Using Generic Inductive Approach in Qualitative Educational Research: A Case Study Analysis

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Abstract

Qualitative research strategy has been widely adopted by educational researchers in order to improve the quality of their empirical studies. This paper aims to introduce a generic inductive approach, pragmatic and flexible in qualitative theoretical support, by describing its application in a study of non-English major undergraduates' English learning transition from school to university in China. Through an analysis of how this case study was conducted, the main features of the generic inductive approach are discussed in detail. Subsequently, some suggestions for its effective use are put forward so that this approach can help to provide meaningful interpretive power to make sense of the findings in educational research.

Keywords: generic inductive approach, qualitative research, English learning transition, university

1. Introduction to Generic Inductive Approach

Generic inductive approach is a qualitative research approach only identified within the past decade, and has not been extensively discussed in the relevant literature although some scholars have described it (Maxwell, 2005; Silverman, 2005). However, it has become a growing trend in qualitative scholarship. Caelli, Ray and Mill (2003) observed a growth in the number of current qualitative studies without established qualitative methodologies. Thomas (2006) also found that many studies did not label their research methodology as belonging to any specific traditions of qualitative research.

The main feature of a generic inductive approach is methodological flexibility. A generic inductive approach is not guided by any established qualitative methodologies, such as the grounded theory, phenomenology, ethnography, narrative research, or case study (Creswell, 2009). Overemphasising and defending established methodologies may result in researchers paying insufficient attention to the substantive findings of social reality. For example, Probert (2006) was trying to choose one well-established qualitative methodology in her research project. However, no matter which traditional qualitative approach was adopted, her work did not achieve her research objectives. This case suggests that established qualitative research traditions cannot, in reality, fit all empirical studies. Hence, a methodologically flexible qualitative research approach is necessary.

Although the generic inductive approach is not based on any established qualitative research methodology, it does not mean this approach does not have a logic which should be followed. The researchers who identified this approach put much effort into establishing such logic for it. Caelli, Ray and Mill (2003) tried to discuss the methodology of a generic inductive approach from the following aspects: researchers' position, the difference between methods and methodology, establishing research rigour and identifying the researchers' analytic lens. These aspects indicate that to guarantee the quality of a generic inductive research, the following factors need to be considered: what motivates researchers to undertake the study, the sufficient description of research methods, clear strategies to establish rigour, and the researcher's role in data analysis. These four aspects laid the foundation for the methodological development of a generic inductive approach. Later, Thomas and Hood systematically clarified the features of the generic inductive approach. Table 1 shows these features of this approach synthesised from the two authors' positions (Hood, 2007, p. 156; Thomas, 2006, p. 241).

Table 1. Features of generic inductive approach

Question Sample	Descriptive, process, interpretive: what are the core meanings evident in the text, relevant to research aims.
Sample	Purposeful; may be either contingent or a priori; criteria may be demographic.
Research process	Inductive and usually cyclical moving back and forth among questions, data gathering, and data analysis.
Data analysis	Focus on themes and interpretation comparing cases to each other.
Memos of analysis	Memoing is critical and memos may be of many types.
Criteria for ending data collection	Added data yield little new information or insight.
Design	Develops and becomes increasingly focused during the research process. Goal is interpretation of rich data.
Presentation of findings	Description of most important themes.
Generalisability	Theoretical or cross-population generalisability to like cases.

In terms of the underlying purposes, the four aspects of a research design and the above features, it can be seen that the generic inductive approach is most similar to the Grounded Theory approach. This is because the Grounded Theory approach also aims to provide a conceptual approach to action and changes in real life situations (Glaser, 1992). However, compared with the grounded theory, the generic inductive approach limits its findings to the presentation and description of the most important themes, not aiming to build theories. Moreover, the end of data collection for it is based on data saturation instead of theoretical saturation, as required by the Grounded Theory. In other words, data collection should end when little new information or insight could be added from the data.

In summary, while including the principles of qualitative inquiry, the generic inductive approach allowed research findings to emerge from the frequent and important themes from the data without it being restrained by a tradition-specified qualitative approach (Thomas, 2006). Namely, this approach is more flexible in theoretical support than other qualitative approaches and the valuable parts of all theory-specified approaches are also retained. It mainly aims to build up clear connections between research objectives and research findings. In addition, it could not only ensure the transparency, but also the defensibility of the research design. The following section will present how to use this research approach in the study of non-English major (Note 1) undergraduates' English learning transition from school to university in China.

2. The Application of Generic Inductive Approach

This section will describe how a qualitative study was conducted under the guidance of the generic inductive approach. This study aims to examine non-English major Chinese undergraduates' English learning transition from school to university. In terms of the methodological perspective, the nature of the research question and the entire research process will be analysed and discussed in detail.

2.1 The Indication of the Research Question

The choice of the research methods is normally determined by research questions. Strauss and Corbin claimed, "the manner in which one asks the research question is important, because it determines to a large extent the research methods that are used to study it" (1998, p. 41). This argument implies that the research procedure a study should follow needs to be problem-oriented, aiming to answer its research questions. Only if researchers identify a fully-justified design to complete their research and achieve their research purpose, can they satisfy the expectation of the potential audiences of their research.

In the study of non-English major undergraduates' English learning transition from school to university in China,

the research question is: what do students experience in their English learning transition from school to college? It may be considered to be too broad or too open for a quantitative research strategy because most quantitative studies normally follow the positivist model to control variables and test pre-specified hypotheses. In contrast, this research question requires producing descriptive and interpretive analysis that highlights deep understanding of Chinese students' learning experiences. Therefore, it can hardly satisfy the requirement of hypothesis development for any deductive inquiry. What is more, the non-specific feature of this research question made this study more explorative than explanative. To some extent, it provides certain freedom for me to describe and understand students' learning transition in depth. Given this, a qualitative research strategy appears to be more suitable for investigating this question.

However, choosing a suitable qualitative research approach for this study involved a very difficult thinking process, as Rossman and Wilson state, "the qualitative study design was exploratory and complex itself" (1985, p. 19). In this study, the generic inductive approach was selected based on two reasons. The first reason is that its interpretive nature satisfactorily fitted the research focus. The study aims to investigate non-English major undergraduates' English learning transition and conceptualise such transition stages from these students' perspective, which is complex in nature. Such complexity brought difficulties to the research design of this study. First, it can be regarded as a phenomenon experienced by students. Therefore, phenomenology may be a more appropriate methodology to consider because it aims to identify the phenomenon through actors' perceptions in a situation (Creswell, 2009; Finlay, 2009; Moustakas, 1994). Nevertheless, it can also be considered as a strategic process for learning. In this case, the Grounded Theory might be helpful because it aims to describe the basic social process over time (Charmaz & Mitchell, 2001; Glaser, 1978). In addition to the above perceptions, investigating undergraduates' transition requires telling stories of individual students' experiences, so narrative research might be helpful to obtain individual students' stories of their lives (Creswell, 2009). Such a situation, with different facets of looking at students' English learning transition requiring different qualitative methodologies, suggests that it is difficult to adopt any single well-established qualitative methodology for its research design because of the multifaceted feature of this research topic. Moreover, they cannot be simply mixed in one study, due to the ontological and epistemological differences in these methodologies. In comparison, the generic inductive approach seems to be much more flexible. It is descriptive and seeks to discover and understand the phenomenon, process, perspectives and worldviews of the people involved (Cooper & Endacott, 2007). This means that no matter how students' English learning transition is perceived, this approach can always fit an investigation into it.

The second reason for choosing the generic inductive approach is that its purposes were in line with my envisaged mode of research. According to Thomas (2006), the generic inductive approach aims to condense the raw text into a brief summary format, establish clear links between the research objectives and the summary findings and to develop a model about the underlying structure of experiences, processes or perceptions derived from the text data. The research design of this study had the same purposes. It attempts to summarise students' descriptions into important themes and build up connections between the research aim and these themes. It also seeks to develop a conceptual model about the non-English major Chinese undergraduates' shared learning transition experiences.

2.2 Sampling Procedure

As a piece of qualitative research, the generic inductive approach requires a purposive sampling, either contingent or a priori. Purposive sampling is a type of non-probability sampling strategy. It not only considers cases based on a variety of criteria and within a wide range of situations to maximise the sample variation (Gobo, 2004), but also depends on the researchers' decision regarding what kind of participants would contribute appropriate data (Jupp, 2006). The research findings based on this sampling strategy are not statistically generalisable because it cannot generally provide a representative sample in terms of a quantitative perspective. However, qualitative research does not attempt to generalise its findings in a statistical way (Strauss & Corbin, 1990). It seeks to specify, and have an in-depth understanding of, the social reality through its findings. In other words, it is concerned more with general structures of social practices. This study aims to find Chinese undergraduates' common experiences of their English learning transition, which belongs to such a category.

The empirical investigation of this study was a case study conducted at a Chinese university with their approval. While considering the diversity and breadth of the sample population, I aimed to find the participants who are likely to provide appropriate data for this study. There were approximately 400 1st-year non-English major undergarduates at this university, which were the target research participants. However, their different stages of college English learning play an important part in their descriptions of their transition experiences. For example,

the 1st-year students who were new or half-way through their college English programmes were unlikely to provide a complete reflection of their learning experiences. Therefore, current students who were at the end of their 1st-year college English study were the proper population for sampling. The reason for such a selection was that these students were more likely to have a better recall of their English learning transition experiences in detail. Eventually, with a consideration of accessing time, students' disciplines and gender, 33 participants were selected by convenient sampling and snowball sampling (Note 2) to participate in this study.

2.3 Data Collection

For data collection, the criterion of generic inductive approach is to collect rich data for interpretation until added data yield little new information. This suggests that data gathering should create aboundant information and only end when no extra information could be added to form new insight. In this study, I adopted in-depth interview to obtain participants' descriptions of their English learning transition experiences. First, it better complies with the interpretive research paradigm in epistemology which assumes that social reality is constructed by the participants. Participants' worlds should be approached through their own perspectives. In-depth interviews provided a better access to the participants' different inner perceptions, attitudes and feelings of their learning experiences through natural conversations, and helped avoid forming an incomplete understanding of these perceptions. This is because the in-depth interview highly relies on the natural interactions between researchers and participants. It rarely imposes any a priori categorisation or asks any predefined or prepared questions (Mears, 2012; Minichiello et al., 1990; Punch, 1998). In addition, it would not inhibit participants' responses, so that I could be highly responsive to participants' individual differences and the contextual transformations.

Generally, the data collection procedure includes three stages: preparing for interviews, conducting interviews, and transcribing interviews. At the first stage, before the real interview started, I conducted two dummy interviews for preparation. These interviews made me realise that employing a more open format in interviews would be more useful in obtaining information from students' perspectives than constructing a list of scripted questions, even though it might add substantial extra work to my data analysis. Students may be more comfortable telling their transition experiences based on their own logic of organisation. After the dummy interviews, I decided to keep the interview schedule loosely structured.

At the second stage, 33 participants voluntarily participated in the in-depth interviews. As the interviewer, I understood that I was an important part of the research instrument in the in-depth interviews. In terms of my role in interviews, I presented myself as a "friendly helper" of the interviewees, who was sympathetic to their lives and willing to listen to their opinions. This helped me to establish rapport with them before conducting the interview. In addition, when interviewing the participants, I had some previous studies' viewpoints in my mind but did not impose them on my questions. On the one hand, I kept attentively listening to the participants' descriptions. On the other hand, I generated questions to respond to the context and to move the conversation towards my area of interest. Both behaviours aimed to guarantee the collected data could allow insightful analysis and produce defensible findings.

At the third stage, out of 33 participants, 31 of the interviews were tape-recorded with the interviewees' permission. The other two interviewees preferred not to be tape-recorded, so their interviews were recorded by detailed note-taking, followed by a discussion and fact checking process. This was to ensure the clarity and consistency of the information provided. Due to the particiapnts' lack of competent English proficiency, Chinese was used in in-depth interviews. Then, they were transcribed for data processing. During the stage of processing the interview data, some time was spent double-checking the answers and reading them through repeatedly. This enabled me to gain familiarity with the collected data and obtain a preliminary impression of some significant components and important points.

2.4 Data Analysis

In terms of the generic inductive approach, Thomas (2006, p. 242) argues that the data analysis procedure is to develop categories into a framework or a model. This framework can summarise the raw data and convey key themes or processes. These categories are developed from the coding. In this study, I adopted the strategy of inductive analysis which is suggested by Thomas (see Figure 1). This strategy has five steps: initial reading of text data, identification of specific text segments related to the objectives, labelling the segments of the text to create categories, reducing overlap and redundancy among the categories, and creating a model incorporating most important categories.
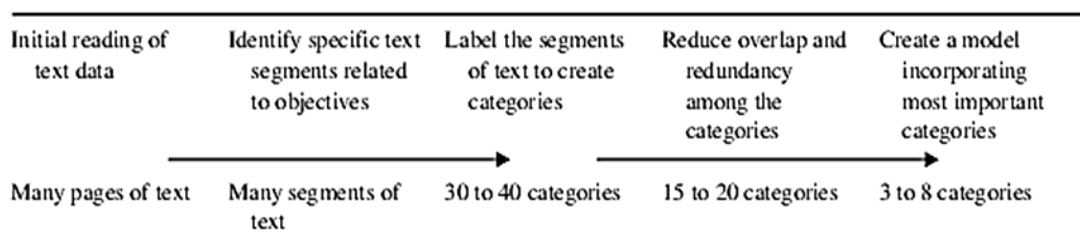
Figure 1. The adopted data analysis strategy of this study

I followed the aforementioned five steps to develop important themes from my 33 interview transcripts. At the same time, this study borrows the constant comparison process from the Grounded Theory methodology. The process of data collection and data analysis were simultaneously intertwined. From the aspect of data analysing techniques, in general, the main approach of qualitative data analysis is thematic and content-based because it is a study of recorded human communications for meanings (Babbie, 2003). This study is not an exception and also adopted thematic content analysis. According to Krippendorff (2004), such an analysis needs to address word frequencies, and the definition of the data and context relative to the data, because these elements reflect important concerns in human communications.

At the beginning of data analysis, I read through many pages of text data from five interviews and did line-by-line open coding with reflection memos. This aimed not only to identify specific text segments related to my research aim, but also to label the segments of text as initial themes. Themes were named in three ways: participants' words, literature concepts, and my words. The qualitative data analysis package NVivo was used for this initial coding. This is a useful tool which aids researchers to organise the materials by nodes. It can be understood as being containers of the research material itself and also thoughts around this material (King, 2004). In NVivo, the coded text was assigned to free nodes and in a disordered arrangement. Meanwhile, different types of analytical memos were written in order to record the researcher's interpretations of the data.

Based on this initial coding, some specific segments of information emerged from the texts and grouped together for continuous coding of the other 28 pieces of interview trascripts. These interview transcripts were divided into four batches (7 participants per batch) and analysed in the same way to create more segments of text. During the continuous coding process, the coded texts were re-coded if they seemed to be inappropriate. These segments of information were labelled either from interviewees' phrases or my words based on their descriptions. Some of the texts were printed out on small cards for further analysis. When data saturation was achieved, 13 free themes were developed or extracted from the interview transcripts. Subsequently, I reduced the overlap and redundancy amongst these free themes. Memos continued to be written, most of which were critical and in diagrammatic form. This aimed to help continuous data reduction. In order to establish the trustworthness of my qualitative data analysis, I used the techniques of member checking from prticipants and peer debriefing from two experienced qualitative researchers. Finally, based on a careful reading of all the free themes, four core themes and their sub-themes were developed to incorporate the research findings (see Table 2). All these themes reflected participants' views and were regarded as the key stages of their English learning transition process.

Table 2. Summary of themes developed from the data

Core themes	Sub-themes
Ending the old: relatively high expectation ①②	Reasons for high expectation ①
	Expected college English study① ③
Discomfort and loss: confronting curriculum repetition and teaching diversity① ②	Confronting curriculum repetition ② ③
	Confronting teaching diversity ② ③
Uncertainty and opportunity: improving learning ability ① ②	Self-exploring③
	Learning from others③
	Enriching English learning experience①
Beginning the New: confident in future English learning① ②	

Note. ①- my words, ②- literature concepts, ③- participants' words

3. Summary of the Research Findings

By using the generic inductive approach, I finally answered the research question of this study: "what do students experience in their English learning transition from school to college?" According to the students' statements, they may experience four generic stages in this transition process: "Ending the old: relatively high expectation", "Discomfort and loss: confronting curriculum repetition and teaching diversity", "Uncertainty and opportunity: improving learning ability" and "Beginning the New: confident in future English learning". The four stages identify some common experiences and problems of the 1st-year non-English major undergraduates' English learning at Chinese universities. By recognising these experiences and problems, college English teachers can not only assess students' potentials more accurately, but also tailor their lessons more purposively and effectively to achieve their desired goals. Meanwhile, I also found that students' learning autonomy and independence could be gradually developed in this transition process. These capacities may lay a good foundation for their future English learning.

4. Conclusion: Some Suggestions for Using Generic Inductive Approach

In order to improve the quality of educational studies, qualitative research strategy has been adopted by an increasing number of educational researchers and practitioners. Based on the discussions above, if educational researchers and practitioners intend to use this approach effectively in their empirical studies, the following suggestions may be helpful for consideration.

Firstly, the overall aim of the study should suggest an exploratory and descriptive research nature. Meanwhile, in terms of methodological considerations, research questions should be more suitable to be answered by a qualitative inquiry. This is because generic inductive approach is qualitative, which means its research nature is subjective, inductive and interpretive; with an aim of inquiring how the educational experience is created and given meaning.

Secondly, the study might be difficult to follow one established qualitative research methodology. In other words, although the study has clear research objectives, none of the traditional methodologies could fully fit the study. In this case, a generic inductive approach may be helpful in forming its research design. Although it is not guided by any established qualitative methodologies, it is more straightforward and links the research findings and the research objectives of the study.

Thirdly, from my study, it can be seen that the research design guided by the generic inductive approach develops and becomes increasingly focused during the research process. Therefore, it needs researchers' cyclical moving back and forth among research questions, data gathering, and data analysis, which means that these three research elements should be carried out simutaniously. In addition, researchers should try their utmost to suspend their own perceptions during the data collection procedure and figure out clear strategies to establish rigour in their data analysis.

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Notes

Note 1. At most Chinese universities, English major students' English learning follows *The National Syllabus for English Majors at Universities and Colleges*. Non-English major students' English learning follows *The National College English Syllabus*.

Note 2. Convenient sampling and snowball sampling are both purposive sampling stratigies.