

Rigour in Qualitative Research: Is there a Panacea to it?

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ABSTRACT

Despite the reported limitations of the qualitative research in comparison to other methodologies, we contend that the common criticisms against it are too often using criteria explicitly analogous to quantitative reasoning. We critically analysed the reported limitations of qualitative research in the literature to deconstruct the conflicting discourses that enable an understanding of their subjectivity. Also, we provide a philosophical justification that both qualitative and quantitative methodologies are appropriate for studying a different form of reality. Lincoln and Guba's four principles for determining the quality of qualitative research rigour along with confirmability, transferability, credibility and dependability are deemed appropriate rather than the commonly employed internal and external validity, reliability and objectivity. Finally, we argued that a widespread use of a different standard for judging the quality of qualitative research consequential to its philosophical stance is the panacea for the unfair criticisms in the future.

Key words: *Criticism, Methodology, Qualitative, Research.*

INTRODUCTION

Qualitative research is increasingly recognised as second to none for exploration of human elements in a given subject, with a long history dating back to the 17th century (Given, 2008). Despite this acknowledgement, how rigour can be ensured or enhanced in the qualitative research raised more methodological questions than answers (Barbour, 2001; Cutcliffe & McKenna, 1999; Hoddinott & Pill, 1997). While quantitative research refers, in part, to a commitment to the knowledge with a certainty and relies on numerical rather than narrative data to test particular intervention (Trochim, Donnelly, & Arora, 2015), it is not, however, equipped with the requisite tools to explain why and how certain behaviour occurs. Thus, the second half of the 20th century witnessed a growing criticism directed towards positivism, which until then has been the dominant paradigm in social research. Consequently, quantitative research, which is mostly regarded as the contrast of the qualitative category of research is the focus of this paper.

The argument in favour of quantitative research against qualitative or vice versa is inconsequential and a bit misleading. This is partly because, qualitative research cannot totally avoid quantification, for example, through the use of the term *sometimes, often, seldom or never*, while qualitative research is simply making an imprecise form of quantification or through the use of descriptive statistics to report the result of their questionnaires (Trochim et al., 2015). Equally, quantitative researchers are simply translating gradation of quality into a numerical scale that is agreeable to statistical analysis (Trochim et al., 2015). Thus, the dichotomy between qualitative and quantitative data is not easily discernible. However, their philosophical distinctiveness is self-evident. Moreover, the superiority of quantitative research does not enjoy literature support (Creswell, 2009; Hartley & Muhit, 2003; Rogers, Popay, Williams, & Latham, 1997). With this in mind, qualitative research is unfairly criticised as

anecdotal, small-scaled and lacking rigour (Trochim et al., 2015). Contrariwise, Cavanagh (1997) recommends the use of the same incongruous criteria and terminology reflecting quantitative framework to achieve rigour in qualitative research. Jasper (1994) and Appleton (1995) built on similar arguments and indicated the need for qualitative researchers to achieve rigour using the positivist established parameters to avoid criticism (Cutcliffe & McKenna, 1999).

In considering these arguments, it is, overly simplistic- indeed imprecise- to use a framework analogous to quantitative rigour for assessing the soundness of qualitative inquiry. Rigour in quantitative research is the quality of the research process and has a bearing on getting the “truth”. Thus, some qualitative researchers throw away the idea of validity and generalizability characterising quantitative reasoning and argued for a different standard that will reflect the ontological and epistemological assumptions fundamental to qualitative paradigms. Cognizant of this suggestion, the “qualitative research process can be rigorous without being held accountable to inappropriate quantitative validity benchmarks” (Given, 2008, p.909).

At this juncture, what novice researchers and experienced scholars require is not winning the argument in support of the research quality. Rather, it should be more for the understanding of whether or not the criticism directed on a qualitative rigour is justified in the light of qualitative paradigms. This would then bring us to the most intractable problem, the panacea and the way out for qualitative research.

Choosing the Appropriate Research Methodology

Volumes of text and ink have been expanded to produce the burgeoning literature on research methodology. The overarching theme therein represents strength and advantages of the two traditions. Where the qualitative and quantitative traditions are compared, criticisms and conflicts resonate around the perceived value of the methodologies rather than their contextual relevance and applicability. Consequently, the most qualitative-quantitative dispute is without logical basis (Given, 2008). The point is that each of the methodologies is suitable for studying a different form of reality that the other is incapable of as effectively (Kelle & Erzberger, 2000; Sarantakos, 2005). Thus, choosing an appropriate research methodology or the “how of research?” is secondary to the philosophical answer to the question “why research?” In other words, philosophy is delineated by core assumptions concerning the major philosophical approaches namely ontology, epistemology and axiology (Figure 1).

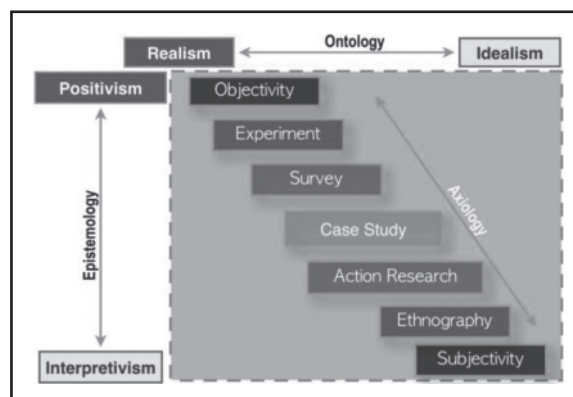


Figure 1. Dimension of Research Philosophy Adapted from (Sexton, 2003, p.22; Siti-Uzairiah, 2014, p.19)

The ontology (the nature of reality) and the epistemology (the nature of knowledge) influence methodology (Sexton, 2003; Siti-Uzairiah, 2014), which in turn guides the choice of research design and instruments (Sarantakos, 2005).

Context for Qualitative Research

Qualitative research concerns itself with getting information about how people interpret their experience of the world in which they live in at that particular time. Thus, its focus is neither on objective reality nor objective truth. While the existence of the objective reality is not denied, its meaning is constructed. Constructing reality means attaching meaning based on individual understanding and interpretation. Table 1 presents the most common criticisms directed at qualitative research and is circumscribed around the issues itemised by Sarantakos (2005).

Table 1. Most common criticisms directed at qualitative research

S/No.	Issue	Critique of qualitative research
1.	Efficacy	Qualitative research often is criticised as falling short in studying relationships between variables with the degree of accuracy required to establish a trend.
2.	Representativeness	Qualitative research is not based on large samples, and therefore, does not give a representative result.
3.	Generalizability	Qualitative research is not representative. Thus, its findings cannot be generalised.
4.	Objectivity	Qualitative research does not ensure objectivity, and therefore, has questionable findings.
5.	Validity and Reliability	Qualitative research does not guarantee the validity and reliability of methods.
6.	Interpretations	Qualitative research is not meant to give “true meaning”, and the interpretation of the respondent cannot be guaranteed.
7.	Comparability	Qualitative research is not having data that can be used in the comparative situation.
8.	Replicability	Qualitative research is not replicable owing to its individualistic and subjectivist nature.
9.	Ethics	Qualitative research is not free of ethical issues because of the need to maintain close contact with respondents.
10.	Quality of data	Qualitative research does not have a linear data collection process, and often there is a significant amount of useless information in the data.
11.	Anything goes	Qualitative research is not free from high level of subjectivity and relativism, which gives the impression that “anything goes”.
12.	Time and cost	Qualitative research is not relatively time and cost efficient.

Source: Pfeifer (2000) and Benini (2000) in Sarantakos (2005), p.45-46

Response to Qualitative Research Criticism

Many of the qualitative criticisms reflect legitimate impressions based on different assumptions about the reality of the world and how knowledge is viewed. It is akin to “regarding that a ship as ineffective because it cannot fly, or aeroplanes are inferior because they cannot cruise through the sea” (Sarantakos, 2005). The reality is that both possess unique qualities that make them in comparison advantageous. For example, studying things in their natural settings based on the participant’s point of view is described in the scholastic term as a qualitative research. It explores the human element of a given topic and examines why and how individuals view and experience the world around them. Thus, the efficacy of qualitative research is not meant to predict an outcome nor meant to analyse relationships between variables with the amount of accuracy needed to entrench a trend.

It is precisely here that one may view Given’s (2008) statement as relevant where qualitative research is “being held answerable to inordinate quantitative validity benchmarks” for not having large samples, and, therefore, not having the ability to give a representative result. This made the qualitative research more prone to criticism, as results of study are “biased, limited in scope, anecdotal, with no capacity to enable generalisation and lacking rigour” (Trochim et al., 2015). Campbell (1975), however, has a different opinion. He sees that when it is done properly, it becomes in-depth, valid, reliable, credible, and rigorous.

The fact that random sampling is not consistent with qualitative intent made it liable to criticism, as incompetent for a statistical generalisation. The point, however, is that generalisation is not the ultimate promise of the qualitative research. Rather systematic or snowball sampling is a better option, because, rich data are required to give the fullest meaning of possible views consistent with participant’s peculiarities. Thus, qualitative research is intensive rather than extensive.

Additionally, “qualitative research is less about getting at the “truth” than it is about getting a deeper understanding and useful results” (Trochim et al., 2015). Thus, objectivity is less of its concern in this regard. In support of that, Trochim et al. (2015) has it that each research participant uses a contrasting reality because they view it from distinct context and through diverse experiences. This does not, however, mean it is less rigorous, reliable, or credible, it only needs a different approach (Campbell, 1975; Sarantakos, 2005; Trochim et al., 2015).

Similarly, criticism of qualitative research based on validity and reliability is inappropriate. Validity and reliability in a quantitative sense are meant to enable predictive inferences (validity) to be verified through repetitive measures that guarantee consistency (reliability) as discussed. Qualitative research, however, is acknowledged to be pertinent when limited or nothing is known about an issue. What is required is whether the result is believable from the participant’s point of view (credibility), assignable to other setting and context (transferability), and the researcher’s account of ever-changing research context (dependability). Likewise, interpretation is not a weakness in qualitative research. Since different people have different understanding and interpretation of things, there is a number of different approaches of making sense of any given situation. Accordingly, qualitative research is relative and subjective. It invariably embraces the view that there is no single truth.

Data comparability is often regarded as a strong point that the qualitative research is lacking. In a qualitative sense, continuous reflection is required through focus modification to accommodate iteratively the changing data collection process. Therefore, qualitative research is not focusing on generating data that can be used in a comparative situation. Accordingly, comparability can be of less significance, and therefore, should not be used to critique

qualitative rigour. Additionally, the assertion that qualitative research is not repeatable owing to its individualistic and subjectivist nature is not a weakness. Uniqueness rather than replicability is a strong point reinforcing the value and appropriateness of the qualitative intent because in most cases, little or nothing is known about the issues under investigation. Often, emphasised is the limitation of qualitative research being laden with ethical issues. From the qualitative vantage point, however, the ethical issue is not a demerit, because we are dealing with the study of people that are independent and autonomous and, therefore, need to be respected through assent and informed consent.

In addition, the qualitative research should not be criticized for not having a linear data collection process. The data collection process is not linear because it is unpredictable and deductive rather than inductive. Nonetheless, it provides the opportunity to be flexible and iterative while collecting and analysing data. The fact that frequently, there is redundant and useless information in a qualitative study, also makes it prone to criticism by the research community. What others may regard as redundant and useless information however, may be an opening for a new further research. Besides, sampling redundancy and theoretical saturation reinforces the veracity and sufficiency of maintaining a few samples rather than a large number of participants in the in-depth, intensive qualitative research.

Tension enshrined in the assertion “anything goes” in the qualitative research underscores the primary objective of the qualitative research. Qualitative research like all social researches (quanti or quali) is at some level interpretative, influenced by the craving to understand and hence interpret (Given, 2008). It is less about “facts exploration” than it is about “meaning making” or rather “sense-making”. Consistent with the quantitative intent, qualitative research is criticised as costly and time-consuming. Certainly, qualitative research is an extensive and complex area, which involves a deductive approach that focuses on asking open questions involving virtually any information in a non-numerical format to provide a rich description with multiple realities in an iterative manner (Given, 2008; Trochim et al., 2015). These may translate into additional cost and time.

Rigour in Qualitative Research

The criticisms presented in the above onset represent the criteria commonly used for determining the strength of qualitative research. However, they are decidedly analogous to those assumptions involved in the quantitative traditions as discussed. Trustworthy qualitative research is a study whose findings are “worth paying attention to, worth taking account of” (Lincoln & Guba, 1985, p. 290). Expanding further, Lincoln and Guba (1985) recommended four criteria for determining the efficacy of qualitative research, which is mirroring the underlying postulations involved in qualitative research as listed in Table 2.

Table 2. Lincoln & Guba’s criteria for judging the quality of qualitative research

Criteria for judging research quality from a more qualitative perspective	
Criteria for judging quantitative research	Alternative criteria for judging qualitative research
Internal validity	Credibility
External validity	Transferability
Reliability	Dependability
Objectivity	Confirmability

Source: (Lincoln & Guba, 1985; Trochim et al., 2015)

Assessing Qualitative Research Rigour: Insight from Lincoln and Guba

Lincoln and Guba (1985) have challenged the notion of internal and external validity, reliability, and objectivity on the grounds that they do not meet trustworthiness criteria consistent with the intent of naturalistic inquiry. Thus, they argued that the concept of objectivity, reliability, internal validity and external validity should be exchanged with confirmability, transferability, credibility and dependability respectively. Evidence presented thus far in this study supports the idea that both quantitative and qualitative types of research are appropriate for studying a different form of reality.

Validity is typically understood as the most suitable explanation of the accurate of a given assumption, deduction or conclusion (Given, 2008). Internal validity concerns the extent to which a research design impacts on the research outcomes (Trochim et al., 2015). It is a technical way of ensuring that the instrument measures what it is designed to measure (Given, 2008; Sarantakos, 2005; Trochim et al., 2015) and that findings of the research have not been affected by instrument or procedure (Trochim et al., 2015). This means that a researcher must have established a plausible explanation that indeed a causal relationship exists between the independent variables and the intended outcome devoid of the external influence of the researcher. Conversely, establishing rigour in a qualitative research, which aims at ensuring that the instruments do not affect findings or procedure based on the criteria of internal validity is lending credence to the statement of Lincoln and Guba, (1982) that:

“blurring of the distinction between processes and product and this may allow attacks on naturalistic inquiry to proceed without requiring careful examination of whether in fact, the attacks are justified or reasonable” (Lincoln & Guba, 1982, p.4).

Meanwhile, qualitative research ensures that the results are representing the participant's experience from their perspective. This is what is meant by credibility in qualitative research. Since different people hold different views about their realities, the task as a qualitative researcher is to offer a rich description of the participant's standpoints - as honestly and as wholly as possible. Nonetheless, researchers often come to realize that they are the authors of such descriptions (Given, 2008).

Accordingly, their viewpoint is integrated into their interpretations. To ensure credibility, therefore, it is recommended that data collection should be intensive through prolonged engagement with participants and that ensuring triangulation of data from multiple sources and using different collection methods is vital. Sharing the research description and analysis with participants through participant's validation and a strategy called “member checking” is another procedure for strengthening the credibility of a quality rigour.

External validity is the degree to which a research conclusion would hold for different settings and time (Sarantakos, 2005; Trochim et al., 2015). Thus, the chances of getting generalizable facts are possible when there is a representative sample. To this end, every unit of the target population has an equal, predictable and non-zero probability of being incorporated in the sample through random selection (Trochim et al., 2015).

In the qualitative research, sampling procedure corresponds to the philosophy of the research. Thus, it is gradual and less structured. The choice of participants is guided by researcher's judgment as in the case of snowball sampling. This is cognisant of the fact that the researcher may be seeking specific kinds of people or groups. In essence, researchers are constrained to

use only the accessible population. Attending to the concerns raised by context-sensitive qualitative studies prompt the review of external validity criteria by Lincoln and Guba (1985). The fact is that generalizability is not the fundamental aim of qualitative research. Lincoln and Guba's (1985) "transferability criterion" refers to the degree in which the results can be re-assigned to other settings. Cross-case study analysis using replication logic is a case of transferability in qualitative research (Yin, 2009). To enhance transferability therefore, description of research context and the assumptions that lie at the core of the research is prevalent.

Reliability refers to the capacity of measurement to produce consistent results whenever it is repeated (Given, 2008; Sarantakos, 2005; Trochim et al., 2015). Thus, the instrument is supposed to be free of bias related to the investigator, the subject or the research conditions. Qualitative research however, gives little or no attention to such assumptions. Lincoln and Guba (1985) provides dependability yardstick as an alternative non-numerical criterion consistent with the qualitative research paradigms. Unlike reliability, which connotes replicability and repeatability in a quantitative tradition, based on the assumption that the same result will be obtained when the same thing is repeatedly measured, a qualitative inquiry subscribed to the belief that "you can never step into the same river twice, because it is flowing and therefore constantly changing" (Trochim et al., 2015). Thus, dependability is a more suitable option in the qualitative tradition, which requires the researcher to account for the description of the changing context and how that might affect interpretation.

Objectivity contributed to the empiricist doctrine that rests on the belief that facts and values should be sorted apart. Thus, research process ought to be free of personal bias through a reflection of the axiology of value neutrality. This would imply that objectivity put a restriction on the influence of personal bias and prejudice and advocates for a reality without manipulation. Insightfully, value-free axiology is tantamount to a "blurring of the distinction between processes and product and this may allow attacks on naturalistic inquiry" (Lincoln & Guba, 1982). As a consequence, Lincoln and Guba (1985) straight away rejected the notion of objectivity. Qualitative research rest within the parameters of interpretive epistemology and ontological reality gained from participant's personal understanding. Lincoln and Guba's (1982) logic behind this position is that objective reality is unattainable, unnecessary and undesirable. They further believed that what is attainable, necessary and desirable is confirmability.

It may be worthy to note that confirmability is premised on the assumption that each researcher has a unique experience and perspective. Thus, the degree to which the results corroborate or contradict prior observations of other researchers (triangulation) can enhance confirmability. Expanding further, in qualitative research, triangulation could be of several methods or sources (Norman & Yvonna, 2005). Beyond this, confirmability can be enhanced through the description of negative instances and data audit on data collection and analysis procedure.

Based on the foregoing, Lincoln and Guba's four criteria for establishing trustworthiness in research involving dependability, credibility, confirmability and transferability rather than the commonly employed internal and external validity, reliability and objectivity are fit for judging research from a more qualitative perspective.

CONCLUSION

Identification of a clear research objective is a prerequisite for any research. As a researcher makes a review of the philosophical literature consisting of the “why of research”, then the methodology or the “how of research” becomes apparent. Where qualitative research is required, the standard for judging the research quality should respect qualitative paradigms, and therefore, might include credibility, transferability, dependability, and confirmability as offered by Lincoln and Guba (1985). It should not just be validity, reliability (internal and external), generalizability and objectivity consequential to what (Given, 2008) termed the “inappropriate quantitative validity benchmarks”. Consistent with our recommendations, reflecting qualitative paradigm is the panacea for the unfair criticisms of qualitative research in the future.

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