Using Qualitative Data Analysis Software in the Study of Educators' lived experiences: Exploring the Divergence and Convergence of the Role of the Researcher

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Abstract

The recent COVID-19 pandemic has initiated a paradigm shift in using technology in almost all research, teaching and learning matters. However, very often, focus is laid on the students, and there is a dearth of research about the impact on the researchers. This research gap initiated the embarkation of this research to explore the role of the researchers in using qualitative data analysis software. Specifically, it seeks to delineate the position of the researcher in a qualitative research. This paper presents some preliminary findings on the use of technology (i.e. Qualitative data analysis software) and manual methodology in analysing some qualitative data pertaining to educators' lived experiences. Data were collected using active interview methodology to study the lived experiences of the English lecturers. The finding also suggests that qualitative research could boost its reliability and validity in the analyses and findings by combining the use technology in analysing data and human's ability and instinct. This is because the role of the researchers must be acknowledged and bracketed so that the data analysis can yield more significant results.

Keywords: Convergence, Divergence, Educator's Lived Experiences, Qualitative Data Analysis Software, Management

Introduction

The COVID-19 Pandemic has forced almost all research, teaching and learning activities in Malaysia to use the online tools, approaches and platforms (Ministry of Education, 2021). Educators are left with no options but to learn new technologies in their research, teaching

and learning. This paradigm shift has revolved since the start of the pandemic in December 2019. There is little time for everyone to learn the technology but the situations encourage learning through practise methodology. Similarly, for researchers whose work are impacted by the pandemic, using technology in data collection and data analysis seems to be a more practical and feasible way forward.

Hence, this study explores the belief and perceptions of the English lecturers who are teaching a course on the CEFR-aligned English subject. Specifically, this paper aims to examine the intertwining relationship between using technology-enhanced analytical methodology and the role of the human's interpretation. More specifically, this paper explored the scenario of analysing qualitative data using Atlas.Ti, a Qualitative Data Analysis Software (QDAS) and the role of the researchers in data analysis. The objectives of the research are as the following:
1. To examine the role of the researchers in terms of data interpretation
2. To examine the importance of bracketing process in data analysis

Much has been debated about the use of qualitative data analysis software (St John & Johnson , 2000) and (Rahman, 2016), but very little research focuses on the role of the researchers and the bracketing processes. Unlike quantitative research which is more objective in nature, qualitative research takes into consideration the subjectivity of the researchers' interpretation. Hence, this research is to fill the research gap of the existing literature where it focuses on the role of the role of the researchers and the bracketing processes.

Literature Review
The studies on perception and belief often lend itself heavily in quantitative methodology. This is because quantitative methodology provides a platform to analysing enormous data (Denzin & Lincoln, 2017) and (Creswell & Creswell, 2018). The data often comes in the forms of numbers and figres. This methodology is beneficial because it could handle large chunk of numerical data and explicate intricate relationships by testing the hypotheses. However, when it comes to interview data, the researchers believe that using a qualitative approach could yield more insights pertaining to experiences (Peoples, 2020). This is because human experiences are better described qualitatively (Daher, Carre, Jaramillo, Olivares, & Tomicic, 2017). In this study, qualitative data analysis software such as Atlas.Ti version 9 is used in data analysis. Similarly, manual coding and the human's instincts in reading the interviewee's tone, voice, facial expressions are equally important and critical.

In the Malaysian context, (Jeong & Othman, 2016) studied the issues in English classroom from a realist's perspective by using the interpretive phenomenological approach. Interpretive phenomenological approach can afford new and novice researchers the opportunity to explore, in more detail, the 'lived experiences' of the research participants (Alase, 2017), and (Smith, Flowers, & Larkin, 2009) and (Yee, Sim, Ng, Low, & Chong, 2017) have used similar methodological framework to examine the use of technology in a language classroom to engineering students.

With regards to interpretation, research subjectivities are often ignored as we strived to examine data objectively and scientifically. The questions on subjectivity have been discussed extensively by Mruck and Breuer (Mruck & Breuer, 2003). The reason for using a Qualitative

data analysis software is to avoid subjectivity at all cost. Besides, the software also provides a more systematic and objective analysis. However, in this paper, the researchers suggest that the roles of the researchers, which are clearly defined in phenomenological research, can capitalise on the issues of subjectivities into some important data that the software might not be able to detect.

Methodology

In this study, the researchers interviewed three English lecturers who are teaching the CEFR-aligned English subject. The interviewees are experienced educators who have approximately 15 years of teaching English. They have been trained by the ministry to teach the CEFR-aligned English subjects via various mechanisms – workshops, seminars, focus-group, etc. These educators are also familiar with the CEFR-aligned curriculum. The interviewees are in their 40s. There are two male and one female interviewees. However, age, gender, ethic groups are not the focus of this study. The selection of the participants is through a snowball method as it is the most practical methodology in a qualitative research (Creswell & Creswell, 2018).

The researchers interviewed the educators three times throughout a semester which lasted approximately 4 months. The researchers also conducted two sessions of classroom observations with the permission from the goalkeepers. In this case, the school principals. All these were conducted using Microsoft Teams. This is to minimise interruption on the teaching and learning process. The Interviews and classroom observations in Microsoft Teams were recorded adhering to the personal data protection act (PDPA). The analysis of data follows a six-step methodology as prescribed by (Braun & Clarke, 2021). This is illustrated in Figure 1.
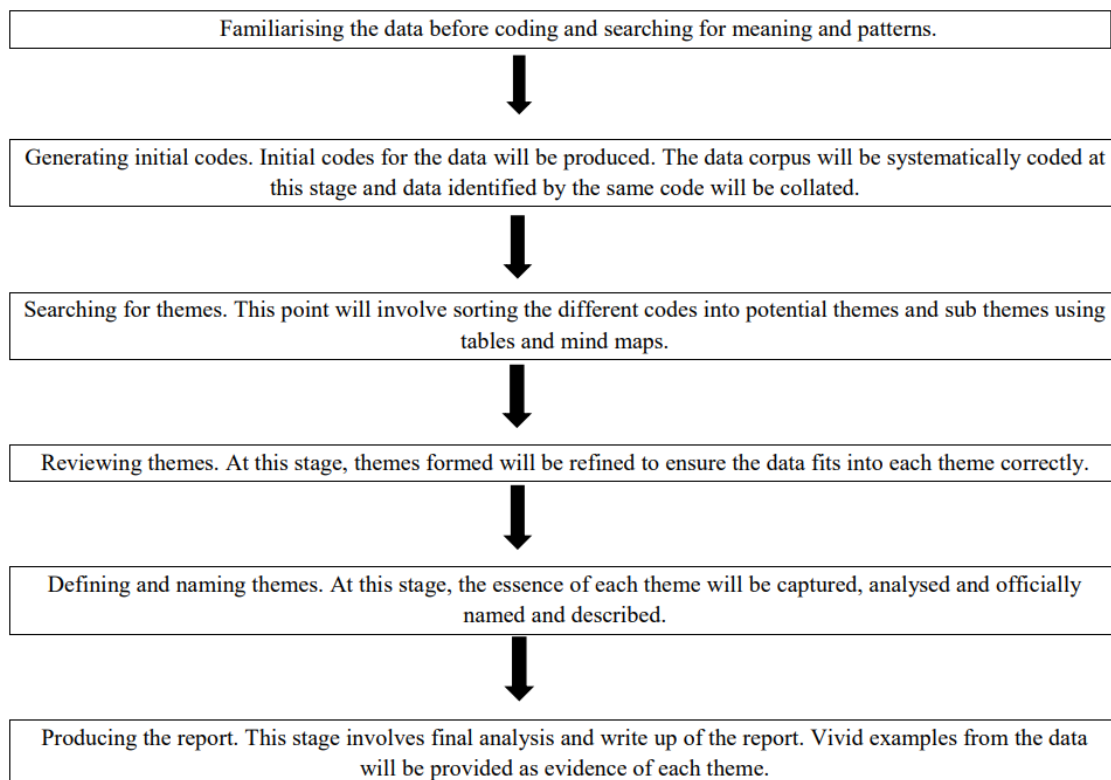
Familiarising the data before coding and searching for meaning and patterns.

Generating initial codes. Initial codes for the data will be produced. The data corpus will be systematically coded at this stage and data identified by the same code will be collated.

Searching for themes. This point will involve sorting the different codes into potential themes and sub themes using tables and mind maps.

Reviewing themes. At this stage, themes formed will be refined to ensure the data fits into each theme correctly.

Defining and naming themes. At this stage, the essence of each theme will be captured, analysed and officially named and described.

Producing the report. This stage involves final analysis and write up of the report. Vivid examples from the data will be provided as evidence of each theme.

Figure 1: Thematic analysis

Findings

Step 1, the reading and re-reading process. The researchers focused on understanding the general gist of the interview data. It is extremely important to also note the change of voice, tone, and facial expressions of the interviewees are crucial in determining the experience of the lecturers. Sometimes, the linguistic nuances play a role in terms of emotion and feeling, which are vital parts of the meaning-making process (Birner, 2012) and (Thomas, 1995). This observation could not be performed by the qualitative data analysis software. Moreover, the interviewees might use certain satire, humour or sinister to insinuate some of their viewpoints. Such nuances are imperative for this research which focuses on experiences. These can sometimes be exaggerated by facial expressions and gestures.

Step 2, the initial coding process. The researchers coded the interview transcript using Atlas.Ti. The coding was then re-examined to include the nuances that were not captured by the words spoken by the interviewees. This is especially apparent with some localised discourse markers. Discourse markers sometimes are multifaceted and have various meanings (Schiffrin, 2003). Discourse markers such as *hmmm, oh ok*, as well as some markers in Malaysian English such as the suffix *-lah*, and *-lo* do evoke some hidden meanings (Tay, Chan, Yap, & Wong, 2016). The tone of the interviews could also suggest some emotional changes such as disgusted, pessimistic, sceptical, and happy.

In step 3, the development of emergent themes process includes re-triangulating the themes among all the interviewees. The themes that emerged from the coding were generally reflective of the interviews. This step has lesser issues in terms of precision and consistency as the themes are generally sophisticated, logical, sensible and reasonable. Besides, it is important to note that the researchers have already eliminated errors in steps 1 and 2. Hence, when reaching step 3, the data is supposed to be smooth and tidy. At times, the researchers must also reconfigure the transcripts and the recording to ensure that the interpretation is appropriate.

In step 4, the searching for connections across emergent themes process, the researchers would have to watch and listen to interviews again to avoid any missing data. In other words, the researchers had to review the recording several times. Sometimes, one smirk on the interviewee's face could also suggest that they were prejudiced or have other opinions, but was reluctant to express his or her own opinion during the interview. When this happens, the research had to encourage and illicit further in order for the respondents to reveal their feelings and emotions. Hence, the researchers have to be extra careful in handling such sensitive data. However, this is less apparent as the themes generally covered most of the ideas generated.

In step 5, moving to the next case process does not have any major issue as it was the examination of a new case using the steps 1-4 cycle. However, there are also instances that after examining the second case, the researchers will have to re-examine the first case to compare and contrast the data. This is to maintain consistency of the data. Also, while examining the commonalities and particularities, the researcher had to revisit the case to examine some missing information. Occasionally, after the second case, the researcher may notice some discrepancy in the first case, and hence, the research must return to the first case and rectify the errors made.

In step 6, looking for patterns across cases process does not usually have major problems as the patterns were generated from the thematic analysis. This final step is rigorous because the cycle of steps 1-5 is carefully observed. In this step, the role of the researcher is fortified by using bracketing to note bias, assumption, and personal experience (Dörfler & Stierand, 2021). This is also the time that the researcher could cross-check with their field notes for self-reflection purposes.

In conclusion, the role of the researcher in the interpretation of the data is particularly important in steps 1-4. Hence it is recommended that steps 1-4 must be carefully examined several times. Bracketing is very important because it can provide insights into the deeper levels of the intended meaning and thus making the social construction process more vivid. This includes incorporating the skills of the researcher's instinct and perception, as well as the sophisticated of the qualitative data analysis software.

Conclusion

The researchers suggest that although data analysis software could generate objective data and themes, the researcher's perceptions which are heavily based on subjectivities could also help in enriching the data. Humanising the technology could enhance the data analysis step. Technology could ensure the objectivity of the interpretation. Human's interpretation which are often subjective could then enrich the interpretation.

In terms of contribution, the findings of this paper could assist qualitative researchers to handle qualitative data by providing a new and improvised method to complement with the existing data. The researcher's role, in this sense, is vital in making the context as a representation of the realities. This is supported by the idea of interpretivism where details analysis must include the human sense in order to contextualise the realities. The methodological contrivution also suggests that researchers may have to be more flexible and creative by developing a combined-methodology. If a methodology is appropriate to the nature of the study, the researcher could even go further by developing a theoretical model.

Acknowledgements

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