

AN ANALYSIS OF QUALITY CRITERIA FOR QUALITATIVE RESEARCH

Dr Roslyn Cameron

Central Queensland University, Gladstone, Australia

r.cameron@cqu.edu.au

TRACK: Research Methods

25th ANZAM Conference

Wellington, New Zealand 7-9 December 2011

AN ANALYSIS OF QUALITY CRITERIA FOR QUALITATIVE RESEARCH

ABSTRACT

There is general consensus as to what constitutes quality and rigor in quantitative research however the issue of quality and rigor in qualitative research is contentious. The purpose of this paper is to provide a brief overview of research quality criteria in quantitative research before presenting an analysis of quality frameworks for qualitative research. The paper presents the three main stances taken in quality criteria for qualitative research as a means to exploring this complex issue. The paper not only argues for the need for qualitative management researchers to embed the chosen quality frameworks within the writing of the research but takes this one step further by arguing for explicit self reflexivity within the process and products of qualitative research.

Keywords: qualitative research; quality criteria; rigor; trustworthiness; postgraduate research training

A common question in academia and the ANZAM research community is: “What constitutes good research?” The concept of rigour is often referred to along with theoretical and methodological robustness when reference is made to making some form of evaluation or critique of research as process (act) and research as product (publication). Andrews and Halcomb (2009, p. xvi) define rigor as “The thoroughness, accuracy, confirmability and ethical soundness of all aspects of a study’s design”. It is of great interest to note an editorial in a recent issue of the *Academy of Management Journal* (2011, Volume 54, Number 2), titled: *From the Editors The coming of age for qualitative research: Embracing the diversity of qualitative methods*. The two Associate Editors, Pratima Bansal and Kevin Corley who wrote the piece conducted a review of the qualitative research published in the *Academy of Management (AMJ)* journal from 2001 to 2010. They “applaud the important strides made on the qualitative frontier, recognize some strong norms are emerging in the research being published, and encourage more diversity in the qualitative research appearing in the AMJ” (Bansal and Corley 2011, p. 233). The Editors go on to discuss aspects of rigor and the reporting of qualitative data and provide very interesting statistics on the qualitative research

being published in the AMJ for that period. For example six of the last eight papers awarded AMJs “Best Article Award” were based upon qualitative data.

This paper will discuss the commonly agreed criteria for judging quantitative research before presenting the three positions or stances taken in judging quality in qualitative research followed by the eight “Big-Tent” criteria developed by Tracy (2010). The paper will conclude with some insights into the implications this has for the research training and capacity building of qualitative business and management researchers.

QUALITY FRAMEWORKS IN QUANTITATIVE AND QUALITATIVE RESEARCH

This section of the paper will trace the quality criteria developed for quantitative research traditions before presenting the quality criteria utilised by qualitative research and the three main positions or stances in relation to quality criteria for judging the rigor of qualitative research.

Quality criteria in quantitative research

It would appear that a majority of the discussion on quality frameworks in quantitative research is implicit, rather than explicit and is often referred to in the products of research as part of the stages of the research process (e.g., sampling and measures). Most research methods textbooks will refer to the concepts of validity and reliability which are rooted in the positivist and quantitative traditions of “scientific method”. The commonly agreed to criteria for judging quantitative research is listed and defined in Table 1.

<INSERT TABLE 1 HERE>

Quality criteria in qualitative research: three stances

Bryman, Becker and Sempik (2008) in a study on the use of quality criteria across quantitative, qualitative and mixed methods research in social policy research in the UK, noted that there is an absence of consensual agreement between qualitative researchers as to what criteria can be used to assess qualitative research. They stated, “...the rise of qualitative research over the last 25-30 years represents one of the reasons for the growing interest in research quality criteria because it is widely assumed that whereas quality criteria for quantitative research are well known and widely agreed, that is not the case for qualitative research” (2008, p. 262).

Rolfe (2006) estimates there are three broad stances in the literature that reports on the quality of qualitative research:

- (1) qualitative research (QUAL) should be judged according to the same criteria as quantitative research (QUANT);
- (2) qualitative research (QUAL) should be judged using its own criteria (Lincoln and Guba 1985); and
- (3) the appropriateness of any predetermined criteria for judging qualitative criteria (QUAL) is questioned (Rolfe, 2006; Sandelowski & Barroso, 2002).

Some types of qualitative research have developed their own quality criteria. For example, in reference to grounded theory, Charmaz (2006) proposes four quality criteria for judging

grounded theory. The paper will now present the examples of positions taken in the three stances on quality criteria for qualitative research identified by Rolfe (2006).

Stance 1: QUAL research should be judged by QUANT criteria

Neuman (2006) goes to great lengths to describe and distinguish between how quantitative and qualitative research addresses validity and reliability. “Qualitative and quantitative researchers want reliable and valid measurement, but beyond an agreement on the basic ideas at a general level, each style sees reliability and validity in the research process differently” (Neuman 2006, p.189). In reference to qualitative research Neuman makes the following statement: “ Most qualitative researchers accept the basic principles of reliability and validity, but rarely use the terms because of their association with quantitative measurement. In addition, qualitative researchers apply the principles differently” (Neuman 2006, p. 194).

Johnson (1997) has developed a set of criteria for qualitative research which maintains the use of the term and concept of validity:

1. Descriptive validity: *factual accuracy of the account as reported by the qualitative researcher*
2. Interpretive validity: *the degree that the participants’ viewpoints, thoughts, intentions, and experiences are accurately understood and reported by the qualitative researcher*
3. Theoretical validity: *the degree that a theory or theoretical explanation developed from a research study fits the data and is, therefore, credible and defensible.*

Johnson (1997) goes on to provide thirteen strategies to promote QUAL research validity and these are listed below:

- Researcher as detective
- Extended fieldwork
- Low inference descriptors
- Triangulation (data, methods, investigator and theory triangulation)
- Participant feedback
- Peer review
- Negative case sampling
- Reflexivity
- Pattern matching.

Others argue against applying traditional QUANT criteria to QUAL research:

Scientific discipline or rigor is valued because it is associated with the worth of research outcomes and studies are critiqued as a means of judging rigor. Qualitative research methods have been criticized for lack of rigor. However, these criticisms have occurred because of attempts to judge the rigor of qualitative studies using rules developed to judge quantitative studies. Rigor needs to be defined differently for qualitative research since the desired outcome is different (Burns & Grove, 2005, p. 55).

This brings the discussion to the position taken in the second stance towards quality criteria in qualitative research.

Stance 2: QUAL research should use QUAL criteria

Generally speaking qualitative researchers tend to prefer the term trustworthiness as opposed to rigor. This term is derived from the "...researcher's presence, the nature of the interaction between researcher and participants, the triangulation of data, the interpretation of perceptions and rich, thick description..." (Merriam, 1988, p. 120). Andrews and Halcomb (2009, p. xvii) define trustworthiness as, "the degree of confidence that the researcher has that their qualitative data and findings are credible, transferable and dependable". Trustworthiness was a term proposed by Lincoln and Guba (1985) and is often referred to as a 'goodness of fit' criteria which parallels the term rigor in quantitative research. Lincoln and Guba (1985) devised a set of four criteria upon which to determine the trustworthiness of qualitative research: *credibility*; *transferability*; *dependability* and; *confirmability*.

Credibility (in preference to internal validity) is one of the most important factors in establishing trustworthiness and is about determining how congruent the findings are with reality. *Transferability* (in preference to external validity/generalisability) requires the researcher to provide sufficient data and context to enable the audience to judge whether the findings can be applied to other situations and contexts. *Dependability* (in preference to reliability) refers to having sufficient details and documentation of the methods employed so that the study can be scrutinised and replicated. *Confirmability* (in preference to objectivity) refers to ensuring that the study's findings are the result of the experiences of the informants rather than the preferences of the researcher(s) and can be achieved through an audit trail of the raw data, memos, notes, data reduction and analysis.

Bryman et. al. (2008, p. 266) make the point that the Lincoln and Guba criteria are not “universally accepted as appropriate criteria for qualitative research ...however, the Lincoln and Guba criteria have the advantage of parsimony and they are frequently referred to in the literature”. Table 2 documents the ways in which qualitative researchers can ensure the four criteria for qualitative research outlined by Lincoln and Guba (1985), can be met.

<INSERT TABLE 2 HERE>

As mentioned earlier in this paper some qualitative research methods and designs have developed their own criteria for judging the quality and rigor. Charmaz (2006) proposes four quality criteria for judging grounded theory: credibility; originality; resonance; and usefulness. Others have focused on the research process in qualitative research. Lincoln (1995) developed philosophical criteria, Creswell (1998) developed procedural criteria and Richardson (2000) developed participatory and advocacy criteria. A summary of these three sets of criteria are presented in Table 3.

<INSERT TABLE 3 HERE>

Tracy (2010) developed the Eight “Big-Tent” model for quality in qualitative research. Tracy identifies eight key markers of quality in qualitative research: (1) worthy topic; (2) rich rigor; (3) sincerity; (4) credibility; (5) resonance; (6) significant contribution; (7) ethics and; (8) meaningful coherence. She argues that these markers provide ‘a common language of excellence for qualitative research and a useful pedagogic compass ...A conceptualization for qualitative quality that transcends paradigm encourages scholars to reflect on the variety of

crafts available, develop their own style, yet respect and learn from the practices of others'' (Tracy 2010, p. 849). A summary of the eight "Big-Tent" criteria is provided in Table 4.

<INSERT TABLE 4 HERE>

The third stance or position taken within the qualitative research community rejects the previous two positions and argues that it is inappropriate to have any predetermined criteria to judge a qualitative study.

Stance 3: Predetermined criteria not appropriate

Proponents of this position or stance assert validity is achieved through consensus on each individual study rather than by the blanket application of pre-determined criteria and argue for a complete rejection of all predetermined criteria.

Sandelowski and Barroso (2002) and Rolfe (2006) question the appropriateness of any predetermined criteria for judging qualitative research as there is no unified qualitative research paradigm. "We need to either acknowledge that the commonly perceived quantitative-qualitative dichotomy is in fact a continuum which requires a continuum of quality criteria, or to recognize that each study is individual and unique, and that the task of producing frameworks and predetermined criteria for assessing the quality of research studies is futile" (Rolfe, 2006, p. 304). Rolfe goes on to assert 'Whilst the term 'qualitative research' might be used accurately to describe methods of data collection, it cannot adequately encompass the full range and diversity of non-quantitative' methodologies... The search for generic framework for assessing the quality of qualitative research should be abandoned in favour of individual judgements of individual studies' (Rolfe 2006, p. 309).

CONCLUSION

A key message from this paper aims to convey is that there are several approaches to addressing the quality of research and quality criteria can range from commonly agreed to sets of criteria for mono-method quantitative positivist traditions, to a much more contested terrain within qualitative research. The paper presented the three main stances taken in discussing quality in qualitative research and hinted at quality criteria that has been developed for specific qualitative methodologies (e.g, for grounded theory). Those engaged in the teaching of research methods and/or of building of qualitative research capacity need to be become familiar with these stances. Cassell et al (2009) argue that the processes by which we learn to become effective qualitative management researchers involves learning appropriate research skills and knowledge and their use through three types of processes: reflection, reflexivity and phronesis. Cassell et al (2009, p. 530) argue:

...training needs to take into consideration qualitative researchers' sensemaking processes around the nature of their work. Becoming an accomplished qualitative researcher is a complex process. It involves engagement with a philosophically diverse field where there are different assessments of quality at play...it also requires us to have the opportunities to reflect, be reflexive and experience being a qualitative researcher in order to learn and develop.

The main insights to be gained from this analysis are: novice researchers need to be aware of this array of quality criteria and they need to acknowledge this when choosing and arguing

for a set of criteria that they apply to their own research and that those in charge with building research capacity in business and management research community be cognisant of this array of criteria and the need to impart this knowledge to postgraduate research students/candidates. The paper not only argues for the need for qualitative management researchers to embed the chosen quality frameworks within the writing of the research but takes this one step further by arguing for explicit self reflexivity within the process and products of qualitative research.

REFERENCES

- Andrew S and Halcomb E (2009) *Mixed Methods Research for Nursing and Health Sciences*, Wiley-Blackwell, London.
- Bansal P and Corley K (2011) *From the Editors The coming of age for qualitative research: Embracing the diversity of qualitative methods, in the Academy of Management Journal*, 54(2), 233-237.
- Bryman A Becker S and Sempik J (2008) Quality criteria for quantitative, qualitative and mixed methods research: A view from social policy, *International Journal Social Research Methodology*, 11(4), October, 261-276.
- Burns N and Grove S (2005) *The Practice of Nursing Research Conduct Critique and Utilization*, 5th Edition, Elsevier Saunders, Missouri.
- Cameron R (2010) Mixed Methods in VET Research: Usage and quality, *International Journal of Training Research*, 8(1), June, 25-39.
- Charmaz K (2006) *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. London: Sage.
- Cassell C, Bishop V, Symon G, Johnson P and Buehring A (2009) Learning to be a Qualitative Management Researcher, *Management Learning*, 40(5), 513-533.
- Collins K and O’Cathain A (2009) Ten points about mixed methods research to be considered by the novice researcher, *International Journal of Multiple Research Approaches*, 3(1), 2-7.
- Cooksey R (2008) Paradigm-independent meta-criteria for social and behavioural research, *Proceedings of the 2nd Annual Postgraduate Research Conference*, University of New England, Armidale, NSW, 4-17.
- Creswell JW (1998) *Qualitative Inquiry and Research Design Choosing Among Five Traditions*. Thousand Oaks, CA: Sage Publications.
- Creswell JW and Plano Clark VL (2007) *Designing and Conducting Mixed Methods Research*, Sage, Thousand Oaks, CA.
- Golafshani N (2003) Understanding reliability and validity in qualitative research, *The Qualitative Report*, 8(4), December, 597-607.
- Guba E G & Lincoln YS (2005) Paradigmatic controversies, contradictions and emerging confluences. In N. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (Vol. 8, pp. 191 - 215): Sage Publications
- Johnson B R (1997) Examining the validity structure of qualitative research. *Education*, 118(3), 282-292

Lincoln YS & Guba EG (1985) *Naturalistic inquiry*, Beverly Hills, CA: Sage Publications, Inc.

Mårtensson A and Mårtensson P (2007) Extending Rigor and Relevance: Towards Credible, Contributory and Communicable Research, in *Proceedings of the Fifteenth European Conference on Information Systems* (Österle H, Schelp J, Winter R eds.), 1325-1333, University of St. Gallen, St. Gallen.

Neuman WL (2006) *Social Research Methods Qualitative and Quantitative Approaches*, 6th Edition, Pearson, Boston.

O’Cathain A, Murphy E and Nicholl J (2008) The quality of mixed methods studies in health services research, *Journal of Health Services Research and Policy*, 13(2), 92-98.

Richardson L (2000) Writing; A method of inquiry, in NK Denzin and YS Lincoln (Eds) *Handbook of Qualitative Research*, 2nd edition, Thousand Oakes, SAGE.

Rolfe G (2006) Validity, trustworthiness and rigour: quality and the idea of qualitative research, *Methodological Issues in Nursing Research*, 304-310.

Sale J and Brazil KA (2004) A strategy to identify critical appraisal criteria for primary mixed-method studies, *Quality & Quantity*, 38(4), 351-365.

Sandelowski M and Barroso J (2002) Reading qualitative studies, *International Journal of Qualitative Methods*, 1(1), Article 5.

Tracy S (2010) Qualitative Quality: Eight “Big-Tent” Criteria for Excellent Qualitative research, *Qualitative Inquiry*, 16(10), 837-851.

TABLES

Table 1: Quality criteria for judging quantitative research

Criteria	Description
Validity	The degree to which a research tool measures what it is supposed to measure
Reliability	The degree of consistency with which a research tool measures what it is supposed to measure
Replicability	The same interpretation will be drawn if the study is repeated by different researchers with different respondents following the same methods
Generalisability	The degree to which we can infer the findings from the research sample to the population

Source: Andrews and Halcomb (2009)

Table 2: Quality Criteria for Qualitative Research

Credibility	Transferability	Dependability	Confirmability
Prolonged engagement of site	Identical elements	Multiple data collection methods-	Use triangulation
Persistent observation	Theoretical/ purposive sampling	triangulation	Practice reflexivity
Peer briefing Triangulation	Thick description		Confirmability audit through member checking
Member checks			

Source: Guba and Lincoln (1985)

Table 3: Summary of 3 sets of standards for evaluating the Quality of QUAL research.

Philosophical Criteria Lincoln (1995)	Procedural Criteria Creswell (1998)	Participatory and Advocacy Criteria Richardson (2000)
<p>Positionality: text honest and authentic about stance of author</p> <p>Community: research serves the community in which it was carried out</p> <p>Voice: participant voices must not be silenced, disengaged or marginalised</p> <p>Critical subjectivity: researchers heighten self awareness</p> <p>Reciprocity: between researcher & those being researched</p> <p>Sacredness of relationships: researcher respect relationships a& collaborates on equal terms with participants</p> <p>Sharing priviledges: researcher shares rewards with persons whose lives they portray</p>	<p>Rigorous data collection- multiple forms of data-extensive-long period field collection</p> <p>Consistent philosophical assumptions-evolving design-multiple perspectives Tradition of inquiry</p> <p>Starts with single focus on central phenomenon rather than comparison or relationship as in QUANT research</p> <p>Written persuasively</p> <p>Multiple levels of analysis</p> <p>Narrative- unexpected ideas & believable & realistic information</p> <p>Strategies to confirm accuracy of the study</p> <p>Rigorous data collection- multiple forms of data-extensive-long period field collection</p>	<p>Substantive contribution</p> <p>Aesthetic merit</p> <p>Reflexivity</p> <p>Impact</p> <p>Expression of a reality</p>

Sources: Adapted from Lincoln (1995); Creswell (1998) and; Richardson (2000).

Table 4: Eight “Big-Tent” Criteria for Qualitative research

Criteria	Description
Worthy topic	Topic of the research is relevant, timely, significant and interesting
Rich rigor	Study uses sufficient, abundant, appropriate and complex; theoretical constructs; data and time in the field; sample(s); context(s) ; and data collection & analysis processes
Sincerity	Study is characterised by self-reflexivity and transparency
Credibility	Research is marked by thick description, concrete detail; triangulation or crystallization; multivocality & member reflections
Resonance	Research influences through aesthetics and presentation; naturalistic generalisations & transferable findings
Significant contribution	Provides significant contribution: conceptually; practically; morally; methodologically; and heuristically
Ethical	Considers; procedural ethics; situational & culturally specific ethics; relational ethics and exiting ethics
Meaningful coherence	Study achieves what it purports to be about. Uses methods and procedures that fit stated goals. Meaningfully interconnects literature, research questions/foci, findings, and interpretations with each other

Source: Adapted from Tracy (2010, p. 840)