

Qualitative Research Methodology and Numbers

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ABSTRACT While some scholars discredit the use of numbers in qualitative research methodology, others view it as a shallow understanding of qualitative research methodology. The aim of this article, through a literature review is to explore whether the use of numbers in qualitative research methodology is necessary or not. The findings indicate the following: the use of numbers does not matter, but what matters is how and where the numbers are used; numbers are necessary but it is essential to follow qualitative research methodology logic and not to be carried away with numbers and end up misrepresenting qualitative with quantitative research methodology. Numbers can be used in qualitative research methodology and misuse of them is not a qualitative methodological mismatch but a gap on the individual analytical approach. The paper recommends that though the use of numbers is necessary in qualitative research methodology, numbers should be used appropriately and not to be confused with the use of numbers in mixed and quantitative research methodology.

INTRODUCTION

Despite the important role of numbers in qualitative research methodology, quantifying qualitative research is surrounded by a great deal of controversy, with a number of scholarly treatises expressing considerable antagonism (Davison et al. 2016). In some journals, due to the controversies on the use of numbers that seems to be rampant within the qualitative research methodology, this still presents a research methodology quandary despite the proponents of qualitative researcher's efforts towards justification of the use of numbers in qualitative research methodology and despite the role that qualitative research methodology play in research (BJM 2016).

Maxwell (2010) pertinently comprehends the importance of numbers in qualitative research methodology. This author asks whether or not the issue of quantifying qualitative research methodology is a qualitative methodological mismatch or a gap on the individual analytical approach? It was therefore, noted that there is need for evaluating the role of numbers in qualitative research methodology. Before expagorating on the role of numbers in qualitative research methodology, there is need for understanding qualitative research methodology. What then is qualitative research methodology?

Qualitative research methodology believes in subjectivity and thus the way people view the world is not objective (Rubin and Babbie

2016). In fact, in qualitative research methodology, a researcher sees and analyses the social world from a point of view which may be different from other researcher's point of view (Hallberg 2013; Bertero 2015). Due to the subjectivity nature of qualitative research, some scholars argue that the use of numbers is inappropriate because it represents objectivity and goes against subjective nature of qualitative research methodology. Therefore, the use of numbers in qualitative research methodology evokes endless questions. Largely, the use of numbers on a research methodology which believes in subjectivity has been seen as a mismatch by many scholars (Roulston and Shelton 2015). However, this paper goes against the idea of linking the subjectivity nature of qualitative research with bias and the idea of crediting quantitative research because of the use of numbers.

This is so because objectivity does not mean special intelligence of the mind or inner state of fairness since quantitative researchers can lie with numbers. In the same line, Rubin and Babbie (2016) is of the view that differentiating quantitative and qualitative research based on objectivity and positivism does not hold water because if positivism is about being faithful to the phenomena qualitative researchers are the greatest positivists. Therefore, researchers should bear in mind that the use of numbers should not only be a matter of principle but a question of appropriateness in the research methodology used (Nick and Martin 2016). It is also worthy to

note that in qualitative research methodology, even if numbers are used, meaning is important and therefore, numbers should not replace description. In fact, they should supplement the gaps if any thereby improving clarity of the situation under study (Maxwell 2010: 480).

Problem Statement

The unresolved conflict on the debate surrounding the use of numbers in qualitative research methodology, and inadequate detailed research and clarity on the use of numbers in qualitative research methodology means that the agenda of the debate is still a burning issue. Thus, the research that does exist on the use of numbers in qualitative research methodology is contradictory owing to the openness to debates as the discussion will show. This paper therefore, seeks to address such inconsistencies and challenge the opponents of qualitative research methodology by critically examining from qualitative researcher's point of view, the problematic nature of the existing information in understating the role of numbers in qualitative research.

RESEARCH METHODOLOGY

This paper has used document analysis. Document analysis involves the use of facts or information which is already there and may have been used for other purposes (Chivanga and Kangethe 2015; Rubin and Babbie 2016). Existing documents were used as a starting point to in depth understanding of variables under study which helped the researcher in coming up with some new conclusions. Text books, education websites, internet sources, journals and reports have been used to explore whether the use of numbers is necessary or not in qualitative research methodology.

OBSERVATIONS AND DISCUSSION

Reasons behind the Use of Numbers in Qualitative Research Methodology

Numbers Improve Transparency

Although there are a lot of mixed views on the use of numbers in qualitative research methodology, numbers are necessary and they have

always been indirectly used in qualitative research (Schwandt 2007: 251). For instance, qualitative researchers use words such as "many" and "some". Though expressed verbally, these words are a sign of quantification in qualitative research methodology. In such cases, use of numbers will be more transparent and add more meaning to the research rather than the use of quantifying words (Maxwell 2010). However, researchers should follow the qualitative research methodology procedure and not confuse it with quantitative research methodology (Dey 1993). This is so because qualitative research is not all about quantifying or finding how many but it is also grounded in coming up with meaningful narratives, concepts and themes that will lead to the in depth understanding of the subject under study (Ward 2007).

Numbers Increase Meaning to the Key Findings

The use of numbers in qualitative research methodology allows clearer understanding thereby increasing meaning to the findings. For example, quantifying a sample will result in more clarity rather than basing it on the issue of saturation without clearly mentioning the sample size and the key demographics. Although, the use of numbers have got advantages, qualitative researchers should bear in mind that concentrating much on numbers and using them inappropriately, may lead to inappropriate findings (Ritchie and Lewis 2003).

Numbers Overcome the Limitation of a Small Sample Size

Indubitably, large numbers may be used as a way of overcoming the constraint of a small sample size phenomenon in qualitative research methodology. For example, interviewing ten people may result in two hundred pages of data. Thus in qualitative research the small sample size does not matter because large number of pages can be derived from a small sample. This will therefore overcome the constraint of small sample size in qualitative research. In other words, numbers can act as a step to enrich the meaning of data obtained from a small sample size in qualitative research (Maxwell 2010: 231).

Qualitative Research Methodology Borrows from Quantitative Research Methodology

Importantly, numbers are necessary in qualitative research because qualitative research methodology was derived from quantitative research methodology therefore, it borrows some of the features such as the use of numbers from quantitative research (Keating and Porta 2009). In the same vein, Hyette (2014) is of the view that numbers are necessary in qualitative research methodology because meaning depends on numbers as also the use of numbers depends on meaning. Thus, qualitative methodology is an encompassing phenomenon and therefore, borrowing from qualitative and quantitative research methodology happens however, what is of great essence is to count the countable and avoid counting the uncountable aspects of the phenomena being researched. This is so because there are some situations where the use of numbers will not bring more meaning to qualitative research methodology.

Numbers Can be Used for Clarity on Demographics

Indubitably, numbers are central and necessary in qualitative research methodology. Although, the using numbers in qualitative research methodology has a lot of criticisms, the use of numbers performs a sterling role of clarifying demographics (Maxwell 2010: 476). Deriving from the above, it is of great importance to note that, the difference between quantitative and qualitative research methodology is more than differentiating them on the basis of words and numbers (Hammersley 1992; Huston 2005; Sandelowski et al. 2009).

Numbers are Used in Qualitative Software

Undeniably, numbers can be used in diverse phenomena of qualitative research. In some situations, numbers are necessary in qualitative research. For example, they can be used in qualitative software such as CAQDAS and NVIVO. It is critical to note however that, the misuse of numbers is not a qualitative methodological mismatch but a gap on the individual analytical approach. Although numbers can be used in qualitative research methodology of pivotal importance perhaps is to follow qualitative syllogism

logic and not to be carried away by numbers and end up misrepresenting qualitative with quantitative research methodology (Schonfelder 2011).

Numbers are Used During Data Coding

Importantly also, qualitative researchers use numbers during pattern recognition, coding and identification of themes in data. For example, themes emerge after numbering a phenomena and identifying presence and absence of themes. Though indirectly, to some extent data coding includes numbering (Sandelowski 2001). By so doing, the use of numbers in coding allows incorporation of various viewpoints and thereby improving the understanding of the data (Ward 2007).

CONCLUSION

Using numbers in qualitative research methodology is not an issue but what matters most is to use numbers appropriately. Numbers can be used on demographics and on sample size but it will be inappropriate to dwell much on numbers when analysing data on a sample which was using qualitative research procedures instead of quantitative research procedures. Although numbers can be used in qualitative research methodology, they should not replace description. In fact, they should supplement the gaps if any thereby improving clarity of the subject under study.

RECOMMENDATIONS

Sampling Procedure

There is need for considering the sampling procedure. For instance, quantifying data on a sample which was done without dwelling much on statistical standards is problematic because it may lead to inappropriate generalisations. This is inappropriate because generalising data which was meant for in depth understanding of a small area to the whole population does not provide pure empirical basis. A representative sample which follows statistical procedures can be more appropriate for making generalisations to the whole population whereas for a sample which did not follow statistical procedures it is more appropriate to make generalisations based on

qualitative data and theoretical propositions rather than making generalisations on the whole population. To put it differently, although numbers are necessary in qualitative research methodology, researchers should bear in mind that meaningful argument is not only based on numbers but also on theory and qualitative data.

Meaning

Qualitative researchers should bear in mind that, qualitative research methodology is based on meaning. Therefore during data analysis, quantifying only without deriving meaning and interpretive analysis is inadequate in qualitative research methodology. For instance, generalising conclusions basing on a sample which was concentrating on a particular type of participants while ignoring others will result in a sample which is not representative. Importantly, the use of numbers in such cases will help the challenge of making conclusions based on a sample which is not representative.

Research Methodology Used

Importantly, the use of numbers in mixed methods should not be confused with the use of numbers in qualitative research methodology. In some cases when using numbers in qualitative research some researchers may end up reporting about numbers only without giving more details of the variables under study. Some numbers may not add value to the research. It should not be only a matter of using numbers even to the uncountable and numbers should not be used in cases where they do not enhance the meaning. Therefore, though numbers can be used in qualitative research methodology they should be used in a way which does not mix with qualitative and quantitative methodological standards.

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