

On the Mixed Methods Designs in Language Education Research

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Abstract: With the broad application of mixed methods in social sciences, methodological designs in language education research has grabbed growing attention from scholars. This paper examines the use of mixed methods in empirical studies on language education from 2016 to 2020 in four International journals. Grounded on Creswell's (2018) theory, the core design of the mixed method is further illustrated, expected to render some methodological enlightenment for future linguistics and education researchers.

Keywords: Language Education; Research Method; Mixed-method Design

1. Introduction

Method is to research what soul is to human. With the termination of paradigm war, mixed methods as a “third research paradigm” has been progressively gained a firm foothold in academic circles. On account of the intricacy of research questions, unitary method hardly make the research perfect.

Since the issue of the handbook in 2003, mixed methods have been broadly spread in social sciences, involving language education. Nevertheless, related studies of mixed methods design are narrow. Instead of a simple combination, the mixed-method carries its unique philosophical foundation, methodology and design principles. On the ground of Creswell's (2018) doctrines, this paper analyzes the kernel of mixed methods designs in language education studies, expected to render certain methodological enlightenment for future language education researchers.

2. Literature Review

2.1 Overview of Mixed Methods Design

Research design appertains to the strategies of gathering, dissecting and elaborating data in studies (Creswell, 2018). Investigators take up diverse tactics to arrange their research, normally organized into two categories, interactive and typology.

Maxwell and his colleagues are major proponents of interactive design, which highlights the interaction between elements in research process. The typology, in accordance with certain standards, defines and classifies the conceptual framework and design types, proffering available directions for the novice. Groups of researchers have put forward varying propositions, among which the representatives are Greene, Morse, and Creswell et al. The dimensions of design consist of the order, the precedence and the amalgamation phase of the two method chains.

2.2 Studies on mixed methods in language teaching

With the high popularity of mixed methods, boffins in applied linguistics also began to observe the study on methods. Hashemi (2013) inspected the empirical articles in education and linguistics from 1995 to 2008, and probed how researchers mix quantitative and qualitative strands. In China, Zhang(2017) carried out a comprehensive study on mixed methods, targeting at the philosophical foundation, quality standard and other critical angles. Grounded on it, this paper further updates data and expounds the method designs, expected to render some illumination for succeeding investigators.

3. Methods of this study

This study selects empirical studies from 2016 to 2020 in four international journals, Applied Linguistics, The Modern Language Journal, Language Learning Research, TESOL Quarterly. Articles that clearly indicate the use of mixed methods are screened out for content analysis and design explanation. Justifications for such sampling are as follows: (1)They are authoritative as SSCI sources in linguistics and education. (2) They are representative as data reference of Zhang Pei's 2013 National Social Science Fund project. This paper chooses data in the latest half decade to make statistical updates, with the purpose of exploring the cutting-edge development trends of language education studies.

4. Results and discussion

After three rounds of screening, we filtered out fifty-two articles explicitly employed mixed methods from 2016 to 2020, which showed a rocketing growth compared with the previous decade. Some even demonstrated the design they used in the method part, and cited important literature on mixed methods. This indicates that efforts are paid on mixed methods in applied linguistics.

Creswell (2018) proposed three core designs and four complex application of mixed methods, presenting vital theoretical guidance for researchers. On the ground of Creswell (2018) and chosen studies, this paper further expounds the typical method designs used in language education.

4.1 Convergent Design

Convergent design, which has been studied by scholars since the 1970s, is most frequently picked for mixed methods. In such design, researchers simultaneously attain Qual and Quan statistics, which complement each other and jointly interpret the results.

Hlas et al. (2019) adopted the design to inquire the distraction of college students in the second language class. The researchers observed 17 classes with 274 students. Each student was given a clicker to quantify how long and how often they were distracted. In the last 5-10 minutes of class, students were distributed an open-ended questionnaire to gather contents about their attention-related activity types, personal beliefs, and their willingness to partake the following panel discussion. It was carried on soon in a reserved conference room, with audio for qualitative analysis. In this process, researchers employed diverse data collection means, efficiently converging data of two properties, which is conducive to obtaining a comprehensive picture of the subject matters and proffers vigorous evidence for the result analysis.

4.2 Explanatory Sequential Design

Sequential design normally contains several stages. As for the explanatory one, the quantitative method plays a domineering role in the former segment, and in the latter segment the qualitative part supports as supplementary justification of the design.

Uchihara & Harada (2018) clearly employed this design, looking into the relationship between students' vocabulary knowledge and their language skills. Before the experiment, 35 participants were delivered self-perception questionnaires about their language skills. Then, in a quiet room, they took three vocabulary tests, VLT and LVLT (a self-rating scale embedded in the language background questionnaire, which had been completed). The data obtained by the above two means will be quantitatively analyzed. About five months after the termination of the test, 10 partakers from the course offered to enroll in a meeting with the investigator, in which the problems found in quantitative statistics will be inquired qualitatively in depth.

4.3 Exploratory Sequential Design

Exploratory sequential design also belongs to one of the three core designs. It consists of three phases, initiating with qualitative strand to explore problems. Grounded on this, quantitative measures are developed in the second stage. Eventually, newly designed quantitative tools will be implemented in new or larger sample of participants to further explain the qualitative discoveries.

Liao & Li (2020) used a mixed medium to examine intercultural teaching instructions in English courses. Participants were 10 full-time instructors and 44 second-year students majoring in foreign languages from four universities in Beijing, China. Data sources concerned teachers' syllabus, reflective logs and likewise teaching materials, as well as panel discussion and audio surveillance of classroom practice. Mixture takes place during the data analysis phase. In the initial part, content analysis was implemented to recognize kernel categories and prominent features qualitatively. Then, qualitative data is quantified, and motives are further compared and inquired by quantitative tools. In this case, quantitative measures derive from qualitative discoveries, well-grounded and suitable for in-depth study of specific problems or phenomena.

5. Conclusion

Mixed methods effectively bond the vantages of text and numeric analysis, overcoming the inherent limitations of any single means and attaining the effect of 1+1>2. By evaluating the empirical studies in latest half decade, we observe that there is an evident accession in the use of mixed methods in language education inquiries, and numerous investigators have demonstrated the design in method part of articles, presenting a meaningful conceptual framework for novice researchers.

Due to the intricacy of research questions and miscellaneous design dimensions, it is infeasible to designate all the design models into fixed prototypes. Apart from the mentioned three core designs, Creswell (2018) also proposed four complex design applications, namely mixed method case study, mixed method experimental design, mixed methods participatory-social justice design and mixed methods evaluation design, exhibiting the multiplicity of research methods. This paper probes three basic core designs by illustrating the samples in language education studies, expected to render some methodological enlightenment for language education researchers.

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