

# Content Analysis or Thematic Analysis: Doctoral Students' Perceptions of Similarities and Differences

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**Abstract:** This paper is a review of content analysis or thematic analysis which is further explored through the lens of impressions of doctoral students who attended a presentation on the subject. The long tradition of quantitative research still dominates many university courses on research methodology and data analysis. During the 20th century the field of qualitative research has had a growing need for new analysis methods that accommodate qualitative data and two frequently used methods are content analysis and thematic analysis. They have several things in common and sometimes, they have been understood by researchers to be interchangeable. It has been argued by some researchers that conventional content analysis has really the same functional approach to analysing data as an inductive thematic analysis. This study reports on two webinars on qualitative analysis involving doctoral students and facilitated by the authors. The webinars presented, discussed content analysis and thematic analysis, and gathered participants' reflections on these methods using a Padlet (padlet.com). The aim of the study was to analyse and describe doctoral students' perceptions of content analysis and thematic analysis. The data collected has been analysed using conventional content analysis applying an abductive coding approach. The study identifies several perceived similarities and differences between the two methods, but also opportunities and challenges for applying them. Findings highlight that the two methods are perceived to be applicable to different types of research. Furthermore, they offer similar challenges to the researcher including their potential for bias and could be considered a choice between an intuitive and a practical approach to analysis. Many of the identified perceptions can be related to previous literature on content analysis and thematic analysis. However, other perceptions seem to indicate a need for more thorough and nuanced discussions on methods for qualitative analysis. The study suggests that more efforts should be made to support doctoral students in attaining a nuanced understanding of qualitative methods for analysis.

**Keywords:** Content analysis, Thematic analysis, Qualitative analysis, Qualitative research, Nuanced understanding

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## 1. Introduction

There is a long tradition of quantitative research that still has a significant impact on the design of university courses on research methods. The more recent phenomenon of qualitative research could be traced back to the 1920s and the pioneer work by the Austrian-American sociologist, Paul Lazarsfeld (Bailey, 2014). He played an important role for 20th-century empirical sociology, and among many other contributions, he developed new analytical methods (Jeřábek, 2001). After the Second World War, qualitative methods began to be established in research fields such as journalism, sociology, business psychology, communication studies, and anthropology. On the other hand, quantitative methods are still frequently used in these research fields (O'Dwyer & Bernauer, 2013; Grossman & Cohen, 2017), and with an emerging use of combining the two in mixed method approaches (McCusker & Gunaydin, 2015; Bernard, 2017).

There are many different approaches for analysing qualitative data. Some examples of well-established methods for qualitative data analysis are content analysis, thematic analysis, open coding, axial coding, narrative analysis, phenomenological analysis, and discourse analysis (Hsieh & Shannon, 2005; Nowell et al., 2017; Walia, 2015). Unlike open coding and axial coding that are aligned to grounded theory, and phenomenological analysis that is developed for phenomenological studies, content analysis and thematic analysis do not require any specially focused research strategy. This study had a focus on content analysis and thematic analysis, and the comparison of the two. Content analysis and thematic analysis share a common approach to qualitative data analysis, and since they often have been used interchangeably, they can be difficult to distinguish and choose between in research study design. This is especially true for doctoral students and unexperienced researchers in the qualitative field. Therefore, this study focuses on the perceptions of content analysis and thematic analysis by doctoral students after attending a webinar where these two methods were presented, discussed, and applied by the participants.

To get a better understanding of content analysis, this study has made a distinction between Conventional content analysis, Directed content analysis, and Summative content analysis. These three different approaches and their differences and similarities compared to thematic analysis, are seldom explained and discussed in doctoral courses on research methods. It has been argued that the conventional content analysis has the same main approach to analyse data as an inductive thematic analysis. Without knowledge about thematic analysis, the different types of content analysis and the distinction between induction and deduction, doctoral students and unexperienced researchers can find it problematic to distinguish and choose between them.

The overall research question to answer was:

*What are doctoral students' perceptions of content analysis and thematic analysis after participating in a webinar where these two approaches were presented, applied, and discussed?*

## **2. Extended background**

A quantitative content analysis was used as early as in the early 19th century by Thomas Young in the deciphering of the Rosetta Stone hieroglyphs (Larmor, 1934). The first use of a qualitative content analysis that has been documented was in 1893, in a study with the aim of finding patterns in Shakespeare texts (Sumpter, 2001). Thematic analysis is a more recent method for analysis that was more strictly defined by Boyatzis (1998), and by Braun and Clarke (2006). However, thematic analysis had been used earlier in research fields such as psychology, literature, business study, and sociology, but presented in other terms (Boyatzis, 1998).

Thematic analysis has its roots in the older tradition of content analysis, and shares many of the principles and procedures (Joffe, 2012) that originate from a historically quantitative tradition that dates back to the early 20th century within social sciences, and even further back in the humanities (Smith, 2000). In content analysis, as well as in thematic analysis, themes, patterns, and codes should be identified and grouped in mainly two different ways: inductively or deductively (Braun & Clarke, 2006). Using the inductive approach, the identified themes, patterns, or codes emerges from the data, in what could be described as a data driven bottom-up process (Patton, 1990; Braun & Clarke, 2006). This should be compared to the more theory driven deductive approach, where data are analysed in a top-down process using codes chosen earlier (not from the data itself) and supported by theory or previous research (Boyatzis, 1998; Braun & Clarke, 2006).

### **2.1 Content analysis**

The term content analysis includes a continuum of analytic approaches in a wide range, from impressionistic and more intuitive analyses to the side of systematic and structured analyses (Rosengren, 1981). This wide variety makes content analysis useful in many different research fields, with the idea that the type of content analysis to use is depending on the study design, and the actual research aim (Weber, 1990). In a frequently cited article by Hsieh and Shannon (2005), three different types of often used described as Conventional content analysis, Directed content analysis, and Summative content analysis (Table 1).

**Table 1.** Hsieh & Shannon's (2005) summary of three approaches for content analysis

<b>Type of content analysis</b>	<b>Study starts with</b>	<b>Timing of defining codes or keywords</b>	<b>Source of codes or keywords</b>
<i>Conventional content analysis</i>	<i>Observation</i>	<i>Codes are defined during data analysis</i>	<i>Codes are derived from data</i>
<i>Directed content analysis</i>	<i>Theory</i>	<i>Codes are defined before and during data analysis</i>	<i>Codes are derived from theory or relevant research findings</i>
<i>Summative content analysis</i>	<i>Keywords</i>	<i>Keywords are identified before and during data analysis</i>	<i>Keywords are derived from interest of researchers or review of literature</i>

#### **2.1.1 Conventional content analysis**

At several universities this approach is seen as the "standard content analysis". The conventional content analysis is often used in research studies where the aim is to explore a phenomenon with limited theory or previous literature (Hsieh & Shannon, 2005). In the conventional content analysis, the researchers work inductively, and avoid the use of pre-defined categories for the analysis. Instead, they create categories that emerges from the collected data set (Kondracki, Wellman & Amundson, 2002). What is seen as an advantage of the conventional approach is the possibility to directly generate information from informants or documents, without any preconceived theoretical lenses.

In a five-step process described by Hsieh and Shannon (2005), the conventional content analysis could be carried out as: Step 1: Immerse yourself actively into the gathered data, read and reread to get a sense of the whole, Step 2: Create codes by close reading, while highlighting key themes and concepts, Step 3: Label preliminary codes from notes of first impressions that reflect multiple key thoughts that are based directly in the data, Step 4: Create categories and subcategories by sorting and grouping codes into clusters, based on the relationship between the codes, and finally Step 5: Develop and fine-tune definitions for categories and codes with extracts from the data set.

### *2.1.2 Directed content analysis*

In research areas with more previous research and existing theory, qualitative researchers could instead choose the directed content analysis. This is a deductive, top-down and theory driven approach (Potter & Levine-Donnerstein, 1999; Hsieh & Shannon, 2005). The directed content analysis has been frequently used in studies that aim to extend the existing theory and the prior description of phenomena. Furthermore, a selected theory or prior research often guides the presentation and discussion on the outcomes of this analysis approach (Hsieh and Shannon, 2005). The directed content analysis is described as a more structured process, compared to the conventional content analysis (Hickey & Kipping, 1996).

With existing theory or previous research as a theoretical lens, the first step is to decide the key concepts or main variables as initial coding categories (Potter & Levine-Donnerstein, 1999). This is followed up by a second step where the operational definitions for categories are guided by the selected theory. In a third step, data should be coded and organised into the predetermined categories. However, it is rare that all the gathered data fit into the predetermined categories, and as a fourth step other relevant data is highlighted. Finally, this is followed up by a fifth step where the highlighted data are reanalysed and grouped into new emerging categories or sorted as sub-categories to the existing categories (Hsieh and Shannon, 2005).

### *2.1.3 Summative content analysis*

The third approach presented in the article by Hsieh and Shannon (2005), is the summative content analysis. This approach which has a quantitative touch where selected words or content in the data are quantified to better understand the contextual use of the words or content. However, summative content analysis should continue beyond the mere frequency counting. The initial frequency counting to derive keywords could preferably be computer-supported and be carried out with a computer-assisted qualitative data analysis software (CAQDAS) tool (Kaefer, Roper & Sinha, 2015).

Structured as a five-step process, a summative content analysis could be carried out as: Step 1: Create the initial coding scheme based on theory, previous research or data, Step 2: Frequency counting of words, patterns or key concepts, Step 3: Calculate and compare the found frequencies in relation to total length of data and/or to different data sources, Step 4: Identify and quantify alternatives by counting frequencies of the alternatives to what was chosen in Step 2, and finally Step 5: Update the calculation and comparison with the identified alternative words, patterns or concepts. (Hsieh & Shannon, 2005).

## **2.2 Thematic analysis**

Despite the wide use of thematic analysis in research fields such as psychology, the term was during many years poorly demarcated and acknowledged (Braun & Clarke, 2006). After the definitions and thorough descriptions by Boyatzis (1998) and Braun and Clarke (2006), the use of thematic analysis increased rapidly and spread into many other research fields. Of all research articles that were published in 2006, the article by Braun and Clarke has the highest number of citations in Google scholar. Some reasons for the increasingly broad use in various research fields might be the straightforward approach for finding themes that are relevant for the chosen research study design, and the actual research question(s). Thematic analysis can be carried out without any frequency counting, as in content analysis, and enable the idea that large data sets can be used and reused for several separate studies with different research questions.

A six-step process for thematic analysis has been presented by Braun and Clarke (2006). The six phases of this process are 1) Familiarising yourself with your data, involving transcription, immersion and taking notes on initial ideas, 2) Generating initial codes from the data that identify a feature of the data, semantic content or latent, that appears interesting, 3) Searching for the themes by collating codes into preliminary themes, 4) Reviewing themes, and checking if the themes work in relation to codes and data extracts (Level 1) and the entire data set (Level 2), 5) Defining and naming the final themes, and refine the specifics of each theme, and the overall story

the analysis tells, and 6) Writing up the presentation of the found theme and fine-tuning the overall story. (Braun and Clarke, 2006)

There are other defined processes for carrying out thematic analyses, one of them is the seven-stage process presented by Norton (2009). Most stages are similar to the Braun and Clarke process, but categories are created already in Stage 2, and there are two separate stages for deleting potential categories (Stage 3), and another for merging categories (Stage 4). Moreover, Stage 6 highlights the importance of describing the found relations between found themes/categories (Norton, 2009, p. 121). What the variations of a thematic analysis process have in common is that the final result of a thematic analysis should describe the most salient constellations of themes in the analysed dataset (Joffe, 2012).

### **2.3 Deductive and inductive coding**

In the discussion on what differentiates qualitative research from quantitative research, a common notion is that qualitative research is mainly associated with induction while quantitative research is mainly associated with deduction (Bergdahl & Berterö, 2015; Bendassolli, 2013). However, there are no hard lines between qualitative and quantitative research and both traditions have examples of induction and deduction (Kennedy & Thornberg, 2018). As highlighted by Love and Corr (2022), most qualitative analysis is to some extent informed by existing theory or literature. However, one important distinction in qualitative research is the one between the deductive and the inductive approaches. The deductive analysis approach explicitly draws from existing theory or frameworks and is often the choice in research studies that attempt to contextualise and problematise existing knowledge (Ravitch & Riggan, 2012). Existing theory and frameworks could be seen as a start list of codes in deductive analyses of qualitative data sources (Miles, Huberman & Saldaña, 2018).

Another view of deduction is the top-down aspect of a theory-led analysis, where deduction could be described as "a type of reasoning that starts with the general or abstract concept and reasons to specific instances" (Bryant & Charmaz, 2007, p. 608). In an inductive analysis themes or categories emerge progressively from an iterative process of rereading data sources and grouping data into meaningful units (Love & Corr, 2022). The inductive approach is a systematic procedure for analysing qualitative data when the analysis is guided by specific evaluation objectives (Thomas, 2006). This has been recommended for analyses where the studied phenomenon has insufficient or fragmented existing knowledge (Elo & Kyngäs, 2008). Compared to deduction, induction has been described as a bottom-up approach (Braun & Clarke, 2006), and "a type of reasoning that begins with study of a range of individual cases and extrapolates patterns from them to form a conceptual category" (Bryant & Charmaz, 2007, p. 608).

## **3. Method**

A qualitative approach was used in this study to gather information about webinar participants' understandings of, and meanings attached to their encounter with, qualitative analysis through content analysis and thematic analysis (Polkinghorne, 2010). Further, the qualitative approach allows for a deep examination of the participants' perceptions of qualitative analysis with content analysis and thematic analysis (Bryman, 2016, p.32-33; Garcia & Quek, 1997). The qualitative approach has been applied in this study with a pragmatist stance for developing knowledge that is useful and can be applied when conducting quantitative research (Goldkuhl, 2012).

### **3.1 Data collection**

Two webinars for doctoral students interested in methods for qualitative analysis and a total of 76 participated in the webinars during the autumn semester of 2021 and the spring semester of 2022. The first webinar (autumn 2021), targeted an international audience of doctoral students and had 60 participants. The second webinar (spring 2022) targeted a Swedish audience of doctoral students and had 16 participants. Both webinars covered the same topic and included the same information and webinar activities.

The information presented about content analysis during the webinars were mainly based on the works by Hsieh and Shannon (2005), Drisko (2005), and Blair (2015). Information presented about thematic analysis during the webinars were mainly based on the works by Braun and Clarke (Braun & Clarke, 2006; Braun & Clarke, 2012; Braun, Clarke & Hayfield, 2019). During the webinars, participants also got the opportunity to conduct, and discuss, content analysis and thematic analysis on mock-up data in breakout-rooms, with approximately 3-5 participants in each room.

At the end of each webinar, a Padlet (padlet.com) was presented for the participants. A Padlet acts as an online noticeboard where multiple collaborators can post notes and comment on other notes. Webinar participants were asked to reflect on challenges and opportunities with, and differences and similarities between, content analysis and thematic analysis in the Padlet. Participants were informed about the intent to use the Padlet for research and that only those who wanted to participate should partake in the Padlet. To protect the identify of participants, from the authors and the other participants, the Padlet was set to be anonymous (that is, no name was required for posting and commenting in the Padlet) and time was allocated for writing in the Padlet during a break or after the webinar had concluded.

The duration of the first webinar was 2 hours, and the Padlet was presented at the end to allow participants to answer the questions after the webinar, without interferences of the webinar facilitators. The Padlet remained open for about 2 months when data were collected. The duration of the second webinar was 3 hours, and the Padlet was presented before a break of approximately 15 minutes. Participants were also encouraged to engage in the Padlet after the webinar had concluded. The Padlet remained open for about 4 months when data were collected. A consequence of the Padlets being anonymous and time for answering the Padlets were allocated during a break and after the webinars is that the authors have no way of knowing how many of the participants engaged in the Padlets.

### 3.2 Data analysis

To examine the content and meanings expressed in the Padlets, content analysis was used to analyse the collected data. Inspired by what is labelled *conventional content analysis* by Hsieh and Shannon (2005) and an *abductive coding approach* (Graneheim, Lindgren & Lundman, 2017), the analysis was conducted in a number of steps where coding moved between inductive and deductive coding. An advantage of conventional content analysis is further that it does not impose preconceived theory or categories on the collected data but allow for a more direct contact with participants' information. The process of analysis conducted in this study can be described in 3 steps and encompasses 4 practices for content analysis described by Erlingsson and Brysiewicz (2017): familiarise yourself with the data, divide data into units of meaning, formulate codes, and develop categories or themes.

In the first step, the collected reflections in the Padlets were read and re-read for author familiarisation with the data. Through this step, the authors were further able to make an informed decision on whether the collected data were relevant for the intended study, and if the analysis should proceed. After familiarisation with the collected data in the Padlets, authors decided to continue with the study and proceed to the second step of analysis.

The second step of analysis consists of an iterative process of identifying units of meaning, formulating codes, and developing categories through an abductive approach. First, units of meaning were identified in the collected data by relating the posts and comments in the Padlets to the study's aim. Second, when a unit of meaning, relevant to study's aim, was identified in the Padlets it was moved to a spreadsheet document in the form of a code, either in its existing form or condensed into a descriptive label. Third, codes moved into the spreadsheet document were organised in categories where included codes deal with the same issue. Categories were named based on the issues that the included codes addressed. The second step was repeated for each new identified unit of meaning in the collected data. Each new code that was moved into the spreadsheet document either created a category, added to an existing category, or re-organised existing categories.

In the third step, all codes and categories in the spreadsheet document were discussed and revised. This was done for consistency in the presentation of the analysis but also for ensuring equitable representation of the data and the context. As expressed by Hsieh and Shannon (2005): "One challenge of this type of analysis is failing to develop a complete understanding of the context, thus failing to identify key categories. This can result in findings that do not accurately represent the data." To avoid inadequate representation of data and identifying false categories, authors discussed the content of the spreadsheet document (i.e., the codes and categories of the analysis) to ensure that it was consistent with the discussions and workshops that had occurred during the webinars. Codes and categories were also compared and discussed in relation to the source material in the Padlets, to ensure an equitable representation of webinar participants' reflections.

#### 4. Results and analysis

Five categories of webinar participants' perceptions were developed in the analysis. The categories have been grouped as differences between thematic analysis and content analysis, and similarities between thematic analysis and content analysis (Table 2). The categories *deep analysis vs. wide application* and *intuitive approach vs. practical approach* cover perceived differences between thematic analysis and content analysis. The categories *coding process and data analysis*; *subjectivity and potential bias*; and *defining and organising data* cover perceived similarities between thematic analysis and content analysis.

**Table 2:** Categories ordered by differences and similarities

Differences	Similarities
<i>deep analysis vs. wide application</i>	<i>coding process and data analysis</i>
<i>intuitive approach vs. practical approach</i>	<i>subjectivity and potential bias</i>
	<i>defining and organising data</i>

##### 4.1 Differences between thematic analysis and content analysis

The Padlets reflects that webinar participants perceive the choice between deep analysis and wide application to be a difference between thematic analysis and content analysis. If deep understanding is sought for the study, Padlets reflect that thematic analysis is considered an appropriate choice of method. Reflections in the Padlets suggests that this could be because thematic analysis is considered to be a method more purely based in the qualitative tradition (Quote 1). Although, webinar participants' reflections in the Padlets also reflect that they consider thematic analysis to be flexible within the tradition of qualitative research.

*"I am unsure. I had very little knowledge of either before coming into this seminar. However, I feel like thematic analysis may pertain more to qualitative, overarching themes rather than potentially quantitative interpretations of content."*

**Quote 1.** Webinar participant about thematic analysis as more qualitative.

Webinar participants' reflections in the Padlets reflect that they perceive content analysis to have a wider application than thematic analysis. Reflections in the Padlets suggest that this perception could be because of content analysis role as a method in both qualitative and quantitative research. Webinar participants also reflect on the possibilities that content analysis could potentially be a better method than thematic analysis for analysis of larger amounts of data, due to the connection to the quantitative tradition of research (Quote 2).

*"[Opportunity of content analysis is to] Go through larger amount of qual data as it is hard to do thematic analysis on them."*

**Quote 2.** Webinar participant about content analysis for larger amount of data.

Reflections in the Padlets suggest that webinar participants perceive the choice between an intuitive approach and a practical approach for analysis to be a difference between thematic analysis and content analysis. The Padlets reflect that webinar participants perceive thematic analysis to be intuitive in its approach of analysis. Webinar participants reflect in the Padlets that thematic analysis seems to look at data without presumptions and is more oriented towards inductive coding. Further, Padlet reflections suggest that webinar participants perceive thematic analysis to be an easier method for developing researcher to learn (Quote 3).

*"As Braun & Clarke states: a flexible method for qualitative analysis! [Also], fairly quick to learn at a basic level as a developing researcher – a good way of starting your qual-analysis journey!"*

**Quote 3.** Webinar participant about thematic analysis as a quick method to learn.

Webinar participants' reflections in the Padlets reflect that they perceive content analysis to be a practical and straightforward method for analysis. Reflections in the Padlets suggest that webinar participants consider content analysis to provide a fast and structured way of doing analysis, and a predetermined route to follow. However, this is also problematised in the Padlet reflections, implying that content analysis may result in unreflective analysis (Quote 4).

*"[Content analysis has a] Clear epistemology. It seems like you are doing the right thing. You can follow a route of how to do research. I think this is a bit problematic though. But that is rather an ontological standpoint."*

**Quote 4.** Webinar participant about content analysis as a clear route to follow but also problematic.

##### 4.2 Similarities between thematic analysis and content analysis

The Padlets reflect that webinar participants perceive thematic analysis and content analysis to be similar regarding data analysis and the coding process. Reflections in the Padlets suggest that thematic analysis and content analysis both view data as something that can be collected and extracted from the outside world (Quote 5). A first step of familiarising with data is perceived as a similarity between thematic analysis and content analysis in the Padlet reflections. Another perceived similarity between thematic analysis and content analysis in the reflections of the Padlets are the possibilities for both deductive and inductive coding in both methods.

*“Both seem to approach data in the same way (as something out there you collect) and can extract more or less visible traces of what is out there.”*

**Quote 5.** Webinar participant about similar approach to data with thematic analysis and content analysis.

Webinar participants' reflections in the Padlets reflect that they perceive similar challenges for thematic analysis and content analysis with subjectivity and potential bias in conducted research. Reflections in the Padlets suggest that both thematic analysis and content analysis are perceived as at risk for biased reading when conducting analysis. Padlet reflections indicate that this could be because of the interpretation and subjectivity that is involved in conducting qualitative analysis. However, reflections in the Padlets suggest that content analysis could potentially contain approaches that reduce the risk of bias (Quote 6).

*“If a content is sensitive or contains strong stories it can be a way of distancing to it as a researcher, actually decreasing the risk of biases. Smashing it into digestible pieces, so to say. Word counting to identify content of significance is one way of doing this.”*

**Quote 6.** Webinar participant about ways to decrease risk of biases with content analysis.

Reflections in the Padlets suggest that webinar participants perceive similar challenges for thematic analysis and content analysis with defining and organisation data in conducting the analyses. The Padlets reflect that webinar participants consider defining and differentiating codes, themes, categories and sub-categories to a challenge in both thematic analysis and content analysis (Quote 7). Another perceived challenge that is reflected in the Padlets is how to manage the potential large number of codes, themes, and categories that will be the result of both thematic analysis and content analysis. How do you distinguish between them? What do you do if they overlap? Reflections in the Padlets further indicate that webinar participants perceive a risk for coding to much when conducting the analysis, and that it is important to be mindful of the research question to prevent this.

*“As with content analysis, there can be challenges differentiating between themes, categories, sub-categories and codes. Also both types of analysis require some subjectivity.”*

**Quote 7.** Webinar participant about the challenge of differentiating between different units in the analysis.

## 5. Discussion

Much of the highlighted similarities and differences between content analysis and thematic analysis does not come as surprises. That the coding process and approach to data analysis are perceived as similar. The same should be concluded if a conventional content analysis is compared to inductive thematic analysis. However, compared to grounded theory where there is a resemblance to thematic analysis in the analysis process, thematic analysis does not have the goal of generating a theory. Both content analysis and thematic analysis can be used in a wide variety of research fields, as well as in interdisciplinary research teams, while a phenomenological analysis is better applied in phenomenology. As for the perceptions that both content analysis and thematic analysis have similar challenges regarding subjectivity, potential biases, and defining and organising data. Challenges that content analysis and thematic analysis share with most methods for data analysis.

The highlighted perception in the results and analysis-section about deep analysis vs. wide application, where thematic analysis is perceived as appropriate for deep analysis while content analysis is perceived to have a wider application, could potentially be explained by how the two methods were presented during the webinars. Thematic analysis was presented as a qualitative approach (Braun & Clarke, 2006), while content analysis was presented with an origin in quantitative research. From this, it is possible that participants concluded that content analysis has a wider application because of connections to both quantitative and qualitative research traditions. However, in the webinars, efforts were made to balance these perceptions. Boyatzis (1998) idea for transforming qualitative data into a quantitative form for carrying out further statistical analyses, was presented in relation to thematic analysis. Transformation in the reversed order, from quantitative to qualitative, was

described in the presentation of the summative content analysis. However, this should be elaborated in future webinars to stimulate a richer discussion on the many different applications of both content analysis and thematic analysis in research.

Regarding perceptions that thematic analysis is considered a more intuitive approach, oriented towards induction, while content analysis is considered a more practical approach, with a predesigned route for analysis. This could be explained by how the methods were presented during the webinars: thematic analysis in the qualitative tradition and content analysis in both qualitative and quantitative research traditions. Inductive analyses are often associated with qualitative research, while theory-driven analyses, or deductive analyses, are often associated with quantitative research. Further, the presentation of thematic analysis during the webinars contained a workshop activity to conduct an inductive thematic analysis, which could also explain the perceptions. However, the idea of thematic analysis as mainly an inductive approach does not align with what was intended during the webinars. As stated by Braun and Clarke (2012, p 58):

*"In reality, coding and analysis often uses a combination of both approaches. It is impossible to be purely inductive, as we always bring something to the data when we analyze it, and we rarely completely ignore the semantic content of the data when we code for a particular theoretical construct"*

Braun and Clarke (2012, p.58) further posit that there are three main continua for qualitative research, where the first consists of induction versus deduction, and that thematic analysis has the potential of containing all three. During the webinars, the intention was to present thematic analysis with a width of approaches for qualitative analysis and the dual choice of induction and deduction. Still, an extended discussion on induction versus deduction should be added for future webinars to clarify this. If possible, future webinars should also contain rich variations of workshop activities, including both inductive and deductive analyses for both thematic analysis and content analysis. It would further be desirable to add and discuss the concept of abduction in relation to coding approaches for analyses.

Another possible extension for the webinars could be to involve the two other analysis continua presented by Braun and Clarke (2012), the experiential versus the critical orientation to data; and an essentialist versus a constructionist theoretical perspective in thematic analysis. According to Braun and Clarke (2012, p.59), thematic analysis with a deductive approach is often constructionist in the theoretical perspective and critical in orientation to data, while an inductive approach in thematic analysis relates more to the other ends of the continua. However, thematic analysis and content analysis also holds the potential of being approaches where constructivists, positivists and pragmatist could work together without ontological discussions.

An interesting point for more discussion is when and how to apply either content analysis or thematic analysis in qualitative research. As depicted in related literature, there is a tendency to favour qualitative content analysis over thematic analysis when analysing document data or applying quantification of themes and categories in the analysis (Bryman, 2016; Vaismoradi, Turunen & Bondas, 2013). However, these assumptions can be challenged with the support of literature describing the wide application of thematic analysis, and the move into statistical analysis). The question then arises, should these assumptions or practices surrounding content analysis and thematic analysis for qualitative research be enforced in how they are presented to doctoral students? Or should they be problematised or even challenged? For researchers, and aspiring researchers, the answer might seem obvious. However, considering that problematising and challenging traditions is time-consuming and not necessarily will forward an academic career, is this something to instil in doctoral students early on, or for them to discover by themselves?

## **6. Conclusion**

This study reviewed content analysis or thematic analysis. It analysed and described doctoral students' perceptions of qualitative analysis with content analysis and thematic analysis. The analysis showed that doctoral students perceive both differences and similarities between the two methods, and also challenges and opportunities. Many of the identified perceptions can be observed in previous literature. However, other identified perceptions could be considered overly simplified and potentially problematic for a future research career. For example, that thematic analysis is considered more oriented towards induction and deep analysis, while content analysis is considered more practical and with wider application.

This could partly be explained by how the two methods for analysis were presented during the webinars. Although, as described in the discussion section, efforts were made to present a varied use of both methods. However, it could also be seen as a need for more thoroughly presenting and discussing methods for qualitative analysis as a part of doctoral studies. This discussion should apply a nuanced perspective of methods for qualitative analysis and highlight the many different applications that each method has to offer. This would be an important next step for the authors, updating and revising the webinars on qualitative data analysis.

## References

- Bailey, L. F. (2014). The origin and success of qualitative research. *International Journal of Market Research*, 56(2), 167-184.
- Bendassolli, P. F. (2013, January). Theory building in qualitative research: Reconsidering the problem of induction. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* (Vol. 14, No. 1).
- Bergdahl, E., & Berterö, C. M. (2015). The myth of induction in qualitative nursing research. *Nursing Philosophy*, 16(2), 110-120.
- Bernard, H. R. (2017). *Research methods in anthropology: Qualitative and quantitative approaches*. Rowman & Littlefield.
- Blair, E. (2015). A reflexive exploration of two qualitative data coding techniques. *Journal of Methods and Measurement in the Social Sciences*, 6(1), 14-29.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. sage.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Braun, V., & Clarke, V. (2012). Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbook of research methods in psychology, Vol. 2. Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57–71). American Psychological Association. <https://doi.org/10.1037/13620-004>
- Braun, V., Clarke, V., and Hayfield, N. (2022). 'A starting point for your journey, not a map': Nikki Hayfield in conversation with Virginia Braun and Victoria Clarke about thematic analysis. *Qualitative Research in Psychology*, 19(2), 424-445.
- Bryant, A. and Charmaz, K. (Eds.). (2007). *The Sage handbook of grounded theory*. Sage.
- Bryman, A. (2016). *Social research methods*. Oxford university press.
- Daly, J., Kellehear, A. and Gliksman, M. (1997). *The public health researcher: A methodological guide*. Oxford University Press.
- Drisko, J. W. (2005). Writing up qualitative research. *Families in Society*, 86(4), 589-593.
- Elo, S. and Kyngäs, H. (2008). The qualitative content analysis process. *Journal of advanced nursing*, 62(1), pp.107-115.
- Erlingsson, C., and Brysiewicz, P. (2017). A hands-on guide to doing content analysis. *African journal of emergency medicine*, 7(3), 93-99.
- Garcia, L., and Quek, F. (1997). Qualitative research in information systems: time to be subjective?. In *Information systems and qualitative research* (pp. 444-465). Springer, Boston, MA.
- Goldkuhl, G. (2012). Pragmatism vs interpretivism in qualitative information systems research. *European journal of information systems*, 21(2), 135-146.
- Graneheim, U. H., Lindgren, B. M., & Lundman, B. (2017). Methodological challenges in qualitative content analysis: A discussion paper. *Nurse education today*, 56, 29-34.
- Grossman, S., & Cohen, A. (2017). Contributions to a gestalt quantitative research tradition: Establishing the Gestalt mental status exam. *Gestalt Journal of Australia and New Zealand*, 13(2), 29-44.
- Hayes, N., 1997. Theory-led thematic analysis: social identification in small companies. In *Doing qualitative analysis in psychology* (pp. 93-114). Psychology Press.
- Hickey, G. and Kipping, C. (1996). A multi-stage approach to the coding of data from open-ended questions. *Nurse researcher*, 4(1), pp.81-91.
- Holsti, O. R. (1969). *Content analysis for the social sciences and humanities*. Reading, MA: Addison-Wesley
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research*, 15(9), 1277-1288.
- Jeřábek, H. (2001). Paul Lazarsfeld—The founder of modern empirical sociology: A research biography. *International Journal of Public Opinion Research*, 13(3), 229-244.
- Joffe, H. (2012). Thematic analysis. *Qualitative research methods in mental health and psychotherapy*, 1, pp.210-223.
- Kaefer, F., Roper, J. and Sinha, P.N., 2015. A software-assisted qualitative content analysis of news articles: Examples and reflections. *Forum: Qualitative Social Research*, 16(2).
- Kennedy, B. L., & Thornberg, R. (2018). Deduction, induction, and abduction. *The SAGE handbook of qualitative data collection*, 49-64.
- Kondracki, N. L., Wellman, N. S., & Amundson, D. R. (2002). Content analysis: Review of methods and their applications in nutrition education. *Journal of nutrition education and behavior*, 34(4), 224-230.
- Larmor, J. (1934). Thomas Young. *Nature*, 133(3356), 276-279.
- Love, H.R. and Corr, C. (2022). Integrating without quantizing: two examples of deductive analysis strategies within qualitatively driven mixed methods research. *Journal of Mixed Methods Research*, 16(1), pp.64-87.
- McCusker, K., & Gunaydin, S. (2015). Research using qualitative, quantitative or mixed methods and choice based on the research. *Perfusion*, 30(7), 537-542.
- McLeod, J. (2001). *Qualitative research in counselling and psychotherapy*. Sage.

- Miles, M.B., Huberman, A.M. and Saldaña, J. (2018). *Qualitative data analysis: A methods sourcebook*. Sage publications.
- Norton, L. (2009). *Action research in teaching and learning: A practical guide to conducting pedagogical research in universities*. Routledge.
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International journal of qualitative methods*, 16(1)
- O'Dwyer, L. M., & Bernauer, J. A. (2013). *Quantitative research for the qualitative researcher*. SAGE publications.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. SAGE Publications, inc.
- Polkinghorne, D. E. (2010). Qualitative research. In *Handbook of clinical psychology competencies*.
- Potter, W. J., & Levine-Donnerstein, D. (1999). Rethinking validity and reliability in content analysis.
- Ravitch, S.M. and Riggan, M., (2012). Conceptual frameworks and the analysis of data. *Reason & rigor: How conceptual frameworks guide research*, pp.81-106.
- Roller, M. R. (2019). A quality approach to qualitative content analysis: Similarities and differences compared to other qualitative methods. SSOAR-Social Science Open Access Repository.
- Rosengren, K. E. (1981). Advances in Scandinavia content analysis: An introduction. *Advances in content analysis*, 9, 9-19.
- Roulston, K. (2001). Data analysis and 'theorizing as ideology'. *Qualitative research*, 1(3), pp.279-302.
- Smith, C.P. (2000). Content analysis and narrative analysis. *Handbook of research methods in social and personality psychology*, 2000, pp.313-335.
- Sumpter, R. S. (2001). News about news: John G. Speed and the first newspaper content analysis. *Journalism History*, 27(2), 64-72.
- Thomas, D.R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American journal of evaluation*, 27(2), pp.237-246.
- Thorne, S. (2000). Data analysis in qualitative research. *Evidence-based nursing*, 3(3), 68-70.
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & health sciences*, 15(3), 398-405.
- Walia, R. (2015). A saga of qualitative research. *Social Crimonol*, 5(2), 124.
- Weber, R.P., (1990). *Basic content analysis* (Vol. 49). Sage.