

The New Paradigm of Ethnic Minority Educational Research: Mixed Methods Research

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Abstract:

Qualitative research and quantitative research have their own advantages, so mixed use both to improve scientific research. Too many Chinese Ethnic Minority Educational Research in qualitative research, and few use quantitative research, leading the results with many subjective factors. The reason is that selecting ethnic minority educational research paradigm is based on the subject property-oriented, rather than a problem-oriented research, and the selection of ethnic minority educational research paradigms was too concern about minority culture, ignored its educational attribute. Mixed methods research as the "third methodological movement", it can not only integrate the advantages of qualitative research and quantitative research, and enhance the consciousness of problem-oriented of researchers, but also to improve the science of ethnic minority educational research and promote the development of this discipline.

Keywords: ethnic minority educational research; mixed method research; minority culture; research paradigm
Ethnic minority educational research, sharing dual natures of education and minority, people and culture have become an important factor in ethnic minority educational research, however, in the dispute of qualitative research and quantitative research, the ethnic minority educational research prefer the former. Causing it is difficult to go into the vision of ethnic minority educational researchers for the latter paradigm. Currently, the international education research be in a major shift in paradigm, the estrangement of qualitative research and quantitative research gradually digestion. Instead, the mixed methods research is rising in educational research as "The Third Paradigm" and affecting it in a large part.

1. The rise of mixed method research

From a methodological point of view, there was a heated argument between the quantitative research which is base on theory of positivism, empiricism and the qualitative research which is base on theory of phenomenology, constructivism and interpretivism in the United States last century. [1] As a result, mixed methods research emerged in the process of trying to reconcile the quantitative research and the qualitative research.

Since the 20th century, notable achievements of the natural sciences to consolidate the status of scientism in various fields, the mathematical logic analysis was also prevalent in educational research, to get the conclusion of "objectivity" and "science." Before the 1960s, the quantitative research in the field of social science research was popular in the United States. The positivist believed that the objective fact of the existence governed by the laws of nature on ontology, so they emphasized the objective on epistemology, and believed that it is likely to get the conclusions of "value-free" (Note: can be translated as "irrelevant to value"). After the 1960s, the quantitative research and its philosophical foundation suffered criticism in the field of education. Further more, the anthropological methods is widely used in the social sciences, the position of qualitative research in educational research began to highlight. The phenomenology, constructivism and intepretivism are totally different from positivism and empiricism on ontology and epistemology. The former believed that there are different subjective facts exist in everyone's psychological structure and the meaning construction is also different among different people in a same study on ontology; and the former emphasized on human subjective participate in the study, every social science researchers have mingled with the values in their study on epistemology.

Since the theoretical basis of qualitative research and quantitative research is diametrically opposed, the researchers produced a tendency in the choice of one or the other when they choosing the methods, and only used a single method paradigm in a single study. [2] Because the researchers used alone quantitative research or qualitative research, it is limited to enhance the quality of educational research; the two paradigms have their own limitations, the researchers are not conducive to find the essence hidden behind the education problem, thereby affecting the practical problems of education to be solved. Based on this, some researchers believe that quantitative research and qualitative research can be used together and committed to the integration and exchange of two paradigms, Johnson and B. Onwuegbzie are clearly present the mixed methods research as the third paradigm, to build a bridge between the two. [3] They defined the mixed methods research as a type of research where researcher mixes or combines qualitative and quantitative research techniques, approaches, concepts or languages into a single study. [4]

2. The problems and cause analysis of the current Chinese ethnic minority educational research paradigm
 Study on Chinese ethnic minority educational research, mainly in current qualitative research, lacking of necessary quantitative research, which seriously hampered the quality promotion of the ethnic minority educational research and the innovation of methodology.

2.1 The unity of Chinese ethnic minority educational research paradigm

With quantitative research in educational research exposed the drawbacks, and the humanities characteristic of qualitative research fit well with the education disciplines, qualitative research soon attracted the attention of anthropology, pedagogy and other humanities. Because qualitative research and traditional Chinese speculative research are very similar, and the overall research ideas in line are conform to the thinking habits of Chinese people, so qualitative research have an important place in humanities research quickly. The most important feature of ethnic minority educational research is to pay attention to minority cultures, which difficult to quantify. And the qualitative research at the background of the study phenomenon, which trying to understand and interpret the phenomenon that people had given meaning to." [5] " It is a comprehensive process of exploration." [6]. Therefore, qualitative research is more coincided with the adequacy of ethnic minority educational research.

To better illustrate the status of Chinese ethnic minority education research paradigm, we used 725 papers in *Journal of Research on Education for Ethnic minorities* from 2008 to 2012 as a sample, to analyze the status quo of Chinese ethnic minority educational research methods. We usually divide these methods of ethnic minority educational research into Analysis, Case study method, Investigation, Historical research, Statistics, Experimental method, Comparison Method, Literature and other 9 categories, in which Analysis, Historical research, Comparison Method and Literature are take the qualitative research methods mainly; and the others are based on quantitative research.

Table 1 The Statistical Table of Research Methods in *Journal of Research on Education for Ethnic minorities* from 2008 to 2012

Methods	frequency	ratio
Analysis	468	64.55%
Case study	68	9.38%
Investigation	90	12.41%
Historical research	39	5.38%
Statistics	19	2.62%
Experimental method	14	1.93%
Comparison Method	15	2.07%
Literature	7	0.97%
Other methods	5	0.69%

From the statistical results, the Chinese ethnic minority educational research depend mostly on qualitative research and speculative analysis, and relatively few statistical studies to quantify; the statistics also found that most studies using a single research methods, there are only a few articles using the mixed research methods.

2.2 Analysis of the Reasons Why Qualitative Research Dominate the Ethnic Minority Educational Research

First, selecting the ethnic minority educational research paradigm is based on subject property, rather than problem-oriented. Scholasticism Renaissance began to decline, astronomy, medicine, chemistry, botany, anatomy and other natural sciences achieved impressive success, then, positivism, empiricism gradually on the rise, and penetrate into many areas, dominated their research paradigm. The quantitative research became the most popular research paradigm in humanities and also including the education, the researchers regardless of the discipline property, just blind worship of the quantitative research paradigm. Facts have proved that when the application of quantitative research in the humanities and expose its drawbacks, it was soon abandoned and replaced by the humanities which is more correspond with the qualitative research. Education is a humanistic phenomenon, unlike the natural sciences research to find a causal relationship between variables, but a process of the meaning construction, in education the human experience, emotional changes, psychological reaction, behavior, culture and so all can be a research object. When study of these factors, the interpretation of method - qualitative research is more effective compared with positivist research methods.[7] However, some educational problems require not only qualitative research, but also need to quantify process. The researchers only considered fit paradigm and discipline attributes, ignoring the issue of the research paradigm applicable or not, this is one of the reasons why qualitative research methods dominate the ethnic minority educational research.

Next, in the process of choosing the ethnic minority educational research paradigm paid too much attention to the minority culture, ignored its pedagogic property. Ethnic minority education is an interdisciplinary subject with comprehensive properties which comes from the crossing subjects of ethnology and pedagogy. From current ethnic minority educational research found that it paid too much attention to the diversity of minority

culture backgrounds and tended to ethnic discipline property, but ignored the education discipline attributes. [8] Ethnic minority educational research is mainly to analyze the educational issues, rather than minority cultures. Because of so, it directly affects the choice of ethnic minority educational Research Paradigm.

3. The Significance of Mixed Research Methods Applied to Study the ethnic minority educational Research

Mixed Methods Research is just emerging in China in the field of education, has not attracted enough attention, we will discuss the precondition and significance of mixed research methods applied to ethnic minority educational research theoretically.

3.1 The Premise of Transition of Ethnic Minority Educational Research Paradigm

Chinese ethnic minority educational research Paradigm need to shift to mixed methods and make breakthroughs, at least satisfied the following two preconditions.

First, as to the object of ethnic minority educational research, the research should base on the educational attributes, and concern the minority culture appropriately, rather than the reverse. For ethnic minority educational problem there paramount attribute are educational, the fundamental standpoint can not be shaken. At present, the ethnic minority educational research in China has the quality of "novelty" in a large part, and regard the minority as "inhomogeneity", exaggerated the differences minority culture and Han culture, resulting in the researcher in the process of research paid too much attention to the minority culture, neglect the educational problems to be studied.

Second choosing a paradigm should follow the principle of problem-oriented, rather than disciplines oriented. The purpose of educational research is to solve practical problems of education, the selection of research method according to the education problem. The foreign researchers with the consciousness of "selecting method led by problem" more, which has a reference to Chinese researchers. There are both value issues and factual issues in education study, the qualitative research is fit to value issues, and the quantitative research is fit to factual issues. Therefore, we should have a correct understanding of the different roles of two paradigms in the study of ethnic minority education, making the ethnic minority educational research Paradigm get integrate and change.

3.2 The Significance of Adopting the Mixed Research Methods in Ethnic Minority Educational Research

The mixed methods research as a new paradigm has been widely used in the study of foreign education, after a half a century of attempts and exploration. Needless to say, it is crucial to find a new educational research paradigm for improving the educational theory and solving the practical education problem.

First, the mixed methods research is based on pragmatism, using one or more research strategies of qualitative and quantitative research, it not only avoids the limitations of both, but also integrate the advantages of them, and improving the scientificity of ethnic minority educational research. In conclusion, the mixed methods research shows its three advantages at least. The first one is to verify a phenomenon with different research methods and design, realized complementary advantages and multivariate cross, and they can verify the results and interpretation of each other. Secondly, mixed methods research is supplemented by the results of a single method, compared with the results of another major method, which sought a detailed explanation, improvement and clarification. Third, different research methods will produce different results, and the contradictions arisen in these results often prompted the reconstruction of research problems and the generation of new theory. [9] The current study of ethnic minority education in China adopting the qualitative methods mainly at present, but the qualitative research methods are always mixed with a value tendency of researchers, and ultimately dominate the results, making the conclusions with subjective nature. There are even some researchers regard their personal opinions and theories as a part of qualitative research, which can not help but suspect the scientificity and objectivity of the research. Introducing the mixed methods research to ethnic minority education, it is better to reflect the normalization of the research process and the scientificity of the result.

Second, the mixed methods research to the significance of using these methods in ethnic minority educational research is to improve researchers' consciousness of problem-oriented. Ethnic minority educational research is an interdisciplinary study combined with ethnology and pedagogy, which the ethnology is reference for the anthropological research methods, and the pedagogy is also reference for the sociological research methods, whether anthropological or sociological study of research methods, can not meet the subject attribute of ethnic minority education. Mixed methods research, not only adapt to the current complex status of interdisciplinary research, but also concerns about the issues themselves, it can become a pointcut, consistent point and growing point of interdisciplinary research. In addition, the mixed methods research to make a research attract more experts from different disciplines to build interdisciplinary research platform around the research project. Driven by it, a series of innovation of organizational structure, project management pattern and resource allocation facilitated the multi-disciplinary integration, bring it's comprehensive superiority into full play. [10]

In conclusion, the mixed methods research combines the qualitative research and quantitative research with their respective advantages, should become a new paradigm of ethnic minority educational research. No matter what educational problem will be studied in future, the use of mixed research methods can improve science education research and its objectivity.

Reference:

- [1] [3] [4] Johnson, B. Onwuegbzie, J. Mixed methods research: a research paradigm whose time has come [J] Educational Researcher, 2004 (33):12-26.
- [2] Deng Meng, Pan Jian-fang. The Application of Mixed Methodology in Educational Research [J] .Educational Research and Experiment, 2002 (3): 56-61.
- [5] Dunkin interpretative Communication behaviorist - personal experience narrative, listening and understanding [M] Yong translation Chongqing: Chongqing University Press, 2004: 162.
- [6] Criswell research and design methods and choose quality [M] translation Arts - Qingdao: China Ocean University Press, 2009: 18.
- [7] YU Dong-sheng Qualitative Research: A Humanities Paradigm in Educational Research [J].Journal of Higher Education, 2010 (7): 63-70.
- [8] CHEN Bateer. Reflections on Object of Study on Education for Ethnic Minorities [J].Journal of Research on Education for Ethnic Minorities, 2012 (2): 5-8.
- [9] [10] Jiang Yi-min.Mixed Methods Research as "the Third Methodological Movement" [J] .Zhe jiang Social Sciences, 2009 (10): 27-37.