an evaluation, there are some question this paper is going to answer:

- What is Qualitative and Quantitative Research Methods?
- Are there Differences between quantitative and qualitative research
- What are the advantages and disadvantages of both approaches?
- How do we know which method is right for research study? Who decide?

In the meantime the study aims to:

- * Introduce the principal methods of data collection used by social scientists, especially in political studies.
- * provide a critical understanding of how each methodology might be used, both separately and in combination with other methods;
- * Provide opportunities for researchers to reflect on and refine their own research practice.

Background:

It is important to recognize that systematic observation and testing can be accomplished using a wide variety of methods. Many people think of scientific inquiry strictly in terms of laboratory experimentation. However, it is neither possible nor desirable to study all phenomena of interest under controlled laboratory conditions.

The design of any study begins with the selection of a topic and a research methodology.

These initial decisions reflect assumptions about the social world, how science should be conducted, and what constitutes legitimate problems, solutions, and criteria of "proof" Different approaches to research encompass both theory and method. Two general approaches are widely recognized: quantitative research and qualitative research.

The selection of which research approach is appropriate in a given study should be based upon the problem of interest, resources available, the skills and training of the researcher, and the audience for the research. Although some research may incorporate both quantitative and qualitative methodologies, in their 'pure' form there are significant differences in the assumptions underlying these approaches, as well as in the data collection and analysis procedures used.

In one form or another, the argument about quantitative and qualitative research has been taking place since at least the mid-nineteenth century. At that time there was much debate about the scientific status of history and the social sciences, with quantification often being seen as one of the key features of the natural sciences. (Hammersley, 1992).

Similarly, in US sociology in the 1920s and 1930s there was dispute between advocates of the case study and statistical methods. Many of the claims made about quantitative and qualitative methods, today have their origins in these earlier debates (Hammersey, 1992). By the 1940s and 1950s in sociology, psychology and some other fields, quantitative methods (in the form of survey and experimental research) had become the dominant approach. But since the 1960s there has been revival in the qualitative types of research in these disciplines to the point where validity is widely accepted (Brayman, 1988), and that has increased the interest in a combination of or even the integration of quantitative and qualitative methods.

Qualitative and quantitative paradigms:

Most methodological commentaries seem to agree that two distinct paradigms can be said to exist (Brannen, 1992).

Quantitative work by definition implies the application of a measurement or numerical approach to the nature of issues under exploration, as well as to gathering and analysis of data. The methodologies adopted are likely to include extensive survey, which can consider broad issues incorporating a range of factors on group outcomes. Qualitative investigation, in contrast is often viewed as an intensive or micro-perspective which depends on case studies or evidence gathered from individual or particular situations. Qualitative approaches also can explore the processes behind observed associations between factors, chart individual outcomes and explore the meaning and contexts of individuals' behaviour. (Bullock.R, litte, MandMillham.S, 1992).

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Each approach is associated with certain groups of methods of data collection: quantitative research is strongly associated with social survey techniques like structured interviews and self-administered questionnaires, experiments, structured observation, content analysis and the analysis of official statistics. Qualitative research is typically associated with participant observation, and unstructured interviewing, focus groups, the qualitative examination of text, and various language-based techniques like conversation and discourse analysis (Bryman, 1992).

Combining qualitative and quantitative approaches:

Mixing of quantitative and a qualitative approaches has its critics indeed, Platt (1988) has described it as an “old tradition“ and others have referred disparagingly to an over-reliance on “cross-tab and case study” approaches. Critics despair at what seems to them to be opportunist eclecticism in which unstructured interview material dominates survey data or vice versa (Bullock.R, litte, MandMillham.S, 1992). In Brymans view: “qualitative and quantitative research are different, otherwise there would be no point in even discussing the possibility of combining them”. (1992, p.75), whereas, Bullock.R, litte, Mand Millham.S, (1992) emphasized that eclectic means approaches only fall short when eclectic means ad hoc, selected for their convenience rather than theoretical relevance. If eclectic means a combination of the best features of different approaches, as and when appropriate that will strengthen the research methodology and will be complemented and hopefully, illuminated by others. However, Hamersley commented on this debate by saying that: ”It seems to me that in some respects détentes is worse than cold war...there is the danger, that we should be tackling”. (1992, p. 39).

Others may propose that quantitative and qualitative methods are fundamentally different, that they can't be integrated, the nature of the evidence produced and the thought processes, whether convergent or divergent, guiding their analysis can't be reconciled. (Bullock.R, litte, MandMillham.S, 1992).

Thus quantitative and qualitative differ not only in the methods employed but also in the perception of the problem and the type of data they produce, (Bullock.R, litte, M.and Millham.S, 1992).

According to Brannen, (1992), there are three main differences between the two paradigms. The first is the way in which each tradition treats data. In theory, if not in practice, the quantitative researcher separates and defines variables and variable categories. These variables are linked together to frame hypotheses often before the data are collected, and are then tested upon the data. In contrast, the qualitative researcher begins with defining

very general concepts, which, as the research progresses, change their definition. The qualitative researcher is said to look through a wide lens searching for a pattern of inter- relationships between previously unspecified set of concepts, while the quantitative researcher looks through a narrow lens at a specified set of variables.

A second important difference is on data collection. In the qualitative tradition researchers must use themselves as the instrument, attending to their own cultural assumptions as well as to the data, In seeking to achieve imaginative insights into the respondents social worlds, the investigator is expected to be flexible and reflexive.

The results may vary greatly depending upon who conducts the research. (Weinreich.N, 1999). The consequence of this approach is that the method of qualitative research par excellence is participant observation. In the quantitative tradition the instrument is a pre-determined and finely tuned technological tool, which allows for much less flexibility, imaginative input and reflexivity. The qualitative and quantitative process research can be conducted together to collect and react to data. (Weinreich.N, 1999).

A third difference concerns the question of extrapolation and generalisation. Quantitative research is typically associated with the process of enumerative induction, one of its main purposes is to discover how many and what kind of people in a general or parent population have a particular characteristic which has been found to exist in the sample population. The aim is to infer a characteristic or relationship between variables to a parent population. With qualitative research it is the concepts and categories, not their incidence and frequency, that are said to matter. (Brannen, 1992). "In other words qualitative work does not survey the terrain it mines it". (McCracken, 1988, p.17). Moreover, qualitative work tends to be theoretical in its aims rather than descriptive, this is especially so with case studies that use qualitative methods, it is the testing of theory that is important rather than the issue of inference of generalizability (Yin, 1989, Platt, 1988).

Triangulation:

In order to deciding which methodology is right for research study, We shouldn't fall into the trap which many beginning (and experienced) researchers do in thinking that quantitative research is 'better ' than qualitative research. Neither is better than the other – they are just different and both have their strengths and weaknesses.

All research methods have their advantages and their limitations, Hence it is common to combine several methods in a single piece of research, using each to supplement and check on the others (Giddens, 1996), but Shipman (1989) would suggest that utilising one research method is

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insufficient. Particularly as the most vulnerable inquiry is where the assignee investigator is utilising a single research method. Moreover, Yin (1989) would assert that uncovering the 'how' and 'why' of organisational performance commands the use of the case study approach, which involves mixing a number of research strategies. Burgess chooses the term "multiple research strategies" to describe the use of diverse methods in tackling a research problem. According to this view, field methods that do not encompass observation in format interviewing and sampling are seen as narrow and unfit. The debate is that researchers ought to be flexible and therefore ought to select a range of methods. (Burgess, 1984). This process is known as "triangulation", (Giddens, 1996), which was originally borrowed from psychological reports, (Denzin, 1970), or has been borrowed from the field of navigation and surveying where a minimum of three reference points are used to define the location of an object (Gill and Johnson, 1993).

Denzin developed the term triangulation. For Denzin "triangulation" does not only involve methods and data but investigators and theories as well (Denzin, 1970,p.310). Many of the researchers have taken the term to mean more than one method of investigation, and more than one type of data (Bryman, 1988). More specifically, triangulation is the use of two or more research sources, methods, investigators or theories to examine the same problem (Robson, 1996).

Drawing on Denzine, (1978) I shall display different types of triangulation:

- Multiple methods: Methods triangulation may be between methods, which mean using different methods in relation to the same object of study (Patton, 1987), whereas the within-method approach involves the same methods being used on different occasions.
- Multiple data: different data may be collected by application of different methods at different times with different sources (Smith, 1993). Data may collect at different points in time and a diversity of contexts, situations and setting. Further more, data may relate to different levels of social analysis, the individual level or the interactive collective level (Brannen, 1995).
- Multiple theories: Initial data analysis, together with insights from the research process itself, may generate a number of possible theories and hypotheses about the research problem (Brannen, 1995).
- Multiple investigators: Here research is produced by partnership or teams, and different mixes of individuals bring different prespectives to research, depending upon the disciplines they belong to, their theoretical and practical angles views, age, gender and social background. Even if

each researcher uses the same method they should bring different viewpoints, which may influence the research.

But whilst these models are useful in that they lead us to rethink our methods and to reconsider our use of quantitative and qualitative approaches, they can also be misleading. So we need to be careful when choosing appropriate methods (Bullock, R., Little, M. and Millham, S., 1992).

In his study of qualitative and quantitative methods, Bryman (1992) mentioned different ways in which both methods have been combined.

- Logic of triangulation: The findings from one method might be validated against the findings from the other.
- Qualitative research facilitates quantitative research: Qualitative study can be used as a source of hypotheses and measurement scale.
- Quantitative research facilitates qualitative research: Quantitative study helps in focusing the qualitative study.
- Quantitative and qualitative research are combined in order to produce a general image: Quantitative research may be used to close the gaps in a qualitative study.

Structure and process: While quantitative study provides strength in structuring features in social life, qualitative research is stronger in describing the processes involved.

- Researchers and subject perspectives: Quantitative study is researcher-driven while qualitative research is subject-driven.
- Problem of generality: The findings of qualitative study decrease the degree of generalisation that is often obtained statistically with quantitative data.
- Qualitative research may facilitate the interpretation of relationships between variables. Quantitative research readily allows the researcher to establish relationships among variables. A qualitative study can be used to help explain the factors underlying the broad relationships that are established.
- The relationship between “macro” and “micro” levels. Quantitative research can often tap large-scale, structural features of social life, while qualitative research tends to address small-scale, behavioural aspects.
- Stage in the research process: Quantitative and qualitative research may be appropriate to different stages in a longitudinal study.
- Hybrids: when qualitative research is conducted within a quasi-experimental (i.e. quantitative) research design.

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Advantages of triangulation:

By making an analogy that as the triangle is the strongest of all the geometric shapes, the triangulation approach to evaluation increases the strength and accuracy of any research study (Patton, 1987). In view of the fact that there are many limitation of each of the research methods, (Giddens, 1993). Robson, (1996) asserts that triangulation means multiple methods which can enhance interpretability of data, in that the findings from a primarily quantitative study can be better understood when complemented by a qualitative narrative account, and a qualitative account can be enhanced and supported by quantitative evidence. Furthermore, explaining one source of information against other sources (Jankowicz, 1991), not only enhances the value of the information but also the quality of the finding itself.

One type of studying can thus be checked against the findings deriving from another type, For example, the result of a qualitative investigation, might be checked against a quantitative study. The aim is generally to enhance the validity of findings (Bryman, 1988), and quantitative finding can be illustrated by qualitative case studies or using qualitative results to explain the finding of quantitative research (Bullock.R, litte, MandMillham.S, 1992). We can also use qualitative evidence to produce hypotheses which can be tested quantitatively.

Jankowicz (1991) observed the weakness of some data sources which may cured by using triangulation to obtain the “content validity “(Frankfor-Nachmis and Nachmias, 1996). Similarly, Sapsford and Jupp, (1996) recognise that comparing data from observations, with subsequent participant interviews, can lead to “respondent validation”, for example, the thought, motives and perceptions of the participant enable the researcher to place behaviour in a social context, which may not have been the case. Hence triangulation is felt to increase the validity and reliability of any research finding (Gill and Johnson, 1991).

This validity and reliability in turn lead to consistency whether in data collection and methods or hypothesis and theories.

A further significant advantage of triangulation is that combining research methods makes it possible to design the study according to the purposes and circumstances of the research problem rather than any requirements of the quantitative and qualitative considerations.

Disadvantages of triangulation:

Triangulation is a vehicle not an aim. In this context “the qualitative studies are often appended on to qualitative research in a cosmetic or unnecessary way” (Bullock.R, Little.Mand Millha.S, 1992, P. 88), but there are authors who support triangulation but omit to mention any of its

difficulties, or to show how a balance between them can be achieved. (Bullock.R, litte, MandMillham.S, 1992). Silverman (1989) warns that researcher bias may result in one of the accounts being used to undercut another. Hall and Hall, (1996) addressed this issue by suggesting that choices should not be made between the methodologies, or indeed the reliability of the information, rather an understanding of the reasons behind the difficulties between accounts, whereas Easterby-Smith, (1993), advises researchers to use different methods from within the same paradigm whenever possible, and proceed with care when moving across paradigms. More over there is another difficulties with using triangulation in that it is time consuming and labour intensive (Weinreich, 1999), There may be circumstances where journals may not accept some methods used in triangulation, and some methods may not be accepted by researchers, (Gill and Johnson, 1991).

Discussion:

From the previous presentation, it appears that the importance of combining methods for treating the same subject has advantages which serve research purposes, frequently giving a higher level of reliability and authenticity, bearing in mind that "Triangulation" is not an aim in itself but a mean to attain a certain goal.

In relation to the a research topic about the Israeli/Arab conflict in Palestine from a political viewpoint, research methods will involve evidence gathered from documents, archives, life histories, diaries, oral history, and other material.

This issue is considered a strategic issue to the parties in conflict, especially the Israeli side and this is reflected in the lack of available information. Therefore other methods may be used to compensate for any shortages or discrepancies.

Personal knowledge, and experience of the region will be both valuable and relevant, but statistical methods will also be used to monitor the demographic variances and the changes of the land acquisition, transfer and ownership and its varying uses.

The researcher can use analytic methods also to account for, occupation policies and other Israeli activities, and this qualitative data will serve in the final evaluation.

Analytical methods can also be used to analyse the data: (Documents, Life histories, diaries, oral history) and other statistics and reports to understand the research problems.

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The researcher also can use comparative methods to compare both theory and practice, to compare between Israeli and Palestinian attitudes to the conflict issues and the changing attitudes of international actors.

To compensate for shortage of data, the researcher may utilise questionnaires to study the effects of the Israeli policies on Palestinian life; these are more acceptable than interviews in a tense security environment. Since the research topic is a difficult one in many respects and a variety of research methods will be needed in order to provide robust findings.

Conclusion:

Distinguishing between quantitative and qualitative research approaches at this research has led us further to identify the various contributions we can expect from each to the final research product. Quantitative approaches can provide authoritative survey data and relate diverse factors. They can also assess the incidence, epidemiology and boundaries of problems of the situations under scrutiny. Within such an approach it is possible to compare areas of the country and sub-groups or sets of factors can be selected for further consideration. Such work contributes to policy developments at an administrative level, such as in the framing of legislation, the planning of services or monitoring the implementation of change.

Qualitative approaches, in contrast, lead to a much greater understanding of the meaning and context of behaviours and the processes that take place within observed patterns of interrelated factors. They also reveal the different perception, which participants have of the same situation and allow researchers to consider personal histories and developmental factors, and when we combine between the best methods of different approaches as and when appropriate that will be complemented and hopefully, illuminated and strengthened by others.

We can better understand the role of quantitative and qualitative approaches by improving the definitions of the terms we use, by providing clearer descriptions of the research design in research reports and by conducting investigations that are guided by clear theoretical principles. In this context, many researchers have allowed their work to be dominated by one stance without fully understanding of harnessing the benefits of the other.

Whilst these models are useful in that, they lead us to rethink our methods and to reconsider our use of triangulation; they can also be misleading so we need to take care when choosing appropriate methods.

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