

EDITORIAL FORWARD

Thematic analysis in qualitative research

The Journal of Agricultural Sciences – Sri Lanka has received a lot of research papers relating to areas such as crop science, food science, soil science, livestock production and allied fields during the recent past. They have predominantly used standard experimental designs and other quantitative methodological approaches. Quite a few were from the areas such as agribusiness, agricultural economics and agricultural extension. They have predominantly used surveys to conduct research and have used quantitative methods for analysis of data. There is a lack of research utilizing other methods such as qualitative approach, or mixed methods. The objective of this editorial is to promote thematic analysis as a useful tool of analysis of qualitative data and to attract the attention of researchers who have concluded qualitative studies.

There are three broad research paradigms, namely, quantitative research, qualitative research and the mixed research (Johnson, and Christensen, 2004). Qualitative research follows an inductive or bottom-up approach where new hypotheses or grounded theory can be generated. It assumes that the human behaviour is more fluid, dynamic, situational, social, contextual and personal. Creswell (2003) summarises the strategies associated with qualitative research approach as ethnographies, grounded theory, case studies, phenomenological research, and narrative research.

Qualitative data can be collected through tools such as surveys, in-depth interviews, field observations and open-ended questions. The nature of data so collected may be images, articles, diaries, blog posts, interview transcripts, web pages, posts in social media or even audio and video files. Such data are put through data analysis as a set, with researchers seeking to identify patterns running through the body as a whole. Data analysis in qualitative research may be done through searching for patterns, themes or even more holistic features such as explanations of certain human behaviour. Thematic analysis is a quite useful qualitative data analysis tool in a sense that it typically fragments texts according to themes, codes small portions, and then collates them. Thematic analysis is used to analyze data related to opinions, thoughts, feelings and other descriptive expressions. Thematic analysis has become increasingly popular in social sciences research, as it allows researchers to look at a data set obtained through multiple qualitative sources and pull out the broad themes running through the entire data set to make a meaning.

Thematic analysis may involve an inductive or deductive identification of codes in the data (Braun, and Clarke, 2006). According to Liamputtong and Ezzy (2005), thematic analysis involves the identification of themes through careful reading of data that are transcribed. The methodology is inductive in the sense that it builds up concepts and theories from the data, compared with the deductive methodology of content analysis. It usually uses a set of texts that are transcribed data extracted from in-depth interviews. The researcher closely examines the data to identify common themes – topics, ideas and patterns of meaning that come up repeatedly. The goal of a thematic analysis is to identify themes such as patterns in the data that are useful in explaining a certain behaviour, and use these themes to address the research or explain something about a social issue. A thematic analysis interprets and makes sense of data rather than simply summarising the data. A theme is a grouping of data emerging from the research and one to which the researcher gives a title. A theme list is a set of topics used to guide focused or in-depth interviews in the fieldwork.

The themes of important messages or characteristics are identified or extracted in a thematic type of analysis (Liamputtong and Ezzy, 2005). The emerging themes are then identified as the categories of

the analysis. In a thematic analysis, frequency of occurrence is not a major concern as it is in a content analysis, but the position of the idea in the narrative and its significance are more important.

In a broad sense, a thematic analysis involves initial analysis, coding of data, identifying themes and reporting on the findings. While there are many types of thematic analyses, a thematic analysis process can be generalized into six steps. Familiarization is the first step in which the research team or researcher become familiar with the data. This may involve reading and re-reading, and even transcribing the data. Initial thoughts about the potential themes identified within the data is the objective of familiarization which can be the starting point for assigning codes. The second step is the coding. In thematic analysis, codes are used to identify the ideas and topics in the data and refer to them quickly and easily. Codes can be assigned to pieces of text data or clips from videos and audio files. Depending on the type of thematic analysis used, this can be done with a systematic, or in a more spontaneous manner.

The third step is identifying themes. Themes are the predominant ideas and subject areas within the body of research data. Researchers can identify themes by collating together the results of the coding process, generating themes that tie together the codes identified, into meaningful groups according to the matters being discussed and explained. Themes are different from codes, because they capture patterns in the data rather than just topics, and they relate directly to the research questions. Reviewing of themes is the fourth step in a thematic analysis. Once the themes were defined, the researcher checks back to see how well the themes support the coded data extracts. At this stage, the researcher may organize a contextual map of themes to match with the theoretical framework of the study. Defining and labelling the themes is the fifth step in which the researcher reviews the themes and defines them more precisely. The last of the six steps is the writing up. At this stage, the researcher compiles a comprehensive write-up of the codes and themes, underlying concepts and findings extracted from the data, and any other realities found in the analysis.

Thematic analysis is a useful step in many research projects that employ a qualitative approach. Carrying out thematic analysis manually may be time-consuming and a painstaking work. Although thematic analysis can be done comprehensively using manual techniques, there are popular software that can be used for this purpose especially to deal with large data sets. Thematic analysis software is designed to help researchers organize, analyze, and to interpret unstructured or qualitative data. The latest iterations of softwares are able not only to analyze text data, but also to perform efficient analysis of video and audio files, matching the qualitative coding and even helping build out the thematic map, while respecting the researcher's theoretical commitments and research design. MAXQDA and NVivo are popular thematic analysis software that offer text search tools that allow the researchers to explore documents without coding or reading them first. Search for keywords and automatically coding them can be done using these softwares quite rapidly.

Like any kind of qualitative analysis, thematic analysis has its advantages and disadvantages. Therefore, the use of it in a particular study depends on priorities and preferences of the researcher. A key strength of it is that it is quite flexible in the sense that it allows qualitative researchers a great flexibility throughout the process, particularly if they choose reflexive thematic analysis. Thematic analysis is broadly applicable to address a wide range of research questions. Thematic analysis is also easy to learn and apply. It does not require advanced statistical knowledge. It can be done manually or assisted by software. There exist some disadvantages as well in thematic analysis. It is rather difficult to employ thematic analysis in a study with a broad scope that requires to identify a large number of potential themes. Multilingual data should be converted into a single language for thematic analyses as they rely on language-based codes defined in a single language. Therefore, the research team and

the research subjects (respondents) ideally should speak one language. Also, it can be difficult for a novice researcher to confidently identify the difference between themes and codes.

Therefore, it is important for a qualitative researcher to enhance his knowledge on the analysis of qualitative data using tools such as thematic analysis as a prudent option. The credibility of a qualitative study may depend heavily on the researcher's ability to be sensitive to the data and to extract a meaning from data.

REFERENCES

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Creswell, J. (2003). *Research design: Qualitative, quantitative and mixed approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Johnson, B., and Christensen, L. (2004). *Educational research: Quantitative, qualitative and mixed approaches* (2nd ed.). USA: Allyn and Bacon, Inc.
- Liamputtong, P., and Ezzy, D. (2005). *Qualitative research methods* (2nd ed.) Victoria: Oxford University Press.

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