

Mixed Research: Exploring Postgraduate Students' Perspectives

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Abstract: Although qualitative and quantitative purists view their different research designs as unmixable, many researchers have found that mixed research integrates qualitative and quantitative research designs to answer research questions in as detailed a manner as possible. Thus, this study used survey, focus group discussions and qualitative interviews to explore the perceptions of 191 postgraduate students regarding the use of mixed research for their thesis and dissertation research. The study also explored the perceived barriers militating against postgraduate students' use of mixed research. Descriptive statistics showed that 77% ($n = 147$) of the respondents indicated positive perception regarding mixed research whereas 23% ($n = 44$) had negative perception and did not declare willingness to use mixed research for their thesis and dissertation. Thematic analysis of qualitative data indicated the rationale behind the mixed perception regarding mixed research. Among other factors, participants with positive perception declared the use of mixed research as the *in-thing*, they also consider mixed research capable of driving collaboration among researchers. Nevertheless, participants with negative perception admitted that *lack of strong local support* (i.e., the non-prevalence of local lecturers or researchers with expertise in mixed research) is a barrier militating against the use of mixed research design as well as a reason for their negative perception. They also noted the *feeling of alienation* from reading mixed research textbooks, written without the context of developing countries in mind, as another factor. The implications of these findings are outlined to advance the understanding that mixed research is attracting global appeal.

Keywords: Alienation, collaboration, developing countries, mixed methods, newcomer design.

1. INTRODUCTION

Postgraduate education is an important element of modern society. Students in postgraduate schools can acquire specialized knowledge, appropriate skills for modern economy and the capacity to produce new knowledge. Postgraduate education is also an avenue for advanced learning in several courses including research methods which equip students to become consumers or producers of research (CHE, 2009; Ebel, 2010; Ravid & Leon, 1995). Therefore, preparing postgraduate students to become research literate is a crucial aspect of postgraduate education (Ebel, 2010; Ravid & Leon, 1995). Mixed research or mixed methods research is a research design that integrates qualitative and quantitative research elements to address research problems to arrive at robust research outcomes (Johnson, Onwuegbuzie & Turner, 2007; Teddlie & Tashakkori, 2010). Although there are evidence indicating the use of mixed methods among postgraduate students in developing countries (Bass, Ryder, Lammers, Mukaba & Bolton, 2008; Dumbili, 2014; Tassew, Nicola & Bekele, 2008; Ukwuoma, 2013; Ukwuoma, 2014), academic discussions on the need for more researchers to use mixed methods design in developing countries have increased (Apesoa-Varano & Hinton, 2013; Dumbili, 2014).

As a result, it is important to identify postgraduate students' perceptions regarding the use of mixed methods to enable lecturers tailor their teaching to meet specific needs of postgraduate students. However, little or no study has been conducted to explore how postgraduate students in developing countries perceive the use of mixed research as well as

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problems militating against its use. Thus, the purpose of this study was to explore postgraduate students' perceptions regarding the use of mixed research for conducting their thesis and dissertation research as well as perceived barriers militating against the use of mixed research.

2. RESEARCH QUESTIONS

The following research questions were addressed:

- (1) What are postgraduate students' perspectives regarding the use of mixed research for their thesis and dissertation research?
- (2) What are the perceived barriers militating against postgraduate students' use of mixed research for their thesis and dissertation research?

3. THEORETICAL FRAMEWORK

Pragmatism clarifies how research designs can be mixed for optimal results (Hoshmand, 2003). To achieve a workable solution, classical pragmatism strives to locate a midpoint for dogmatism and skepticism because it respects philosophical positions (Johnson, 2008). Pragmatism believes in the practical nature of reality and considers human thoughts as determinant of human behavior (Huber, 1986; Mead, 1964). Accordingly, the perspectives of postgraduate students regarding research designs can influence their choice of research designs for their thesis and dissertation research. As adult learners, postgraduate students face different learning experiences with different perspectives (Knowles, Holton, & Swanson, 2005). As such, this study explored postgraduate students' perceptions regarding the use of mixed research for their thesis and dissertation research as well as perceived barriers militating against the use of mixed research.

4. REVIEW OF THE LITERATURE

Qualitative research paradigm is suitable for studying real-world setting to understand how people live their lives as well as to capture the richness of everyday living. Indeed, Qualitative design explores human problems in order to understand the views of individuals or groups through insider views that are subject to change and its data often come from interviews, observations, and document analysis (Creswell, 2009; Lapan, Quartaroli & Reimer, 2012; Patton, 2002; Yin, 2011). According to Patton (2002), interviews, observations and document analysis goes beyond questioning, watching or reading a document because qualitative research is systematic and rigorous.

For a researcher who uses the quantitative paradigm, his or her data comes from many sources including numbers (Johnson & Christensen, 2012). In other words, quantitative methods facilitate studies that require the collection of numeric data for analysis and interpretation. As noted by Onwuegbuzie and Mallette (2011), quantitative method helps a researcher to describe, explain and predict human phenomenon. According to Johnson and Christensen (2012), the quantitative researcher focuses on testing hypothesis and theories. In other words, quantitative researchers study phenomenon through experiments under controlled environments to facilitate generalization. Nevertheless, Sechrest and Sidana (1995) noted that qualitative and quantitative researchers have empirical dimensions in the conduct of their studies because they "describe their data, construct explanatory arguments from their data, and speculate about why the outcomes they observed happened as they did" (p. 78).

Admittedly, both paradigms (i.e., qualitative and quantitative research designs) offer researchers two important approaches to use for answering research questions. However, they view human behaviour so differently that they approach research from different worldviews. While the quantitative paradigm strive to identify a cause and effect relationship to facilitate prediction and generalization, the qualitative paradigm consider human behaviour as fluid and in constant flux. The qualitative paradigm is not so much interested in making generalizations but using quantitative design produces generalizable data that will not explain the underlying reasons for human behaviour. Indeed, qualitative design helps the researcher to understand the underlying reasons for human behaviour of research participants but does not facilitate generalization beyond the study participants (Adler, 1996; Creswell & Plano, 2007; Onwuegbuzie & Johnson, 2006).

Considering such shortcomings in qualitative and quantitative methods, many researchers from different fields have called for the integration of both methods within the same study as a way of addressing research problems to arrive at robust research outcomes (Johnson, Onwuegbuzie & Turner, 2007; Teddlie & Tashakkori, 2010). According to Johnson, Onwuegbuzie, and Turner (2007), “mixed research is an intellectual and practical synthesis based on qualitative and quantitative research” (p. 129). Teddlie and Johnson (2009) documented the various methodological stages that has occurred since the 19th century and pointed out that the year 1990 marked the formalization of mixed methods as a distinct research methodology.

Although quantitative and qualitative purists view their different paradigms and methods as unmixable due to the incompatibility theory, mixed methods research seems to be a research methodology that have come to stay because it reduces some of the deficiencies associated with using only qualitative or quantitative method (Howe, 1988; Sechrest & Sidana, 1995).

5. METHOD

This study explored postgraduate students’ perceptions regarding the use of mixed methods research for their thesis and dissertation research as well as perceived barriers militating against the use of mixed research. Thus, the researcher developed the Postgraduate Students Perception of Mixed Methods Questionnaire (PSPMM-Q) requiring responses on a five-point Likert scale, which was hand delivered to 191 postgraduate students (i.e., master’s and doctoral) majoring in arts, business, education and social science courses in five public universities in southern Nigeria. Although the respondents were a convenience sample, they were purposively selected as students of research methods courses to increase credibility. As such, they constituted an “information-rich source” (Patton, 1987, p. 58; Ukwuoma, 2015), capable of providing answers to the research questions of this study. Simple percentage analysis was carried out on the survey responses whereas the second phase of the study involved 10 focus group discussions and qualitative interviews with 10 participants who led the focus groups. Specifically, regarding the focus group discussions and interviews, themes emerged through constant comparison analysis (Strauss & Corbin, 1998).

6. RESULTS

As shown by survey results, 77% (n = 147) of the respondents indicated positive perception of the mixed methods paradigm and declared their willingness to use mixed method research techniques for their thesis and dissertation research if required by their research questions(s). The remaining 23% (n = 44) of the respondents indicated negative perception and did not declare willingness to use mixed methods approach for their thesis and dissertation research.

Research Question 1: what are postgraduate students’ perspectives regarding the use of mixed research for their thesis and dissertation research?

Themes that emerged with respect to the perspectives of postgraduate students regarding the use of mixed research were (a) collaboration, the idea that using mixed research drives collaboration among researchers; (b) vogue, the idea that using mixed research is fashionable in scholarship among research methods; (c) newcomer, the idea that mixed research recently arrived as a research method and might not be suitable for research in the local setting; and (d) nonconformity, the idea that refusing to accept that qualitative and quantitative methods can be combined represents a long standing worldview, an adherence to the incompatibility theory. Each of these themes is discussed in the following sections. All names are pseudonyms.

Collaboration. The use of mixed methods was perceived by some postgraduate students as capable of bringing postgraduate students together to work as a team. Participants who indicated such perception encouraged postgraduate students to view mixed methods as an opportunity to work with colleagues who will complement their strength particularly in their academic areas of deficiency. Paul Koko (Male, candidate for Master of Education in Education Management) observed

For once, I have seen a research design that will literarily force you to partner with someone who knows what you don’t know. I can do statistical analysis with my eyes closed but I am a blank slate when it comes to writing beyond the statistical analysis. I have worked with colleagues who have great expertise in doing manual qualitative data analysis. I

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see them deconstruct words and bring meanings I can only imagine. I respect them so much but I would not have had the privilege of working with them if not for mixed methods. I am learning so much as I collaborate with them. I handle statistical analysis but I know that our research questions will not be adequately answered if I was doing the study alone.

In addition, Esther Dorothy (Female, candidate for PhD in Science Education) noted that “using mixed methods research design has shown to be a credible platform for collaboration and further learning”.

Vogue. Mixed methods design was regarded as the *hot* research method which every postgraduate student should identify with. Josephine Okonkwo (Female, candidate for Master in Business Administration-Human Resource and Organizational Management) noted,

I guess it won't be an overstatement to say that mixed methods is hot, like real hot now because I have been to a couple of conferences and watched presentations where they used mixed methods, it's kind of cool and everyone seems to have something to benefit from it. I missed the mixed methods conference in the US last year but since then, more conferences have taken place, I even heard that nurses use mixed methods for studies in their field, even in faraway Japan, mixed methods practitioners are meeting and rubbing minds to better mixed methods research design. I believe it's the in-thing now, besides, when you combine both methods, I mean qual. and quant, in my field, it gives you a clearer picture and answers your questions comprehensively.

Concomitantly, all of the postgraduate students who indicated positive perception towards mixed research concurred that mixed methods is the current research design of choice for any researcher who is abreast with developments in his or her field. Additionally, they identified themselves as individuals who believe that mixed research play an important role in research. Similarly, Bricks Banibo (Male, Candidate for PhD in Reading Education) pointed out that

In literacy research, I can say for sure that before now, my preference was qualitative design until I read some works that used mixed methods and my eyes were opened. Trust me, linking qualitative and quantitative will give you a more credible outcome. But you must watch your study, pay attention from the research formulation stage to properly plan your study until the implementation stage. There are specific steps you have to follow. In fact, mixed methods is where everyone is at the moment.

Newcomer. The theme of newcomer showed that a few postgraduate students alluded to mixed methods as a new research methodology. As reasoned by Abel Tamuno (Male, candidate for Master of Arts in Linguistics) “I believe that mixed methods design is new, please correct me if am wrong, my program is taught based, not research so I am not sure”. Among the few who perceive mixed methods as a new research design, is another few who regard mixed method as a terminology from American scholars. As noted by Sandra Wike (Female, candidate for Master of Science in Political Science) “scholars in America have a way of hyping things up, mixed methods is new to me but it may have been there like forever, all of a sudden, say, like in the 90s or so, American scholars began to hype it up”.

Nonconformity. Postgraduate students whose responses prompted the assignment of the theme of nonconformity indicated complete adherence to the incompatibility theory. They are aware of mixed methods as a research design yet clearly stated their belief that qualitative and quantitative designs should not be mixed. As attested to by Peter Osakwe (Male, candidate for PhD in Philosophy) “Scholars should be allowed to be purists if they choose to, there are qualitative purists and there are quantitative purists, it should remain that way”.

Research Question 2: what are the perceived barriers militating against postgraduate students' use of mixed research for their thesis and dissertation research?

The following themes emerged regarding the perceived barriers militating against postgraduate students' use of mixed research design: (a) mentorship, the idea that opportunity for mentoring is lacking among postgraduate students in developing countries because they do not have access to established mixed methods scholars who can act as a support system unlike postgraduate students in developed countries; (b) alienation, the idea that most mixed research textbooks are replete with foreign examples making students struggle to make connections; and (c) knowledge, the idea that some postgraduate students do not have information regarding the existence of mixed methods design as a research paradigm. As with the previous research question, each of these themes is discussed below.

Mentorship. Postgraduates who indicated willingness to use mixed methods design expressed a lack of strong local support (i.e., lecturers or researchers with expertise in mixed methods research) among postgraduates aspiring to use mixed methods unlike their peers in developed countries. As observed by Tunde Mahmoud (Male, candidate for Master of Arts in Education), “none of the big names you hear in mixed method are names you recognize, it does not seem like they are interested in extending the efforts to sensitize people about mixed methods to Africa, I am member of a prominent organization that promotes mixed methods and we have had series of conferences in the US, UK, Canada, Australia and even in Asian countries but none have taken place anywhere in Africa”.

Alienation. The theme of alienation emanated from the perception of some participants who indicated that empirical literature involving the use of mixed research are published vigorously to meet the increasing need of postgraduate students in developed countries whereas little is done in that respect in many developing countries. Mathew Grace (Female, candidate for PhD in Science Education) pointed out that “majority of textbooks on mixed methods are filled with foreign examples making it difficult for local readers to make connections”.

Knowledge. Similar to the theme of *newcomer* in which participants perceived mixed methods as a new methodology as noted in the previous research question, lack of knowledge or information about mixed method design was believed to be a barrier militating against the use of mixed methods design by postgraduate students. As noted by Uchenna Nnenna (Female, candidate for Masters in Educational Evaluation), “how can one use a research design he or she is not aware of and your lecturers have not told you anything about it, probably because they are also unaware”. Thus, comments such as “I am not aware of mixed methods” and “mixed what?” contributed in the analytical decisions that resulted to the theme of *knowledge* as a perceived barrier.

7. DISCUSSION

The purpose of this study was to explore postgraduate students’ perceptions regarding the use of mixed research for their thesis and dissertation research as well as perceived barriers militating against the use of mixed research. As such, this study represents an initial attempt to document the views of postgraduate students regarding mixed research in the context of a developing country in West Africa. Yet, themes such as *collaboration*, *vogue*, *newcomer* and *nonconformity*, which emerged from this study appear to be common knowledge in mixed methods literature. Specifically, mixed methods design legitimates the employment of various approaches to answer research questions instead of limiting the choices a researcher can make. By so doing, the possibility of researcher-collaboration is created. Although purists view different research designs as unmixable, many research questions can be best answered by mixing research methods due to the inherent shortcomings of qualitative and quantitative methods when used individually. Indeed mixed methods is a fashionable research design (Howe, 1998; Johnson & Onwuegbuzie, 2004). However, themes such as *mentorship* and *alienation*, which pertained to perceived barriers militating against postgraduate students’ use of mixed methods design requires attention.

Limitations:

This study began as a take-home assignment for three postgraduate students but was abandoned halfway due to simultaneous changes in family background of all the three students. The abandonment stalled a proposed presentation of preliminary findings at an international professional meeting in the United States in 2014. Also affected were transcripts from interviews and focus group discussions, which were started and completed by different research assistants whose involvement were frequently interrupted. Such interruption may have resulted in lack of objectivity in reporting data on the part of the research assistants. Nevertheless, transcripts from interviews and focus group discussions were coded, analyzed and crosschecked by multiple parties to facilitate interrater credibility.

Implications:

The findings regarding *mentorship* and *alienation* reflected important factors that might be considered by mixed methods practitioners outside of developing countries to connect mixed methods enthusiasts in developing countries in ways that will be valuable to expand the conversation about mixed research. Therefore, special efforts should be made to encourage mixed methods practitioners to look beyond developed countries in their search for mentees. Authors of mixed methods textbooks should also use inclusive examples in their books to facilitate universal appeal among the readership of a broad

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audience. The leadership of Mixed Methods International Research Association (MMIRA) should champion such an educational campaign. Indeed, this study should be replicated in many developing countries to better understand the level of alienation aspiring mixed researchers feel when they use textbooks from unfamiliar backgrounds.

8. CONCLUSION

This study advances the understanding that mixed research is attracting scholars from many developing countries due to its inherent advantage in combining elements of qualitative and quantitative research to facilitate research outcomes with breadth and depth. However, postgraduate students in the context of a developing country are concerned regarding the issue lack of *mentorship* from established mixed research scholars and the feeling of *alienation* from reading mixed research textbooks that are not written with the context of developing countries in mind.

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