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Understanding Thematic Analysis and the Debates Involving Its Use

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Abstract
The misconceptions researchers have about thematic analysis lead to various problems, which include publishing papers without mentioning the techniques they used to analyze their data. One reason such problems occur is that thematic analysis has been a poorly demarcated method for many years. Another has to do with the lack of literature on how this method differs from other approaches to research. In this paper, I aim to close this gap by explaining how different versions of thematic analysis vary from each other and discussing the controversies associated with each version. My conclusions are based on an analysis of what leading authors have published about this topic. I used a purposeful sample consisting of publications written by notable authors. I then analyzed this content to write a conceptual paper designed to enhance the understanding of different versions of thematic analysis and to document the controversies associated with each type.

Keywords
thematic analysis, qualitative inquiry, textual analysis

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Understanding Thematic Analysis and the Debates Involving Its Use

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The misconceptions researchers have about thematic analysis lead to various problems, which include publishing papers without mentioning the techniques they used to analyze their data. One reason such problems occur is that thematic analysis has been a poorly demarcated method for many years. Another has to do with the lack of literature on how this method differs from other approaches to research. In this paper, I aim to close this gap by explaining how different versions of thematic analysis vary from each other and discussing the controversies associated with each version. My conclusions are based on an analysis of what leading authors have published about this topic. I used a purposeful sample consisting of publications written by notable authors. I then analyzed this content to write a conceptual paper designed to enhance the understanding of different versions of thematic analysis and to document the controversies associated with each type.

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Introduction

Thematic analysis (TA) frequently confuses researchers because different versions of this method exist (Clarke & Braun, 2018). Researchers may be unsure of the version of TA that is most suitable for fulfilling the goals of their studies and the problems associated with combining different versions of this method (Braun et al., 2019). For instance, conducting a reflexive thematic analysis involves using an approach associated with a completely qualitative paradigm, but other versions involve implementing postpositivist methods (Clarke & Braun, 2018). Combining elements of different versions of TA can result in publishing papers without recognizing the conceptual clashes between different approaches (Braun et al., 2019). Researchers need to be aware of the advantages and controversies associated with each type of TA to produce the appropriate findings for their studies.

The misconceptions researchers have about TA can lead them to produce poorly designed studies. For example, they may follow the procedures of two types of this method that do not align with each other (Braun et al., 2019). Not understanding how TA differs from other approaches has also led researchers to avoid revealing the method they implemented to analyze their data (Vaismoradi et al., 2013). This trend is problematic because it makes it difficult to evaluate a study. It also prevents researchers from modeling existing studies (Braun & Clarke, 2006). Unfortunately, few papers and books have been published on how TA differs from other approaches to research and how different versions of this technique vary from each other. In this paper, I aim to close this gap in the literature by clarifying how different versions of TA vary from each other and how TA differs from other approaches to research. I also discuss the controversies associated with implementing different versions of TA.
Definition and Importance of TA

Thematic analysis is a method for developing themes, which are patterns in the data researchers collect (Joffe, 2012). It is not a methodology consisting of a guiding theory. Methodologies include more components of research, such as guiding theory and orientation to language. In contrast, methods allow researchers to choose a wide range of options, such as data type and guiding theory (Braun & Clarke, 2022). TA offers techniques and tools to make sense of a dataset, but it can be a confusing method because different researchers have offered varying ideas for conducting a TA (Braun et al., 2019). These ideas are based on paradigms that may not work well when combined. The different types of this method, however, have one thing in common: developing patterns of meaning through a coding process (Braun & Clarke, 2022).

Having the skills to conduct a TA is crucial for anyone interested in participating in qualitative research. Although qualitative approaches are extremely diverse, developing themes is a component of many types of qualitative studies. For this reason, TA has been viewed as a foundational method that should be the first one a qualitative researcher needs to learn (Braun & Clarke, 2006).

Historical Overview of TA

Thematic analysis likely evolved from content analysis, a historically quantitative method (Joffe, 2012). The systematic analyses of texts occurred as early as the 17th century. During the late 1600s, dissertations about newspapers were defended (Krippendorff, 2019). But the contributions to the methodology of content analysis were limited during this time. During the 18th century, well-documented quantitative analyses occurred in Sweden. These studies led to a controversy that contributed to debates similar to the ones that exist today. The controversy in Sweden was about a list of religious symbols in the Songs of Zion, a set of 90 hymns. A group of scholars created a list about the symbols in the songs that led to a debate about whether this content protected threatening ideas. The debate involved whether the symbols’ meanings should be interpreted metaphorically or literally. In settling the debate, both sides became aware that the symbols in the Songs of Zion differed in meaning from those in other songbooks because they were created in a different context. The ideas that were exchanged during this controversy occur frequently today when content analysis is considered as an approach to research (Krippendorff, 2019).

The first presentation of a methodological approach using the term “content analysis” was a text titled The Analysis of Communication Content. It was authored by Berelson and Lazarsfeld and appeared in 1948 (Krippendorff, 2019). This text was later published in 1952 as Content Analysis in Communication Research. In this book, Berelson indicated that content analysis is a systematic and objective method for quantitative description (Schreier, 2014). But in the same year his book was published, his approach was challenged. Kracauer (1952) objected to Berelson’s narrow view, pointing out that meaning is not always apparent at first sight and is frequently holistic, complex, and context dependent. He was also opposed to the practice, often used in quantitative studies, of associating the importance of a theme with its coding frequency. For this reason, Kracauer has been viewed as an early advocate of qualitative text analysis (Schreier, 2014).

Although Kracauer believed that the overemphasis of quantification would likely lessen the accuracy of an analysis, he mentioned that qualitative and quantitative analyses are not radically different from each other and that the two approaches may be complementary. The number of times an idea is mentioned in the data is frequently connected in some way to the themes that qualitative researchers identify. For instance, people suffering from arthritis may
mention feeling pain more often than those without this disease because they experience higher levels of pain. Although Kracauer indicated that qualitative analysis is typically conducted without an emphasis on frequencies, he stated that frequency counts may be used when forming categories when the approach he recommended is implemented (Kracauer, 1952).

Although TA likely developed from content analysis, understanding precisely how it evolved is difficult to determine because it was applied in diverse ways before Berelson published his work (Braun & Clarke, 2022). During the 1930s, musicologists used the term “thematische analysis” to describe a specific kind of analysis of musical scores. The term was also used in the 1940s when sociologists referred to a technique to analyze mass propaganda. In the 1940s and 1950s, psychoanalysts used the term as well (Braun & Clarke, 2022).

**Modern Versions of TA**

Modern versions of TA have been classified based on the extent to which each one requires the use of qualitative methods (Braun & Clarke, 2022). Braun et al. (2019) identified three broad schools of TA and mentioned that each one is associated with more than one way of conducting this type of analysis. The first school is associated with a reflexive approach, the second with a coding reliability approach, and the third with a codebook approach.

*The Reflexive Approach*

Of the three schools, the only one associated with a fully qualitative paradigm is the reflexive approach. This approach differs from the other two regarding how the coding process is implemented and how the themes are conceptualized. When a fully qualitative approach is used, subjectivity is viewed as an advantage rather than something that needs to be avoided (Braun et al., 2019). And the coding process is not determined before a researcher examines the data. Instead, it is frequently implemented with an inductive approach (Terry et al., 2017).

Being aware of the difference between an inductive and a deductive coding process can help in understanding why a fully qualitative orientation often involves an inductive approach. The deductive process occurs when researchers explore the data through preconceived theoretical ideas to refute, extend, or replicate existing studies (Joffe & Yardley, 2004). This approach is consistent with the scientific method because the researcher develops a hypothesis and tests it. But just because a deductive process is used does not mean that a study is designed to test a hypothesis. In any study involving the identification of themes, a researcher’s preconceived ideas play a role (Joffe & Yardley, 2004). However, qualitative researchers tend to rely less on deductive methods than those who conduct quantitative studies.

In many qualitative studies, researchers typically do more than explore how their preconceived ideas match the data. One of their goals is to make sense of the trends in the data that do not match these ideas. Thus, high-quality qualitative research is based on a dual inductive-deductive process of developing themes (Joffe, 2012). Bamford et al. (2021) provided an example of how an inductive approach may be implemented. They conducted a qualitative study designed to identify the components of good post-diagnostic dementia support and identified these components through an inductive, thematic approach. When conducting their analysis, they used an approach grounded in the data. In contrast to this approach, some researchers rely on more deductive methods, determining some of their codes and themes in advance based on pre-existing theory (Terry et al., 2017).

In addition to relying on a coding process that is often more inductive, the reflexive approach emphasizes viewing themes as shared meaning-based patterns. In TA research, two ideas exist for developing themes. Researchers can view them as shared meaning-based patterns or as domain summaries (Braun et al., 2019). When researchers view themes as shared
meaning-based patterns, they proceed by developing ideas about pattern meaning from the dataset. They form shared meaning-based patterns by using their expertise to unite data that may otherwise seem dissimilar. Themes developed this way frequently consist of abstract ideas that capture latent meaning in the data, but they can also capture more explicit meaning (Braun et al., 2019).

In contrast to the reflexive approach, other approaches lead researchers to view themes as domain summaries, encouraging them to summarize their data in relation to a topic at the semantic or surface level (Braun et al., 2019). To differentiate between a domain summary and a shared meaning-based pattern, Braun and Clarke (2022) provided an example involving a dataset about the concept of being childfree. This concept involves adults who choose not to have children. An example of a domain summary from such a dataset may consist of clustering all the reasons for being childfree together. In this example, “reasons for being childfree” would be the domain. Although a domain-summary approach to analyzing such a dataset may be useful, it would not require researchers to show how the reasons for choosing to be childfree stick together. In contrast, if researchers were to look beyond the semantic responses in the same dataset, they may find patterns across the reasons for being childfree. By doing so, they might find that selfishness may be developed into a theme. To determine whether this is possible, they would need to do more than just focus on the instances that mention reasons for being childfree in the data; they would need to explore the entire dataset to find out whether any parts of the data contain ideas related to selfishness (Braun & Clarke, 2022).

Hjelmgren et al. (2022) conducted research providing examples of how themes viewed as shared meaning-based patterns may appear in a published study. They indicated that they used reflexive thematic analysis to analyze interviews conducted with 19 nurses. Their study focused on nurses’ experiences during blood sample collection. Although they focused on the challenges the nurses experienced, they did not just list the challenges as researchers might do when considering themes as topic summaries. Instead, they included four subthemes that provided details about the frustrations of the nurses, their belief in teamwork to enhance their performance, their feelings about best blood sampling methods, and their thoughts about the skills they had.

**The Coding Reliability Approach**

Unlike the reflexive approach, the coding reliability approach includes aspects of a postpositivist paradigm because it is based on the positivist conception of reliability (Terry et al., 2017). This approach typically requires multiple coders to agree on how the codes need to be applied to accurately analyze the data. Two or more coders need to reach a level of agreement at or above a certain score (often 0.80) for them to be considered reliable coders (Braun et al., 2019). Such an approach is consistent with a postpositivist paradigm because it is designed to reduce researcher bias and produce reliable and objective results (Terry et al., 2017).

Instead of viewing themes as shared meaning-based patterns, researchers using the coding reliability approach frequently think of themes as domain summaries. By doing this, their goal is to use themes to summarize the data in relation to a topic. Some researchers view domain summaries as meaningful conceptualizations of themes, but others regard domain summaries as underdeveloped themes (Braun et al., 2019). One risk of using a domain-summary approach is that it can turn TA into a data reduction process that summarizes the different types of responses across the data rather than uncover implicit meaning that may be beneath the surface (Braun et al., 2019).

Other differences between the reflexive and the coding reliability approaches involve the extent to which each one is deductive. In the reflexive approach, coding involves a process
requiring researchers to use the data to identify meaning. In other words, the researcher starts with the data. In contrast, coding reliability approaches tend to be deductive, mimicking the scientific method through a process that involves gathering evidence related to the themes, which are often predetermined. This means that researchers frequently start with the themes rather than the data (Terry et al., 2017). For instance, Rabie et al. (2020) conducted interviews with 42 participants that were guided by three predetermined themes focusing on knowledge, skills, and attitudes. The participants consisted of nursing educators and nursing students, and the study explored their competencies. In their results, the researchers described different kinds of skills that were classified according to whether they were interpersonal, management, or administrative skills.

Although Rabie et al. (2020) used predetermined themes, they did not indicate that intercoder agreement was used in their study. Thus, their study was similar in a way to the coding reliability approach but did not include one of its most important components. An example of a study that included testing for agreement between the coders focused on the experiences of people living with hepatitis B. Freeland et al. (2021) conducted this study and indicated that in addition to implementing intercoder reliability to ensure coding accuracy, they used a codebook to organize the data.

Codebooks include the list of codes and instructions on applying the codes to the data (Terry et al., 2017). Researchers implementing the coding reliability approach usually use a codebook. Those using a codebook approach to TA also depend on this tool (Braun et al., 2019). The purpose of the codes in the codebook is to label segments of interest in the data in order to identify their analytic relevance (Braun et al., 2016).

Since the coding reliability approach includes components that postpositive researchers implement, it can be considered a mixed methods approach. In fact, Mayring (2022) indicated that an analysis method that includes qualitative and quantitative elements can be regarded as a mixed methods approach. When researchers use numbers to determine coding reliability and then analyze qualitative data, they are combining components of qualitative and quantitative methods to conduct research. Yet some researchers have used the term “qualitative content analysis” to describe a way of analyzing texts using the reliability techniques of postpositive researchers. Schreier (2014), for example, authored a book on how qualitative content analysis can be conducted using coding reliability methods. In addition to discussing such methods, she mentioned that quantitative methods frequently play a role in qualitative content analysis and can do so in several ways. One way involves calculating a percentage of agreement to determine intercoder reliability (ICR). Another way relates to how some researchers use numbers to present their results; for instance, some researchers include coding frequencies for all their categories. Schreier et al. (2019) mentioned that the guidelines for conducting a qualitative content analysis vary according to the authors who have published literature on this topic. They also indicated that qualitative researchers tend to sharply criticize this method of analysis when versions are created for the purpose of combining quantitative and qualitative procedures.

Shannon’s (1954) study is a classic example of an early qualitative content study (Schreier, 2014). This study is about how the editors of a newspaper used the cartoon “Little Orphan Annie” to transmit anti-Roosevelt values. Over 100 weekly comic strips were analyzed. Shannon reported the results by describing how many times Annie’s friends and opponents appeared as well as how many times Annie approved and disapproved of people with certain characteristics. For example, the study indicated that Axel, one of Annie’s opponents, appeared nine times and that Annie condemned lazy, mean people on six occasions. The analysis indicated the types of people and values Annie viewed favorably and the behaviors and kinds of people she considered unworthy (Shannon, 1954).
The Codebook Approach

The codebook approach is somewhat like the coding reliability approach because it involves a structured approach to coding. But it differs in that coding reliability is often not established (Braun et al., 2019). The codebook approach is similar to the reflexive approach in that researcher subjectivity is valued. Thus, it falls somewhere between the coding reliability approach and the reflexive approach regarding the extent to which it is based on a qualitative paradigm (Braun et al., 2019).

To show the degree to which the three approaches are based on qualitative methods, the terms “Big Q” and “small q” are sometimes used (Clarke & Braun, 2018). The reflexive approach is an example of a Big Q approach because it is underpinned by a qualitative paradigm, but the coding reliability approach is consistent with a small q approach because it includes components of postpositivist research. The codebook approach falls between Big Q and small q since it is based on methods in line with both qualitative and postpositivist research (Braun & Clarke, 2022). See Figure 1 for information on the similarities and differences between the three approaches to TA.

Figure 1
Differences Between the Three Schools of TA

Note. The information in this figure is from Braun et al. (2019) and Braun and Clarke (2022).

The codebook approach is similar to the coding reliability approach in other ways than just its emphasis on the use of a structured approach to coding. Like the coding reliability approach, it typically requires the use of predetermined themes that are developed as domain summaries. One advantage of using the codebook approach is that it can allow a group of researchers to analyze data more easily. But using a structured codebook with predetermined
themes in the form of domain summaries is often an obstacle to researchers interested in developing the deepest insights qualitative research can yield (Braun et al., 2019).

Nottingham et al. (2021) conducted a study that included aspects of the codebook approach. Their study focused on investigating the documentation practices of athletic trainers. They used an interview guide established from a previous study to explore this topic. Although they conducted their study with new groups, its purpose was similar to that of a previous study. They used a codebook but did not mention achieving intercoder agreement before analyzing their data, and their themes had the characteristics of domain summaries rather than shared meaning-based patterns. For example, they identified “guidelines for documentation” as a theme, which consisted of a list of factors that guided athletic trainers’ documentation practices. Some of these factors included the regulatory requirements of various organizations, such as insurance companies.

Controversies Involving the Different Types of TA

Researchers need to be aware of the kinds of criticisms they may face for selecting a certain version of TA so that they can make wise decisions on which approach to use. One decision they need to make is whether to choose a fully qualitative or a mixed methods approach. Such a decision can be crucial because it may lead certain researchers to express disapproval. Some researchers criticize qualitative studies for being subjective (Mayring, 2022). Others argue that using quantitative methods to analyze qualitative data limits the insights qualitative studies can yield (Braun et al., 2019).

Objections to Using Mixed Methods Approaches to TA

As previously mentioned, some versions of TA combine aspects of quantitative and qualitative methods together, but critics object to this approach. Sometimes, they question the idea of allowing frequency counts to be associated with meaning, arguing that doing so may remove meaning from its context. Joffe and Yardley (2004) provided an example of how overemphasizing frequency counts could lead to a poor analysis. Their example involves using frequency counts of the word “pain.” Although people may use this word more frequently because they experience more pain, they may mention this word more than others simply because of a strong willingness to talk about this topic. Participants may also mention pain frequently during interviews not because it was a problem but because it was not a concern (Joffe & Yardley, 2004). Counting the number of times participants mention this word, therefore, could lead researchers to misinterpret the meaning the participants intended to express.

When researchers quantify data during a textual analysis, however, they often do not transform single words into numbers. Data analysis may involve using the frequency of the same or similar codes to develop a theme (Vaismoradi & Snelgrove, 2019), but even frequency counts of codes can be misleading. In a study involving interviews on influential events in people’s lives, participants may avoid mentioning tragedies from their past because they remind them of unpleasant times. Thus, in interview transcripts on this topic, a code for tragic events may appear fewer times, although tragic events may have been more influential than other events in the participants’ lives.

The number of participants mentioning a theme also does not indicate whether it is valid. This method does not work for qualitative studies because deciding on the number of participants who need to express a perspective for it to be valid is impossible (Pyett, 2003). Individual cases can be crucial since they can invalidate a theory and require a new one to be developed. Thus, qualitative researchers tend to believe that they need to focus on the quality
of each perspective rather than on the number of participants expressing a point of view (Pyett, 2003).

Several problems can occur when using numbers in a qualitative study. A quick reading of quantitative data may lead researchers to distort the meaning of the data by relying on linear relationships that are mechanically linked together. Numbers can also be included in a study to make it appear more scientific, although they do not play a significant role in the logic of the study (Maxwell, 2010). Such problems do not mean that researchers should always refrain from using numbers in a fully qualitative study. Numbers may be valuable to include with certain data collection techniques, but for a reflexive TA, some scholars suggest using expressions such as “a common theme…” rather than including numbers (Braun & Clarke, 2022).

The numerical measurement of agreement between coders, often implemented to achieve objectivity before an analysis, has been viewed as a controversial practice as well (O’Conner & Joffe, 2020). Some scholars doubt whether a reliability check can indicate that the codes are objective. They argue that one of the researchers can influence the others to examine text fragments the way she or he does, leading all the coders to have the same subjective views (Joffe & Yardley, 2004). Another critique of implementing ICR for qualitative studies relates to the epistemologies with which this type of research is associated. Many qualitative scholars view their area of research as a field comprised of many perspectival realities and do not believe that their role is to search for universal objective facts but to interpret varied perspectives using their expertise (O’Conner & Joffe, 2020). Figure 2 shows some of the reasons researchers may criticize mixed methods studies.

Arguments in Favor of Using Mixed Methods Approaches to TA

Although problems may occur that result from combining qualitative and quantitative methods, some authors support the use of a mixed methods approach to TA. Some qualitative researchers disagree with the idea of using words such as “some” and “many” instead of numbers, claiming that numbers can lead to more precise studies (Maxwell, 2010).

While using numbers instead of words like “many” may not cause much resistance from qualitative researchers, the use of ICR is generally a more contentious topic. Many qualitative researchers oppose this method for the reasons previously mentioned, but some researchers believe that its use can enhance some qualitative studies. For instance, achieving high ICR can convince an audience that the members of a research team have an accurate understanding of the coding frame used for a given study. In some cases, qualitative studies need to be conducted with more than one person. For cross-cultural studies involving the collection of data in many languages, a team of researchers may be needed to analyze the data; a single researcher proficient in all the languages needed to collect and analyze data from the participants may be unavailable. Since the purpose of research is to share it with others, ICR can enhance qualitative research by creating chances for a group of researchers to make the same judgements that one researcher would when she or he cannot work alone. ICR can therefore be a critical component for studies requiring a team of researchers to analyze the results.

By achieving high ICR, researchers can make the findings of qualitative research seem less individualistic. O’Connor and Joffe (2020) mentioned that the findings of qualitative research would be of little value if they applied only to individual studies and that ICR increases the transferability of this type of research. Mayring (2022) indicated that qualitative text analysis is frequently criticized for being subjective because it allows free interpretations resulting from a lack of rules designed to reduce subjectivity. By including tests for interpretation, such as ICR, the subjectivity associated with qualitative text analysis may be reduced. Such tests increase reliability, validity, and objectivity and create strong chances that an analysis will meet quality criteria. By requiring rules and tests for intercoder and intracoder
agreement to reduce free interpretations, even strict advocates of quantitative research might accept the findings of qualitative content analysis (Mayring, 2022). Figure 3 shows some of the reasons researchers may decide to use a mixed methods approach.

The idea that qualitative text analysis is subjective, however, is debatable. Qualitative researchers usually provide evidence for the interpretations they make. This evidence consists of the quotations from the original data the researchers include in their reports (Eldh et al., 2020). By providing this evidence, those who read qualitative studies can decide whether the researchers provided trustworthy conclusions.

**Figure 2**
*Objections to Using Mixed Methods Approaches to TA*

Note. The information in this figure is from Maxwell (2010), O’Conner and Joffe (2020) and Pyett (2003).

**Figure 3**
*Advantages of Implementing a Mixed Methods Approach*

Note. The information in this figure is from Mayring (2022) and O’Conner and Joffe (2020)
As a faculty member for a research university, I have experienced the controversies associated with different types of research. Since I am required to publish research, I must decide whether to conduct qualitative, quantitative, or mixed methods research. Although I favor using a qualitative approach, I have often felt the pressure to include a quantitative component to avoid criticism of conducting subjective research. I have also felt the need to document the harms that an overemphasis on quantitative methods can cause because I am an educational researcher with an understanding of how relying exclusively on statistics contributes to severe problems. For example, after the No Child Left Behind Act was implemented, some school personnel participated in cheating scandals that occurred to a great extent because of this law’s emphasis on holding teachers accountable primarily according to student test scores (Morgan, 2016).

Conclusion

Thematic analysis is a foundational component of qualitative research. Therefore, this method should be one of the first that qualitative researchers learn. To understand how to use this method well, researchers need to be aware that it can be implemented in different ways. Sadly, many researchers have misconceptions about TA and may combine different versions of this method that do not align with each other.

One aspect of TA they need to understand is that each version of this method is associated with controversies. Mixed methods approaches are often criticized because they can distort qualitative data. And well-designed, fully qualitative research is sometimes criticized for being subjective. But this view is debatable because qualitative researchers support their interpretations with evidence consisting of the quotations they include in their reports.

Researchers need to be aware of the debates related to the type of research they conduct and to decide which approach best matches their goals. Although implementing a mixed methods approach is warranted for certain studies, many qualitative researchers believe that the use of statistics and numbers is not necessary and may weaken their research. By understanding how quantitative and postpositivist methods may enhance or weaken qualitative studies, researchers can make the decisions that match their research goals.

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