Conducting Qualitative Empirical Research

Review of the literature

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Abstract

Qualitative research has been considered for having less quality for its perceived subjectivity. Beyond the debate on the quality of the methodologies, this paper seeks to contribute to knowledge by aggregating literature in qualitative research as the point of references for qualitative researchers. This paper argues on the importance of research paradigm, method, and methodologies that have been largely ignored by social researchers. Given the educational research generally deals with people's perception on a particular subject or the processes to attain improvement on learning deliveries, the use of qualitative research method is likely.

Kata Kunci: qualitative research, empirical study, research methodology, research paradigm, literature review

1. INTRODUCTION

Qualitative research has been considered for having less quality for its perceived subjectivity (Seale, 2002). By the nature of the research method, qualitative researchers work around qualitative data generated mainly from capturing research participants' perception in an isolated phenomenon (Yin, 1994; Yin, 2009). A plethora of discussions, however, has been argued for the quality of qualitative study conducted in social research (Myers & Newman, 2007; Patton, 2002; Seale, 2002). It is important, therefore, to move beyond the debate on the methodologies (quantitative versus qualitative) to a relatively new understanding on the differences of those approaches (Venkatesh, Brown, & Bala, 2013) and focuses on conducting qualitative research with the sufficient caution on the method and methodology.

This paper seeks to contribute to knowledge by agregating literature in qualitative research as the point of references for qualitative researchers. It is considered important to provide a firm ground for the future qualitative research. While at the same time encourages novice researchers to explore uncharted teritories with confidence. Following the tradition coined by Michael D. Myers (Myers, 1997, 2002), 'the living research article' may be

updated in the future by the latest knowledge contributed to the literature.

This paper is organized as follows. After a general overview on the qualitative study is presented, the second section elaborates the concept of qualitative study. The importance of a paradimatic standing is discussed in the third section. The fourth section discusses the research methods in qualitative research. Data collection technique is suggested in the fifth section, followed by the approaches of analysis and quality assurance in the next two sections. The paper is concluded with the remarks on the potential applicability of qualitative research in the educational research in Indonesia and further works could be done.

2. QUALITATIVE STUDY

Studies in social and cultural phenomena were the background for the development of qualitative research. It is designed to help researchers understand people and the social and cultural environment where they live (Corbin & Strauss, 2008; Fox-Wolfgramm, 1997; Myers, 1997; Schilling, 2006).

The Qualitative studies could be comprehended by grasping the intellectual goals where the use of such study is usually useful. The intellectual goal is the focus on the attempts to understand something by gaining some insight into a phenomenon (Denzin & Lincoln, 2005; J. Maxwell, 2009). Some of the main intellectual goals are elaborated in the following.

⟩ Understanding the particular context of the social actor where a phenomenon is being investigated (J. Maxwell, 2009). The qualitative researcher tipically studies a small number of individuals or

situations. The uniqueness of an individual will be maintained as the basis for the analysis, rather than on the aggregation of data across individuals or situation.

⟩ Understanding the processes by which the phenomenon takes place. Despite the outcome is not a concern for a qualitative study, the strength of qualitative research is the ability to lead the investigation to the outcome (Joseph A Maxwell, 2004; Joseph A. Maxwell, 2004) .

⟩ Understanding the meaning of events or actions as it is interpreted by social actor. A qualitative researcher investigated how the interpretation of meaning of the phenomena and how the meaning influences the behavior of the actor (J. A. Maxwell, 2013).

While a qualitative research is critically seems to be 'uncertain', conducting such research should be done upon a predefined conceptual framework. It is a system of concepts, assumptions, expectations, beliefs, and theories that explains the main thins to e studied (Miles, Huberman, & Saldana, 2014). A conceptual framework is considered as the constructs comprise the priory knowledge that built by the researcher prior conducting the research (Joseph A. Maxwell, 2004).

3. THE IMPORTANCE OF A PARADIGMATIC STANDING

A research paradigm is the basic belief or worldview of the researcher upon the selection and use of methods and the fundamental ontological and epistemological perspective of research

(Lincoln & Guba, 1985). As the research paradigm normally informed the methodological approaches (See for example (Crotty, 1998; Orlikowski & Baroudi, 1991; Walsham, 1995, 2006, 2014)), a clear articulation of the underpinning paradigm of the research would help determine the research method.

The basic beliefs that define the inquiry paradigms are summarised in the response to three fundamental aspects. The ontological assumption that considers the nature of reality and the potential knowledge might be investigated upon the reality, the epistemological assumption that regards the extent of the relationship between the investigator and the investigated subject, and the methodological assumption that reckons the techniques of the inquiry that will be employed in the investigation.

The social reality is understood to be reproducible. The naturalistic inquiry relies on the perception of the human participants, and can be created and recreated by the actions of human participants as they interact with their surroundings. This is in contrast to the realist that regards the reality would be independent of human perception (Orlikowski & Baroudi, 1991).

Under the naturalistic paradigm, a qualitative researcher holds a belief that reality is constructed by the researcher as the investigator and the participants of research. Should a relatively different construct is brought into the dialogue; the previously held facts may be revised into a new understanding. The belief in this construct is in accord with the Constructivism approach of research that has been suggested in the literature (Guba & Lincoln, 1994).

Different terminology was employed to express the almost identical research approach. The similarity of the ontological, epistemological, and methodological concepts with the Constructivism approach, however, deemed similarity of the research approaches. Walsham (2002) and Orlikowski and Baroudi (1991), for example, labelled the identical approach to be the Interpretive research approach. They assumed that people create and associate meanings to the world as they interact with them. The Interpretive research approach is in the position that the researchers interpret the meanings that have been assigned by the research participants to understand the phenomena.

Few other research approaches have been suggested in the literature. The suitability of a paradigm to the design of the research, however, restricts researchers from adopting a particular approach. The Positivist research paradigm, for instance, views the reality as independent of the involvement of human's construction. In this regard, the perspective of the involved participants is supposed to be absent from the generation of the knowledge. The facts and values in the research are believed to be distinct that the knowledge comprises only facts (Walsham, 2002). The investigation of phenomena in research is carried out by designing a structured instrumentation from a sample of the population. The objective of such studies is primarily theory testing with the intention to increase the understanding of the phenomena (Orlikowski & Baroudi, 1991).

The other alternative of research paradigm is the pragmatism research approach. The Pragmatism research approach assumes that the essence of investigation over phenomena is the intention to intervene and to change the particular part of the phenomena (Göran Goldkuhl, 2012). It is argued that understanding the actions of a society is essential in understanding the society. With regard to the knowledge creation in pragmatism, however, the actions in the society under observations should be the actions that determined for improving the condition in the society. The meaning of a concept, in this regard, is the practical implications of the implementation of the concept (Goran Goldkuhl, 2004). The knowledge generated from the Pragmatism research approach ranges from predicting and understanding, prescriptive, normative and prospective.

4. METHODOLOGICAL CONSIDERATION

There are a number of qualitative research methods advocated in the literature. Three of the most popular research methods in qualitative study will be discussed in this article.

Action research

The Action Research method *'aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goal of social science by joint collaboration within a mutually acceptile ethical framework'* (Rapoport, 1970). The method has been widely used in educational research grounded on the question how a professional task or challenge can be met (Hiim, 2011; Kemmis

& McTaggart, 2005; McKay & Marshall, 2007).

Advocated under the label of Classroom Action Research by some scholars for the common place of its application (Mettetal, 2002), action researchers concerned with the changes while maintain the interest of studying the processes (Baskerville & Myers, 2004). The pragmatism approach of the reearch method seeks what works best in the classroom that could improve student learning.

Case study research

In addition to describing a unit of analysis, the term 'case study' infers a research method. Case study discussed in this section refers to a research method. Case study research method is an empirical enquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident (Yin, 2012). It is a popular qualitative research method that is widely used in Information System (Benbasat, Goldstein, & Mead, 1987; Doolin, 1999; Gregor, 2006), Education (Lichtman, 2013; Seidman, 2013), and Sociology.

Case study research emphasises the exploration of the complex patterns of the case rather than seeking to map statistical and/or causal relationship between abstracted variables (Stake, 2005). Case study research may be positivist or interpretive depends on the chosen basic asumptions of the paradigm. (For further reading, David (2009) and various edition of Yin's writings (1994; 2003, 2009; 2012)) provide comprehensive guidance on conducting qualitative case study research).

Grounded theory

Grounded theory is a research method that seeks to develop contribution to knowledge that is grounded in data gathered and analyzed systematically (Charmaz, 2006; Corbin & Strauss, 2008; Glaser, 1992). The main difference of grounded theory with other method is the approach to theory development. Grounded theory systematizes the state of analyzing and abstracting empirical data into categories and theoretical construct (Schoenherr, Hilpert, Soni, Venkatraman, & Mabert, 2010; Suddaby, 2006; Urquhart & Fernandez, 2006; Urquhart, Lehmann, & Myers, 2009).

5. TECHNIQUE OF DATA COLLECTION

Apart from the method employed in the design of the research, qualitative researchers may opt to utilize one or more data collection technique. These technique ranges from interviews, observation, fieldwork, and archival research (Denzin & Lincoln, 2005; Miles et al., 2014; Myers & Newman, 2007).

It is a common practice to distinguish between primary and secondary sources of data. In general, data which are unpublished and which the researcher has gathered from the people or organization directly are known as primary source data. While secondary sources refer to any materials (books, articles, etc.) which have been previously published (Myers, 1997).

6. MODES OF ANALYSIS

Subsequence to data collection, the collected qualitative data needs to be analyzed and interpreted. The modes of analysis in qualitative research concern primarily with textual analysis either in verbal or written form (Charmaz, 2006; Dierckx de Casterle, Gastmans, Bryon, & Denier, 2012; Evers & van Staa, 2010; Fox-Wolfgramm, 1997). According to Myers (2002), the following are two approaches of analysis widely used by qualitative researchers.

Hermeunistic

Rooted in interpretive paradigm, the hermeunistic mode of analysis concerns primarily to interpret texts. The researcher seeks for the meaning of the text that he/she comes to understand written or verbally.

Semiotics

Semiotics concerns primarily with the meaning of signs and symbols in language. The idea of a word/sign can be assigned to a certain conceptual category. The significance of a category is determined by the frequencies of the category's appearance in the text.

Despite often criticized as a word counting technique, qualitative content analysis (Elo & Kyngas, 2008; Kohlbacher, 2006; Krippendorff, 2004; Mayring, 2000) has been well accepted as a plausible qualitative data analysis. It is suggested as a research technique for making replicable and valid inferences from pattern and regularities in the text.

Recent development in qualitative data analysis has been encouraging for qualitative researchers. Various vendors introduced qualitative data analysis softwares to the market. NVivo, Atlas. Ti, and Wordstat, for instance, are some of the

software packages for researchers to choose from. Those packaegs assists researchers in sorting texts, attaching labels, or accummulating categories attached to the text.

7. QUALITY ASSURANCE

The issue of quality in qualitative research was arisen from the perceived subjectivity of conducting a qualitative inquiry. According to Lincoln and Guba (1985) the quality of a qualitative research can be judged by four criterias, namely 'credibility', 'transferability', 'dependability', and 'confirmability'. Those are derived from concept of traditional social science (Lincoln & Guba, 1985; Patton, 2002).

8. CONCLUDING REMARK

Despite being criticized for its quality, qualitative research has been widely used in social, educational, and information system research. The rigor embedded in the methodology, method and research protocol ascertains the quality of the research.

Beyond the debate on the quality of the methodologies, it is important to ascertain research in our field has implemented a proper measure of the methodologies. Given educational research generally deals with people's perception on a particular subject or the processes to attain improvement on learning deliveries to a certain extent, the use of qualitative research method is likely. The strict application of research method, therefore, ascertains the quality of research outcome.

9. REFERENCE

Baskerville, R. L., & Myers, M. D. (2004). Special Issue on Action Research in Information Systems: Making IS Research Relevant to Practice - Foreword. *Mis Quarterly, 28*(3), 6.

Benbasat, I., Goldstein, D. K., & Mead, M. (1987). The Case Research Strategy in Studies of Information Systems. *Management Information Systems Quarterly, September*, 369 - 386.

Charmaz, K. (2006). *Constructing Grounded Theory : A Practical Guide Through Qualitative Analysis* Retrieved from http://reader.eblib.com.au.ezproxy.lib.swin.edu.au/(S(rqhgu3flldvgulkiey53sx2y))/Reader.aspx?p=585415&o=132&u=M7q4kEVjUpD77Ph0Qkmtlg%3d%3d&t=1310291080&h=C87FFC77E8BC344777737B085FBF7984ED68EE34&s=4509189&ut=405&pg=1&r=img&c=-1&pat=n#

Corbin, J., & Strauss, A. L. (2008). *Basic of Qualitative Research : Techniques and Procedures for Developing Grounded Theory* (3rd ed.). Los Angeles: SAGE Publications.

Crotty, M. (1998). *The Foundations of Social Research: Meaning and Perspective in The Research Process*. St Leonard, New South Wales: Allen & Unwin Pty Ltd.

David, M. (2009). Case Study Research, Overview *Case Study Research*. London: SAGE Publication Ltd.

Denzin, N. K., & Lincoln, Y. S. (2005). The Discplines and Practices of Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (3rd Edition ed.). Thousand Oaks - London - New Delhi: SAGE Publications.

Dierckx de Casterle, B., Gastmans, C., Bryon, E., & Denier, Y. (2012). QUAGOL: a guide for qualitative data analysis. *Int J Nurs Stud, 49*(3), 360-371. doi: 10.1016/j.ijnurstu.2011.09.012

Doolin, B. (1999). *Information Systems, Power, and Organisational Relations : A Case Study.* Paper presented at the International Conference on Information Systems (ICIS).

Elo, S., & Kyngas, H. (2008). The qualitative content analysis process. *J Adv Nurs, 62*(1), 107-115. doi: 10.1111/j.1365-2648.2007.04569.x

Evers, J. C., & van Staa, A. (2010). Qualitative Analysis in Case Study. In A. J. Mills, G. Durepos & E. Wiebe (Eds.), Encyclopedia of Case Study Research (pp. 750 - 758). Thousand Oaks: SAGE Publications, Inc. doi: 10.4135/9781412957397.n277

Fox-Wolfgramm, S. J. (1997). Towards Developing a Methodology for Doing Qualitative Research : The Dynamic-Comparative Case Study Method. *Scandinavian Journal Management, 13*(4), 439-455.

Glaser, B. G. (1992). *Basics of Grounded Theory : Emerging vs Forcing* Mill Valley: Sociology Press.

Goldkuhl, G. (2004). Meaning of Pragmatism: Ways to conduct information systems research. *Organisations and Information Systems*, 13-26.

Goldkuhl, G. (2012). Pragmatism vs interpretivism in qualitative information systems research. *European Journal of Information Systems, 21*(2), 135-146. doi: 10.1057/ejis.2011.54

Gregor, S. (2006). The Nature of Theory in Information Systems. *Mis Quarterly, 30*(3), 611-642.

Guba, E. G., & Lincoln, Y. S. (1994). Competing Paradigms in Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 105-118). Thousand Oaks - London - New Delhi: SAGE Publications.

Hiim, H. (2011). Epistemological Perspectives in an Approach to Teacher Research. *Researcher in Teacher Education, 1*(1), 11.

Kemmis, S., & McTaggart, R. (2005). Participatory Action Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (3rd Edition ed., pp. 559-603). Thousand Oaks - London - New Delhi: SAGE Publications.

Kohlbacher, F. (2006). The Use of Qualitative Content Analysis in Case Study Research. *Qualitative Social Research, 7*(1).

Krippendorff, K. (2004). *Content Analysis : An Introduction to Its Methodology* (2nd ed.): SAGE Publications.

Lichtman, M. (2013). *Qualitative Research in Education: A User's Guide: A User's Guide* (3rd Ed.): Thousand Oaks : SAGE.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Newbury Park: SAGE Publications.

Maxwell, J. (2009). Designing a Qualitative Study. In L. Bickman & D. J. Rog (Eds.), *The SAGE Handook of Applied Social Research Methods* (pp. 214-253). Thousand Oaks: SAGE Publications, Inc.

Maxwell, J. A. (2004). Causal Explanation, Qualitative Research, and Scienific Inquiry in Education. *Educational Researcher, 3*(2), 9.

Maxwell, J. A. (2004). Using Qualitative Methods for Causal Explanation. *Field Methods, 16*(3), 243-264. doi: 10.1177/1525822x04266831

Maxwell, J. A. (2013). *Qualitative Research Design: An Interactive Approach* (3rd ed.): Thousand Oaks : SAGE

Mayring, P. (2000). Qualitative Content Analysis. *Forum Qualitative Social Research, 1*(2).

McKay, J., & Marshall, P. (2007). Driven by Two Masters, Serving Both : The Interplay of Problem Solving and Research in Information Systems Action Research Projects. In N. Kock (Ed.), Information Systems Action Research (pp. 131-160): Springer.

Mettetal, G. (2002). The what, why and how of classroom action research. *Journal of the Scholarship of Teaching and Learning, 2*(1), 7.

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook* (3 ed.). Los Angeles: SAGE Publications, Inc.

Myers, M. D. (1997). Qualitative Research in Information Systems. *MIS Discoveries.* Retrieved 6/11/2016, 2016, from http://www.qual.auckland.ac.nz/

Myers, M. D. (2002). An Introduction to Qualitative Research in Information Systems. In M. D. Myers & D. Avison (Eds.), Qualitative Research in Information Systems. London: SAGE Publications, Ltd.

Myers, M. D., & Newman, M. (2007). The qualitative interview in IS research: Examining the craft. *Information and Organization, 17*(1), 2-26. doi: 10.1016/j.infoandorg.2006.11.001

Orlikowski, W. J., & Baroudi, J. J. (1991). Studying Information Technology in Organizations: Research Approaches and Assumptions. *Information Systems Research, 2*(1), 29.

Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods* (3rd ed.). London: Sage Publications, Inc. .

Rapoport, R. N. (1970). Three Dilemmas in Action Research. *Human Relations, 23*(6), 14.

Schilling, J. (2006). On the Pragmatics of Qualitative Assessment. *European Journal of Psychological Assessment, 22*(1), 28-37. doi: 10.1027/1015-5759.22.1.28

Schoenherr, T., Hilpert, D., Soni, A. K., Venkatraman, M. A., & Mabert, V. A. (2010). Enterprise Systems Complexities and Its Antecedents: a grounded-theory approach. *International Journal of Operations & Production Management, 30*(6), 29.

Seale, C. (2002). Quality Issues in Qualitative Inquiry. *Qualitative Social Work, 1*(1), 14.

Seidman, I. (2013). *Inerviewing As Qualitative Research: A Guide for Researchers in Education and the Social Sciences* (4 Ed.): Teachers College Press.

Stake, R. E. (2005). Qualitative Case Studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (3rd Edition ed.). Thousand Oaks - London - New Delhi: SAGE Publications.

Suddaby, R. (2006). From The Editors : What Grounded Theory is Not. *Academy of Management Journal, 49*(4), 633-642.

Urquhart, C., & Fernandez, W. (2006). *Grounded Theory Method : The Researcher as Blank State and Other Myths*. Paper presented at the Twenty Seventh International Conference on Information Systems, Milwaukee.

Urquhart, C., Lehmann, H., & Myers, M. D. (2009). Putting the 'theory' back into grounded theory: guidelines for grounded theory studies in information systems. *Information Systems Journal, 20*(4), 357-381. doi: 10.1111/j.1365-2575.2009.00328.x

Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the Qualitative - Quantitative Divide Guidelines for Conducting Mixed Methods Research in Information Systems. *Mis Quarterly, 37*(1), 33.

Walsham, G. (1995). Interpretive Case Studies in IS Research: nature and method. *European Journal of Information Systems, 4*, 7.

Walsham, G. (2002). Interpretive Case Studies in IS Research: Nature and Methods. In M. D. A. Myers, David E. (Ed.), Qualitative Research in Information Systems (pp. 9). London: SAGE Publications.

Walsham, G. (2006). Doing interpretive research. *European Journal of Information Systems, 15*(3), 320-330. doi: 10.1057/palgrave.ejis.3000589

Walsham, G. (2014). Empiricism in interpretive IS research: a response to Stahl. *European Journal of Information Systems, 23*(1), 12-16. doi: 10.1057/ejis.2012.57

Yin, R. K. (1994). Discovering the Future of the Case Study. Method in Evaluation Research. *American Journal of Evaluation, 15*(3), 283-290. doi: 10.1177/109821409401500309

Yin, R. K. (2003). *Case Study Research, Design and Methods* (3rd ed. Vol. 5). Thousand Oaks - London - New Delhi: SAGE Publications.

Yin, R. K. (2009). *Case Study Research: Design and Methods* (4 ed.). London: SAGE Publications, Inc.

Yin, R. K. (2012). *Applications of Case Study Research* (3rd ed.). Los Angeles: SAGE Publications Inc. .