



## MIXED METHODS RESEARCH APPROACH: STRENGTHS AND SHORTCOMINGS

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### INTRODUCTION

Justification for merging qualitative and quantitative data dates back to the “paradigms wars” of the 1970s and 1980s, when social scientists assisting qualitative research proposed constructivism as an optional paradigm to the positivist paradigm of quantitative research (Reichhardt & Rallis, 1994). As Bazeley (2004) discussed, the different rationales employed for classifying “qualitative” and “quantitative” have connections to diverse paradigmatic perspectives.

Hall (2013) identified four commonly agreed categories of research paradigms: positivism, post-positivism, constructivism, and pragmatism. He explained that positivism and post-positivism are directly connected with quantitative research, and constructivism is directly connected with qualitative or interpretivist research. Maxwell and Mittapalli (2010) pointed out that methodological pragmatists argue that paradigmatic conflicts can be resolved based on practical utility; pragmatism has been promoted as the appropriate philosophical perspective for mixed methods studies (Johnson & Gray, 2010; Maxcy, 2003; Tashakkori & Teddlie, 2003b). Further, Pragmatism has often been identified in the mixed methods research literature as the appropriate paradigm for conducting mixed methods research (Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009; Onwuegbuzie & Johnson, 2006; Denscombe, 2008). The aim of this paper is to review the literature on strengths of mixed methods research approach and its shortcomings. Therefore, the following research questions were designed to guide the review of literature:

1. What are the strengths of mixed methods research approach?
2. What are the shortcomings of mixed methods research approach?

### METHODOLOGY

In the social sciences, the literature review method provides opportunity for critical evaluation of the opinions of different scholars on a specific subject which is of interest to the researcher at that moment. According to Snyder (2019) there are different types of review methods: systematic, semi-systematic, and integrative approaches. A semi-systematic review approach could be a good strategy as it maps theoretical approaches or themes as well as identifies knowledge gaps within the literature (Snyder, 2019, p.334). Therefore, in this study a semi-systematic approach was applied. This literature review mainly focused on research articles and books that investigated the strengths of mixed methods research approach and its shortcomings. Most of the reviewed literature was published in online journals. The selected articles and books were read, and the findings following the reviewed literature are presented based on the identified research questions guiding the study. Several methods can be used to analyse and synthesise findings from a semi-systematic review. These methods often have similarities to approaches used in qualitative research in general (Snyder, 2019, p.335). According to Braun and Clark (2006) thematic or content analysis is a commonly used technique and can be broadly defined as a method for identifying, analysing, and reporting patterns in the form of themes within a text. Accordingly, the document analysis was done using the thematic analysis.

### RESULTS AND DISCUSSION

#### **Strengths of Mixed Methods Research Approach**

When considering the strengths of mixed methods research approach, it is the third research group, and it moves past the paradigm wars contributing a rational and realistic option (Johnson & Onwuegbuzie, 2004). It also assists in how research approaches can be effectively combined (Hoshmand, 2003). It gives, philosophically and methodologically, an



instant and helpful middle position. Furthermore, it provides a technique for choosing methodological mixes which assist researchers to respond in a better way to numerous research questions (Johnson & Onwuegbuzie, 2004). As Morgan (2007) explains, the approach stressed in qualitative research is an inductive-subjective-contextual approach, while quantitative research stresses the approach of deductive-objective-generalisation.

However, Hall (2013) and Maxwell and Mittapalli (2010) argued that the pragmatist position undervalues the real impact of philosophical assumptions on research methods, an impact that is mainly important for merging both approaches, qualitative and quantitative. According to Mark, Henry, and Julnes (2000) ontological, epistemological, and axiological assumptions are real properties or “values” of researchers and necessarily affect researchers’ methods at some level. Maxwell and Mittapalli (2010) explained that these assumptions are lenses for viewing the world and help to reveal phenomena and generate insights that would be difficult to obtain with other lenses.

Research methods are not necessarily linked to a single philosophical stance and may be informed by one or more paradigms (Greene, 2002). As Symonds and Gorard (2010) highlighted, mixed methods indicate an approach in social science which promotes the combination of quantitative and qualitative methodological approaches. In addition, mixed methods research does not replace quantitative or qualitative approaches but reinforces the strengths and minimises the limitations of both approaches in a single research study (Johnson & Onwuegbuzie, 2004). These authors stated that if someone visualises a range with qualitative research at one end and quantitative research at the other end, mixed methods research would cover the large middle region. Onwuegbuzie and Leech (2004a) believed that mixed methods research can also assist in overcoming the division between quantitative and qualitative research, thereby forming a third research paradigm. Johnson & Onwuegbuzie (2004) stated:

[P]ragmatism rejects traditional dualisms (e.g., rationalism vs. empiricism, realism vs. antirealism, free will vs. determinism, platonic appearance vs. reality, facts vs. values, and subjectivism vs. objectivism) and generally prefers more moderate and commonsense versions of philosophical dualisms based on how well they work in solving problems. (p. 18)

As noted by Sechrest and Sidana (1995), expansion in the mixed methods (pragmatist) approach has the possibility of decreasing some of the issues linked with any method. Further, Johnson and Onwuegbuzie (2004) emphasised that by employing quantitative and qualitative methods in the same design, mixed methods research can integrate the strength of both approaches. Moreover, the mixed method approach examines related but diverse sides of an incident, resulting in an enhanced consideration of that incident (Greene, 2008; Tashakkori & Teddlie, 1998).

Morgan (2007) emphasised that the immense power of the mixed methods research approach of research methodology in social science is its emphasis on the link between epistemological concerns about the status of knowledge and scientific concerns about the methods used to generate that knowledge. Furthermore, Feilzer (2010) emphasised that pragmatism is focused on the direction of resolving realistic issues in the “real world” more than on assumptions about the status of knowledge.

### **Shortcomings of Mixed Methods Research Approach**

Like all current philosophies, mixed methods research approach also has some shortcomings (Johnson & Onwuegbuzie, 2004), including the tendency for basic research to receive less attention than applied research, since applied research might seem to create more direct and realistic outcomes. Furthermore, pragmatism might encourage incremental modification rather than more primary, structural, or radical modification in society and, although pragmatism has worked moderately well, many current philosophers still reject pragmatism because of its rational weakening as a resolution to numerous philosophical arguments. Pragmatic researchers may also occasionally be unsuccessful in giving a reasonable response to the query “For who is a pragmatic resolution helpful?” (Mertens, 2003). Further



Hall (2013) and Maxwell and Mittapalli (2010) emphasised that the pragmatist position undervalues the real impact of philosophical assumptions in relation to research methods, an impact that is mostly important for joining both approaches.

There are also numerous realistic problems that influence mixed methods research. Most notably, employing various methods enlarges the amount of time essential to complete a study and the cost of carrying out the study. A more significant realistic issue is linked to the level of abilities of the researcher and existing knowledge. High-quality mixed methods research needs a considerable operational awareness of the variety of methods being employed, researchers' assumptions, analysis methods and tools, and a skill to comprehend and explain findings resulting from the diverse methods (Patton, 1988; Reichardt & Cook, 1979). Similarly, the degree of understanding of the audience can be a problem; the mixed methods researcher requires methods which might be unknown to readers (Creswell, 1994).

However, most researchers agree that all research methods have intrinsic restrictions. Therefore, by methodically mixing alternative methods in a certain study, a researcher can compensate for uni-paradigmatic limits (Anchin, 2008; Gelo, Braakmann, & Benetka, 2008; Lonner, 2009). In fact, Johnson and Onwuegbuzie (2004) argued that it was time methodologists caught up with practising researchers; by lessening the divide between quantitative and qualitative researchers, mixed method research approach has a huge opportunity to encourage a collective accountability for achieving responsibility for learning excellence.

## CONCLUSIONS/RECOMMENDATIONS

When considering the strengths of mixed methods research approach, it is the third research group, and it moves past the paradigm wars contributing a rational and realistic option. Further, the impact that is mainly important is merging both approaches, qualitative and quantitative. Some researchers highlighted, mixed methods indicate an approach in social science which promotes the combination of quantitative and qualitative methodological approaches. Also, this approach has the possibility of decreasing some of the issues linked with any method focused on the direction of resolving realistic issues in the “real world” more than on assumptions about the status of knowledge. On the other hand, many current philosophers still reject mixed methods research approach because of its rational weakening as a resolution to numerous philosophical arguments. There are also numerous realistic problems that influence mixed methods research approach. Most notably, employing various methods enlarges the amount of time essential to complete a study and the cost of carrying out the study. Therefore, by methodically mixing alternative methods in a certain study, a researcher can compensate for uni-paradigmatic limits.

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