

A Meta Synthesis of Content Analysis Approaches

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Abstract The present analyzing is an attempt to Meta synthesis of content analysis method. The content analysis method was collected by the journals like as “The qualitative Report, Google Scholar and JSTOR”. The sample consists of literature reviews based on content analysis method. Every reviews detail was noted. The reviews responses were in a synthesis. The synthesis refers information about content analysis method. Therefore the investigators categorized the content analysis method reviews. A synthesis of content analysis method review is formed in conclusion and finalizing the common approach of content analysis.

Keywords: *content analysis, approach of content analysis, meta-synthesis*

Cite This Article: G. Manimozhi, and P. Srinivasan, “A Meta Synthesis of Content Analysis Approaches.” *American Journal of Educational Research*, vol. 6, no. 6 (2018): 632-637. doi: 10.12691/education-6-6-8.

1. Introduction

Systematic reviewing and meta-analysis of the quantitative research indication has extended from the health disciplines into other disciplines. In the social sciences, synthesis is a better descriptor of the process for qualitative research and the term meta-synthesis is used to make a distinction this from quantitative meta-analysis. Meta synthesis may also be used to integrate the findings from quantitative and qualitative studies.

There have been large reviews of the literature on information seeking, but these, like the successive reviews in The Qualitative Report, JSTOR, and Google Scholar are generally narrative literature reviews, with some elements of mapping reviews. Compared to systematic reviews, such reviews often lack details about the search process and quality assessment.

Unfortunately, systematic reviews, meta-analysis and meta-synthesis require much time and efforts to produce a conclusion and the needs of the viewers have to be considered. Academic researchers wish to learn about research questions and research strategy. Researchers need to learn about common themes in studies of the Content analysis method.

2. Back Ground of the Study

Content analysis is a time consuming method. Analysis was done manually, or slow mainframe computers were used to analyze punch cards containing data punched in by human coders.

Human error and time constraints made this method impractical for large texts. However, despite its impracticality, content analysis was already an often utilized research method by the 1940's. Although initially limited to studies that examined texts for the frequency of the

occurrence of identified terms (word counts), by the mid-1950's researchers were already starting to consider the need for more sophisticated methods of analysis, focusing on concepts rather than simply words, and on semantic relationships rather than just presence [18].

At the same time as both conduct still continue today, content analysis now is also utilize to explore psychological models, and their linguistic, affective, cognitive, social, cultural and historical significance.

Now a day's more than Software provides tools to assist with qualitative research such as transcription analysis, coding and text interpretation, recursive abstraction, content analysis, discourse analysis, and grounded theory methodology.

Nvivo, ATLAS.ti, QDA Miner, MAXQDA, Hyper RESEARCH, web QDA, XSight, Focuss On, Raven's Eye, Annotations, f4analyse, Dedoose, Quirkos, Qiqqa, Datagrav, SaturateApp are some of the top Qualitative Data Analysis Software.

“Content analysis as a research method is a systematic and objective means of recitation and quantifying phenomena” [11]. It is also known as a method of analysing documents.

Content Analysis is a method that may be used with either qualitative (or) quantitative data; furthermore, it may be used in an inductive (or) deductive way. “An approach based on inductive data moves from the specific to the general, so that particular instances are observed and then combined in to a larger whole (or) general statement” [5].

“A deductive approach is based on an earlier theory or model and therefore it moves from the general to specific” [3].

According to [8] qualitative content analysis as “a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns”.

Content analysis as [2] “a research technique for' the objective, systematic and quantitative description of the manifest content of communication.”

According to [19] equates content analysis with scientific measurement as well, specifically, with “any systematic reduction of text (or other symbol) to a standard set of statistically manipulable symbols representing the presence, the intensity, or the frequency of some characteristics relevant to social science.”

Content analysis is a phase of information-processing in which transportation content is transformed, all the way through objective and methodical application of categorization rules, into data that can be summarized and compared [16].

Content analysis, while definitely a method of analysis, is more than that. It is a process of inspection. Instead of observing people's behaviour directly, or asking them to respond to scales, or interviewing them, the investigator takes the communications that people have produced and asks questions of the communications [10].

From the definitions that mentioned above one can draw several common points. According to these definitions there are four key points:

- Scientific measurement
- Systematic classification process
- Identifying themes
- Summarizing the data.

Content analysis based two general categories, such as conceptual analysis and relational analysis. Conceptual analysis can be reflection of as establishing the survival and frequency of concepts most often represented by words or phrases in a text. Relational analysis is also types of content analysis where the concepts originate in the text are additional analyzed by how they relate to each other.

Based on this, definition of content analysis would be: content analysis is the use of summarizing the data to generate the new themes or ideas about the data.

Researchers on the other hand have find types of content analysis approach and categories. This research paper compares ten content analysis methodology studies using meta-synthesis approach and identified the common approaches based content analysis and find the categories of the studies.

This paper is organized as follows:

- Describe content analysis approach
- Content analysis approach followed by analysis of the studies
- Comparative analysis of content analysis method studies using meta-synthesis approach is performed.
- This paper concludes by summarizing the key points.

3. Content Analysis Approach

Qualitative content analysis involves a procedure designed to concentrate raw data into categories or themes based on valid suggestion and explanation. This process uses inductive analysis, by which themes and categories emerge from the data through the researcher's careful examination and constant evaluation. But qualitative content analysis does not need to exclude deductive reasoning [17]. Generating concepts or variables from theory or previous studies is also very useful for qualitative research, especially at the beginning of data analysis.

3.1. Hsieh and Shannon (2005) Approach.

Discussed three approaches to qualitative content analysis, based on the degree of involvement of inductive reasoning. The first is conventional qualitative content analysis, in which coding categories are derived directly and inductively from the raw data or the study starts with the observation. This is the approach used for grounded theory development.

The second approach is directed content analysis, in which initial coding starts with a theory or related research findings. Then, during data analysis, the researchers immerse themselves in the data and allow themes to emerge from the data. The purpose of this approach usually is to validate or make longer a theoretical framework or theory.

The third approach is summative content analysis, which starts with the counting of words or manifest content, then extends the analysis to include latent meanings and themes. This approach seems quantitative in the early stages, but its goal is to discover the usage of the words/indicators in an inductive manner.

3.2. Kathleen Carley (1990) Approach

Author [4] divided into three categories such as Conceptual analysis, Procedural analysis and relational analysis. Conceptual analysis is an extracting what concepts are explicitly or implicitly present in the text. Procedural analysis is on extracting the procedures that the author of the text uses to perform some task. Relational analysis is on extracting the mental model implicit in the text.

4. Content Analysis Approach Followed by Analysis of the Studies

The following studies on content analysis are given in narrative style. The style will be follows as author name, year, title, objectives, method, sample and sampling techniques, tool, and findings respectively.

Examined [22], the Assessing Coverage of Maslow's Theory in Educational Psychology Textbooks. The study based the research question such as

- How many of the textbooks covered Maslow's theory?
- How many textbooks covering Maslow's theory pages were devoted to it?

The sample consists of eighteen educational psychology textbooks were selected for analysis. The results reveal that a primary concern is the inaccuracy in the presentation and a secondary concern is the minimal attempt to apply the theory meaningfully to educational contexts. This article measured by implicit concept analysis According to [4] “implicit concepts are words or phrases that occur in the text only by implication” from the definition this article approached by conceptual. [8] approach this study tends to summative approach, such as summative approach starts with key words.

Examined [20], a content analysis of LGBTQ qualitative research in Counselling: A Ten-Year Review. The study based on the research question such as,

- √ Review the focus of qualitative research and its applications to LGBTQ research in counselling.
- √ Provide a content analysis of the qualitative LGBTQ studies over the last decade.
- √ Generate suggestions for future empirical work in this area.

The sample consists of LGBTQ-focused qualitative articles reported in JCD, JCP JLGBTIC, and TCP from 1998 through May of 2008. Hsieh and Shannon words this article based on summative approach, because this article starts with the LGBTQ key word. From carley this article tends to explicit concept of analysis, such as According to (4) explicit concepts are words or phrases that actually occur in the text.

From, (12) *Selecting ELL Textbooks: A Content Analysis of Language-Teaching Models*. The research questions based on,

- √ To what extent do middle school ELL texts depict frequency and variation of language teaching models in illustrations and written texts?

The sample consists of 64 ELL texts used in eight middle school classrooms. 33 were chosen as appropriate for the study based upon their scope. This study based on linguistic content analysis. Linguistic content analysis ((14), (9), and (6)) is concerned with the empirical analysis of syntactic information. "Linguistic content analysis techniques typically take the text and analyze it one clause in a text and determines its numeric equivalent of their clause-type" (4).

According to (4) relational analysis goes conceptual analysis in that it focuses both on what concepts is present in the text and on the relation between those concepts. From the above definition Linguistic content analysis is also one of the Relational analyses. Because the above study based on the Language teaching model concept and then revealed that relationship between language teaching models in ELL textbooks. From (8) the above study starts with the keywords "Language teaching model", so the study based on the summative content analysis.

Explained (1), *Content Analysis of Social Studies and Natural Sciences of Secondary School Based on Emotional Intelligence Components*. The research questions based on,

- √ To what extent are the EI components considered in the illustrations of the Social Studies and Natural Sciences textbooks?
- √ To what extent are the EI components considered in the content and lessons of the Social Studies and Natural Sciences textbooks?
- √ To what extent are the EI components considered in the exercises of the Social Studies and Natural Sciences textbooks?

The sample consists of secondary school in the first, the second and the third grades 2012/2013. The above study also based on the EI concepts and compares the relationships between EI components in first, second and third grade school books. This study based on EI component keywords, such as this study based summative approach from (8) this study based on summative approach.

Examined (21), *the multiple intelligence theory and Iranian Text books: An analysis*. The research questions based on,

- √ To analyze locally- published ELT textbooks taught in Iranian state guidance school educational system to determine to what extent MI theory is reflected in these textbooks.

The sample consists of three textbooks (grade 1.2.3) used in guidance school of Iranian educational system were analyzed using MI checklists developed by Botelho and Mariodo Rozarioand. The above study also based on relational analysis from (4). The study based on directed approach.

Examined (15), *the Portrayal of Intelligence in Introductory Educational Psychology Textbooks*. The research question based on

- √ How is intelligence defined as a malleable or fixed entity in introductory educational psychology textbooks?
- √ To what extent are classroom applications of intelligence topics included in the textbooks?

The sample consists of 11 current introductory educational psychology textbooks. The above study based on the concept portrayal intelligence and finally comparing the intelligent concepts in all text books. So the study based on relational analysis from (4). From (8) this study starts with the theory, so the study based on directed approach.

Examined (13), *the Moral Education Trends over 40 Years: A Content Analysis of the "Journal of Moral Education"*. The research question based on

- √ To what extent have disciplinary approaches and sub-disciplinary approaches been represented in JME?
- √ To what extent have particular topics been represented in JME?
- √ What issues and trends in moral education have been addressed by JME special issues and why?
- √ To what extent have different research methods and methodologies been represented in JME?
- √ To what extent have different age-related educational levels been represented in JME?

The sample consists of 40 years of published papers and reviewing supporting documentation on the management of the journal. This study based on conceptual analysis from (4). Such as from (8) this study based on the observation related "moral education journal". So this study comes with conventional approach.

Examined (7), *Accurately Do Introductory Psychology Textbooks Present Psychoanalytic Theory*. The research questions based on

- √ Material on Freud or other prominent psychoanalytic theorists, from early theorists such as Jung and Horney to more recent writers such as Kohut, Mitchell, McWil- liams, and Westen;
- √ Material on core psychoanalytic terms and concepts such as defence mechanisms, ego structures, object relations, psychosexual development, and transference.
- √ Material on psychoanalysis in theory or practice.
- √ Material on psychodynamic therapies.

The sample consists of 8 introductory psychology textbooks. This study based on relational analysis from (4). From (8) this study starts with theory, so this study based on directed approach from (8).

Table 1. Content Analysis Approach

Authors	Title	objectives	Sample size	Content approach
Winger and Norman.(2010)	Assessing Coverage of Maslow's Theory in Educational Psychology Textbooks: A content Analysis	<ul style="list-style-type: none"> √ How many of the textbooks covered Maslow's theory? √ How many textbooks covering Maslow's theory pages were devoted to it? √ Whether the definition of each need was consistent with how Maslow defined them? 	18 Educational Psychology Text books.	Relational /Summative
Singh and Shelton(2011)	A Content Analysis of LGBTQ Qualitative Research in Counselling: A Ten-Year Review	<ul style="list-style-type: none"> √ Review the focus of qualitative research and its applications to LGBTQ research in counselling. √ Provide a content analysis of the qualitative LGBTQ studies over the last decade. √ Generate suggestions for future empirical work in this area. 	LGBTQ-focused qualitative articles reported in JCD, JCP JLGBTIC, and TCP from 1998 through May of 2008	Conceptual/Summative
LaBelle (2011)	Selecting ELL Textbooks: A Content Analysis of Language-Teaching Models	<ul style="list-style-type: none"> √ To what extent do middle school ELL texts depict frequency and variation of language teaching models in illustrations and written texts? 	64 ELL texts used in eight middle school classrooms. 33 were chosen as appropriate for the study based upon their scope.	Relational/Summative
Babaei and abdi (2014)	Content Analysis of Social Studies and Natural Sciences of Secondary School Based on Emotional Intelligence Components	<ul style="list-style-type: none"> √ To what extent are the EI components considered in the illustrations of the Social Studies and Natural Sciences textbooks? √ To what extent are the EI components considered in the content and lessons of the Social Studies and Natural Sciences textbooks? √ To what extent are the EI components considered in the exercises of the Social Studies and Natural Sciences textbooks? 	Secondary school in the first, the second and the third grades 2012/2013.	Relational/Summative
Taase (2012)	The multiple intelligence theory and Iranian Text books: An analysis	To analyze locally- published ELT textbooks taught in Iranian state guidance school educational system to determine to what extent MI theory is reflected in these textbooks.	The sample consists of three textbooks (grade 1.2.3) used in guidance school of Iranian educational system were analyzed using MI checklists developed by Botelho, Mario do Rozarioand.	Relational/Directed
Lusk and Jones (2011)	The Portrayal of Intelligence in Introductory Educational Psychology Textbooks.	<ul style="list-style-type: none"> √ How is intelligence defined as a malleable or fixed entity in introductory educational psychology textbooks? √ To what extent are classroom applications of intelligence topics included in the textbooks? 	11 current introductory educational psychology textbooks.	Relational/Directed
Lee and Taylor (2013)	Moral Education Trends over 40 Years: A Content Analysis of the "Journal of Moral Education"	<ul style="list-style-type: none"> √ To what extent have disciplinary approaches and sub-disciplinary approaches been represented in JME? √ To what extent have particular topics been represented in JME? √ What issues and trends in moral education have been addressed by JME special issues and why? √ To what extent have different research methods and methodologies been represented in JME? √ To what extent have different age-related educational levels been represented in JME? 	The sample consist of 40 years of published papers and reviewing supporting documentation on the management of the journal	Conceptual/ Conventional
Habarth, Hansell & Grove (2011)	Accurately Do Introductory Psychology Textbooks Present Psychoanalytic Theory?	<ul style="list-style-type: none"> √ Material on Freud or other prominent psychoanalytic theorists, from early theorists such as Jung and Horney to more recent writers such as Kohut, Mitchell, McWil- liams, and Westen; √ Material on core psychoanalytic terms and concepts such as defense mechanisms, ego structures, object relations, psychosexual development, and transference. √ Material on psychoanalysis in theory or practice. √ Material on psychodynamic therapies. 	The sample of 8 introductory psychology textbooks	Relational/ Summative

5. Comparative Analysis of Content Analysis Method Studies.

In order to compare the content analysis method, a qualitative meta-synthesis approach is used. This method

has been used by several authors to make a comparison of content analysis approach studies.

(8) make qualitative research of three content analysis approach. However, he merged into one common model illustrated in Table 2. According to this type there are three approaches of content analysis.

Table 2. Common Frame of Reference for Content Analysis Approaches. Source: (Hsieh and Shannon (2005))

Type of content analysis	Study starts with	Timing of defined codes or words	Source of codes or words
Conventional content analysis	Observation	Codes are defined during data analysis	Codes are derived from data
Directed content analysis	Theory	Codes are defined before and during data analysis	Codes are derived from theory or relevant research findings
Summative content analysis	Keywords	Keywords are defined before and during data analysis	Keywords are derived from interest of researchers or review of related literature.

Make (4), Content analysis approaches. However, he merged into one common model illustrated in Table 3. According to this type there are four approaches of content analysis.

Table 3. A Common Frame of Reference for Content Analysis Approaches. Source: (K.Carley, 1990)

Conceptual analysis	Procedural analysis	Relational analysis	Emotional analysis
<p>a. Extraction of explicit concepts – words or phrases actually occur in the text.</p> <p>b. Extraction of implicit concepts- words or phrases occur in the text by implication.</p>	<p>a. Decision-based: texts of a single actor engaged in a task.</p> <p>b. Plot-based: articles, books or stories and focuses on the story or plot.</p>	<p>a. Affect extraction: Emotional evaluation of the text based on the relationship between concepts that are explicitly present in the text.</p> <p>b. Proximity analysis: concerned with the co-occurrence of explicit concepts in text.</p> <p>c. Cognitive mapping: involves extracting from text and then representing, the “mental model” or “cognitive structure” that individuals at one time had in their memory. Cognitive mapping three techniques,</p> <ul style="list-style-type: none"> i. Linguistic content analysis ii. Decision maps iii. Mental model extraction 	<p>particular problems in the analysis of texts.</p>

This study makes an analysis using meta-synthesis method and comes up with the similarities and difference between the studies.

Table 4. Meta Synthesis of Content Analysis Approach Studies Based (4)

Studies	Conceptual	Procedural	Relational	Emotional
Winger & Norman (2010)			☆	
Singh and Shelton ()	☆			
LaBelle ()			☆	
Babehi and bdi ()			☆	
Taase (2012)			☆	
Lusk and Jones (2011)			☆	
Lee and Taylor (2013)	☆			
Habarth, Hansell & Grove (2011)			☆	

Table 5. Meta Synthesis of Content Analysis Approach Studies Based (8)

Studies	Conventional	Directed	Summative
Winger & Norman (2010)			☆
Singh and Shelton ()			☆
LaBelle ()			☆
Babehi and bdi ()			☆
Taase (2012)		☆	
Lusk and Jones (2011)		☆	
Lee and Taylor (2013)	☆		
Habarth, Hansell & Grove (2011)			☆

6. Conclusion of Content Analysis Approach

Reviewing the approaches, it is very clear that most of the phases are more or less similar, with a few exceptions. First, all the approaches start from a stage which is an identifying a concepts. In this study researchers decided that the content analysis approach mostly used the two types of approach such as conceptual and relational. The first approach conceptual analysis based on the steps such as,

- √ Level of study.
- √ Frequency of concepts code
- √ Make a decision whether to code for continuation or occurrence of a conception.
- √ Discriminate among concepts
- √ Follow the rules for coding text
- √ Code the texts
- √ Analyze the results.

The second approach relational analysis based on the steps such as,

- √ Classify the problem
- √ Choose a sample
- √ Decide the type of analysis
- √ Diminish the text relevant to categories.
- √ Investigate the connection between concepts
- √ Code the dimensions.
- √ Carry out statistical analyses
- √ Present the illustration.

Compare the synthesis approach most of the studies based on above stages. From above stages studies based conceptual and relational analysis. Content analysis based on text. The text analyzes analyzed by concepts (conceptual analysis) and finally compare the relationship between the concepts (relational analysis). Finally the study revealed most of the content analysis approach based on the two types.

The purpose of this study was to make an analysis of the content analysis approach by using a meta-synthesis approach. The results of the study show that no matter how much on try to aggregate different approaches of content analysis method such as Conventional, directed, summative, conceptual, procedural, relational and emotional of content analysis have different steps unique to that perspective. As (8) states himself: single study does not have to go through all the steps. The same stages apply to use different perspectives into an approach. It is difficult to come up with stages that will explain all the phases of content analysis approaches from different perspectives.

Some of the contributions this study has identified are as follows:

- √ Common elements of different content analysis approach definitions.
- √ Common elements of content analysis approaches.
- √ Most of the content analysis approaches have similar stages for the early content analysis approaches stages

however they differ on what constitutes later stages of content analysis approach.

- √ Similarity of content analysis approaches with common stages of qualitative research.

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