





TARBIAT MOALLEM UNIVERSITY
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On the Status of Mixed Methods Research in Applied Linguistics

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To

My Parents

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The errors that remain are my own responsibility.

Abstract

The present study investigated the current status of mixed methods research as a new trend in the field of applied linguistics. The focus of the investigation was on the use of mixed research designs, mixed methods sampling designs, the relationship between qualitative and quantitative components in terms of the dominance of each method in the design of the studies, the nature of “inference quality” in the interpretation of the articles, and attitudes of applied linguistics researchers toward mixing methods in the field. To this purpose, 205 research articles from seven internationally-acclaimed journals were qualitatively content analyzed and electronic interviews were conducted with a number of researchers in the field. Generally, the results of the chi-square goodness-of-fit tests for the total frequencies revealed that there were significant differences in the mixed research designs, mixed sampling designs, and the dominance of the methods employed in the journal articles. The preliminary findings indicated that concurrent designs were used more frequently (71.71 %) than sequential designs (24.88 %). More specifically, the analysis of mixed methods research designs revealed that the studies did not draw on a wide range of designs and the most frequently used design was the concurrent triangulation design (66.34 %). As for the mixed sampling designs, the findings indicated that the most prevalent design was concurrent identical and the studies utilized a limited number of mixed sampling designs. Moreover, the dominance of the qualitative and quantitative methods was analyzed and the findings showed that most of the studies (74.15 %) made use of qualitative and quantitative components with equal status. Also, the quantitative-dominant designs occurred in 16.10 % of the cases and the qualitative-oriented designs comprised a low percentage in the sample (9.76 %). The analysis of the

conclusion and discussion sections of the articles, addressing “quality of inferences,” showed that independent sections on data integration were not presented in the studies and meta-inferences, in most of the cases, were not developed based on qualitative and quantitative inferences. Finally, the results of the interviews revealed that mixed methods research could be considered as a new approach in applied linguistics and researchers in the field seemed to agree that integrating qualitative and quantitative approaches can help us investigate the problems from different perspectives and angles to develop a clearer and more complete picture of the phenomenon under study. The results of the present study have implications for the utilization of mixed methods in applied linguistics research with regard to design and sampling considerations, relationship between the methods, integration quality, and inference quality.

Table of Contents

Approval	ii
Dedication	iii
Acknowledgements	iv
Abstract	v
List of Tables	x
List of Figures	x
Chapter One: Introduction	
1.1. Overview	2
1.2. Research Area and Background of the Study	2
1.3. Statement of the Problem and Research Purpose	4
1.4. Research Questions	6
1.5. Significance of the Study	6
1.6. Definition of Key Terms	7
1.7. Limitations and Delimitations of the Study	9
1.8. Organization of the Dissertation	10
Chapter Two: Review of the Literature	
2.1. Overview	13
2.2. Research Paradigms	13
2.3. Quantitative Research	17
2.4. Qualitative Research	19
2.5. The Dichotomy Between Qualitative and Quantitative Research	23
2.5.1. The Dichotomy Revisited	25
2.6. Mixed Methods Research: Definition	33
2.7. Mixed Methods Research: A Historical Background	36
2.7.1. Triangulation	39
2.7.2. The Evolution of Mixed Methods from Mono Method Research	43

2.8. Research into Mixed Methods	45
2.8.1. Theoretical Issues in Mixed Methods Research	45
2.8.2. Methodological Issues in Conducting Mixed Methods Research	62
2.8.2.1. Mixed Methods Research Questions	65
2.8.2.2. Mixed Methods Research Designs	69
2.8.2.3. Mixed Methods Sampling Designs	79
2.8.2.4. Mixed Methods Data Collection	82
2.8.2.5. Mixed Methods Data Analysis	85
2.8.3. Validity Issues in Conducting Mixed Methods Research	95
2.9. Sample Mixed Methods Studies	104
2.10. Applied Linguistics and Mixed Methods Research	108

Chapter Three: Methodology

3.1. Overview	116
3.2. Credibility of the Study	116
3.3. Data Gathering Procedure	117
3.3.1. Data Sources for Content Analysis	117
3.3.2. Interviews	122
3.3.2.1. Development of the Interview Questions	122
3.3.2.2. Administration of the Electronic Interviews	123
3.4. Data Analysis	124
3.4.1. Content Analysis	124
3.4.1.1. The Code Sheets	126
3.4.1.2. Qualitative Analysis of Inference Quality	128
3.4.2. Analysis of Interviews	130
3.4.3. Cohen's Kappa for Inter-coder Reliability	131

Chapter Four: Results and Discussion

4.1. Overview and Restatement of the Research Purpose	133
4.2. Results	134

List of Tables

Table 2.1. Basic Beliefs of the Transformative Paradigm	51
Table 2.2. Contemporary Core Characteristics of Mixed Methods Research	58
Table 2.3. Research Methods Used by Discipline and Group	77
Table 2.4. Mixed Methods Research Designs Used by Discipline and Group	77
Table 2.5. Justifications for Undertaking Mixed Methods Studies	98
Table 2.6. Tashakkori and Teddlie’s Integrative Model of Inference Quality	103
Table 4.1. Frequencies of Mixed Methods Research Designs Used in the Articles	131
Table 4.2. Observed and Expected Frequencies for the Designs	136
Table 4.3. Triangulation by Analyses: Frequencies of Occurrences	139
Table 4.4. Frequencies of Mixed Methods Sampling Designs Used in the Articles	150
Table 4.5. Frequencies of Patterns of Dominance in the Designs of the Studies	154

List of Figures

Figure 2.1. Triangulation in land surveying	40
Figure 2.2. The process of synergy in the synergistic approach	54
Figure 2.3. The synergistic approach model	55
Figure 2.4. Mixed-method research designs	73

CHAPTER 1

INTRODUCTION

1. Introduction

1.1. Overview

In this chapter, the research area and background of the present study are introduced and the research problem is presented. The chapter moves on to stating the purpose of the study and addressing the nature of the research. Then, the research questions are put forward. Also, the significance of the present research is discussed. Finally, the limitations and delimitations of the study are dealt with and the structure of the dissertation is outlined.

1.2. Research Area and Background of the Study

The nature of inquiry in applied linguistics, it seems, has undergone challenges as the field has seen decades of research; and it is now more than two decades that “growing importance” has been “placed on research in second and foreign language teaching and learning” (Brown & Rodgers, 2002, p. xi). This is due in part to the advances in the natural sciences, and also developments and challenges in research in the social and human sciences (see Dörnyei, 2007). As with the social sciences, one major challenge for applied linguistics researchers has been the divide between qualitative and quantitative research that, in a good number of contexts, has led to the division of researchers into two differently oriented camps (i.e., qualitative researchers and quantitative researchers). In this respect, as Newman and Benz (1998) pointed out, there have been serious debates and controversies about the dichotomy between qualitative and quantitative approaches since the early 1980s “as though one or the other should eventually emerge as superior” (p. xi).

More recently, however, the dichotomy seems to have been criticized (Newman & Benz, 1998; Ridenour & Newman, 2008) and mixing the two approaches has become many social researchers' concern (e.g., Caracelli & Greene, 1997; Collins, Onwuegbuzie, & Jiao, 2006, 2007; Creswell, 2008; Greene, 2008; Tashakkori & Teddlie, 1998, 2003a, 2008, to name a few).

Although mixed methods research is a new concept in the social and human sciences (Tashakkori & Teddlie, 1998), many studies have directly addressed the issue since the year 2007, which marks the date of publication of the first issue of the *Journal of Mixed Methods Research* (January 2007). In the editorial of the first issue of the Journal, Tashakkori and Creswell (2007a) announced the advent of “the new era of mixed methods” by stating that the journal would start “a new era in conceptualization and utilization of integrated approaches across the social and behavioral sciences” (p. 3).

In fact, this new trend in the social and human sciences has attracted social researchers' attention, leading to the exploration of different aspects of integrating qualitative and quantitative strands. For example, Morgan (2007) investigated methodological issues for integrating qualitative and quantitative approaches. Dellinger and Leech (2007) examined different views on validity of mixed research and introduced a unified validity framework. Denscombe (2008) viewed mixed methods approach as a “third paradigm” in social research. Greene (2008) investigated the value of mixed methods inquiry in the social sciences with regard to different methodological domains. More specific studies on methodological issues and design considerations have also been conducted in recent years (e.g., Collins et al., 2007; Creswell, Plano Clark, & Garrett, 2008; Fielding & Cisneros-Puebla, 2009; Feilzer, 2010; Hall & Harwood, 2008).

Apart from the studies that investigated the nature and process of integrating qualitative and quantitative methods, a considerable number of studies used mixed designs as a research tool for their investigations and/or put forward persuasive arguments for using mixed research in a variety of fields. In fact, mixed methods research has been introduced and used as a powerful method (see O’Cathain, 2008) in different fields of inquiry such as education (Arnon & Reichel, 2009; Gorard, 2004; Igo, Kiewra, & Bruning, 2008; Jang, McDougall, Pollen, Herbert, & Russell, 2008; Scott & Sutton, 2009), medicine (Fries, 2009; Scott & Briggs, 2009), psychology (Massé, 2000; Miller, 2004; Todd, Nerlich, McKeown, & Clarke, 2004); nursing and health sciences (Adamson, 2005; Andrew & Halcomb, 2009; Flemming, 2007; Forthofer, 2003; Whitley, 2007), public policy research (Read & Marsh, 2002; Wolf, 2010), and so forth.

Following this new line of research in the social and human sciences, the present study seeks to explore the status of mixed methods research in the field of applied linguistics. The present research, thus, builds on similar empirical studies in the neighboring fields that aimed at investigating the nature of mixed research designs (Creswell et al., 2008), mixed methods sampling designs (Collins et al., 2007), nature of data collection and analysis (Bazely, 2006, 2009), “quality of inferences” in mixed methods research (Tashakkori & Teddlie, 2008), and attitudes of researchers toward mixed methods research (Johnson, Onwuegbuzie, & Turner, 2007).

1.3. Statement of the Problem and Research Purpose

Although the nature and prevalence of qualitative and quantitative methods in applied linguistics have already been investigated (Benson, Chik, Gao, Huang, & Wang, 2009;

Davis, 1995; Lazaraton, 1995, 2000, 2002, 2005; Norton, 1995), little research has addressed integration of the two methods. Unlike studies in the social and behavioral sciences, it appears that applied linguistics research has not yet applied mixed methods as an independent approach; nor has it explored theoretical and practical issues related to mixing qualitative and quantitative methods. Despite the fact that a number of studies claim to have combined qualitative and quantitative approaches (e.g., Crawford Camiciottoli, 2005; Lamb, 2007; Lee & Greene, 2007; Rogerson-Revell, 2008), we can hardly find any comprehensive research that has explored mixed methods research in applied linguistics, and there is not much evidence about the nature and validity of mixing methods in the field. This is confirmed by Dörnyei (2007) who stated that “most studies in which some sort of method mixing has taken place have not actually foregrounded the mixed methods approach and hardly any published paper have treated mixed methodology in a principled way” (p. 44). Dörnyei himself only touches upon the concept of mixed methods research in his book (Dörnyei, 2007) and does not dig deep into issues such as the nature of mixing methods, mixed sampling designs, and validity/credibility or what Tashakkori and Teddlie (2008) call “quality of inferences” in mixed methods research. So it seems that our understanding of mixed methods research in the field is yet to be developed and, to this purpose, serious and comprehensive research is a necessity.

The purpose of the present study, thus, was to investigate the current status of mixed methods research in the field of applied linguistics. More particularly, the study aimed at investigating the nature of mixed methods research designs, mixed methods sampling designs, the nature of data collection and analysis and integration of data, “quality of inferences” in mixed methods research (Tashakkori & Teddlie, 2008), and applied

linguistics researchers' attitudes toward mixed methods research. To this end, the study addressed a general question: "What is the status of mixed methods research in applied linguistics?"

1.4. Research Questions

To answer the above-mentioned general question inquiring about the status of mixed methods research in applied linguistics, the study attempted the following specific research questions:

1. What kinds of research designs are used when mixing is utilized in applied linguistics research?
2. What kinds of sampling designs are used in mixed methods research in the field of applied linguistics?
3. When integration of methods is utilized, is there a tendency toward use of either a qualitative or a quantitative component as a dominant component at the stages of data collection and/or data analysis?
4. How are general conclusions or "meta-inferences" developed in this type of research?
5. What are applied linguistics researchers' attitudes toward integrating qualitative and quantitative methods for conducting research in this field?

1.5. Significance of the Study

The significance of the study lies in the value of understanding the nature of mixed methods research as a new and growing trend in applied linguistics. More specifically,

such exploratory studies would have theoretical and practical values. As far as theory is concerned, this study addresses and evaluates comprehensive literature on mixed methods research and introduces the most important models that have been recently presented in social science research. This can be taken as a point of departure for further research on mixed methods or for utilizing mixed methods as a new approach in the field of applied linguistics. Practically, the study investigates methodological issues related to combining qualitative and quantitative methods and addresses important methodological aspects of mixing methods such as mixed methods research designs, mixed methods sampling designs, dominance of qualitative/quantitative methods, and inference quality. These methodological issues may provide a clearer picture for applied linguistics researchers in terms of realizing mixed methods research in practice. On the whole, the findings will help us revisit our understanding of the process of integrating qualitative and quantitative research, considering issues related to design quality, sampling, data collection and analysis, and interpretations.

1.6. Definition of Key Terms

1.6.1. Quantitative Research

Quantitative research is “hypothesis-testing research” (Kerlinger, 1964, as cited in Newman & Benz, 1998) which investigates “the effect of a treatment or an intervention” (Newman & Benz, 1998, p. 18). It is a research method for analyzing data “in terms of numbers” (Best & Kahn, 2006, p. 79).

1.6.2. Qualitative Research

“Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, conversations, photographs, recordings, and memos of the self” (Denzin & Lincoln, 2005, p. 3, based on Denzin & Lincoln, 1994).

1.6.3. Mixed Methods Research

Bergman (2008, p.1) defines mixed methods research as “the combination of at least one qualitative and at least one quantitative component in a single research project or program.” It should be noted that this definition was used in the present study to operationalize the concept of mixed methods research.

1.6.4. Inferences

Inferences are a “researcher’s construction of the relationships among people, events, and variables, as well as his or her construction of respondents’ perceptions, behaviors, and feelings and how these relate to each other in a coherent and systematic manner” (Tashakkori & Teddlie, 2003b, p. 692).

1.6.5. Meta-inferences

General conclusions that are developed based on inferences from qualitative and quantitative strands (Tashakkori & Teddlie, 2008).

1.6.6. Inference Quality

It is “an umbrella term for evaluating the quality of conclusions that are made on the basis of the findings” from both qualitative and quantitative strands (Tashakkori & Teddlie, 2008, p. 103).

1.7. Limitations and Delimitations of the Study

As one of the first studies to investigate issues related to mixed methods research in the field of applied linguistics, the present research was exploratory in nature. Therefore, several limitations in the study would restrict certain conclusions that might be drawn. Firstly, the first two research questions were explored mainly based on the models presented by Creswell et al. (2008) and Collins et al. (2007). Although the frameworks are developed based on extensive literature reviews and empirical research and have proved to be accurate models for examining mixed methods research designs and mixed sampling designs, these models may not be applicable in categorizing more complex mixed designs that would emerge in the process of analysis (see Collins et al., 2007). Secondly, to the researcher’s surprise, the return rate of the interviews was low. So the findings from the interviews, including the researchers’ attitudes toward and understanding of mixed methods research, may not be generalizable to the applied linguistics research community. Notwithstanding, these comments provide us with insightful information about how the concept of mixing and the practice of integrating qualitative and quantitative research might be viewed by scholars and researchers.

As for the delimitations of the study, the scope of the study was limited to a purposive sample of articles published in seven international journals within a 14-year