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Mixed Methods Research

Introduction

Although it has been conventional in the past to conduct research in just one paradigm, increasingly researchers have used a combination of both research paradigms in what is known as mixed methods research. This means that research could initially be qualitative and then in a follow-up stage be quantitative, or it could be initially quantitative and then in the next sequence be qualitative. In some large-scale research, it has also been the case that a qualitative approach is being used consecutively with a quantitative phase of research, by the same research project team.

There are a number of issues with the use of mixed methods. Probably the most important is that for many researchers using both paradigms together, is viewed as not philosophically appropriate. Such researchers argue that if the world is viewed as being one where objective truths can be found, how is this compatible with the world view that there is no such thing as objective truths and the world should be considered in relation to individual interpretations and is therefore subjective? Although this view has held sway for many years and still has many supporters, there are researchers across many of the fields of social science, including tourism and related subjects, that are willing to use, and in fact advocate, a combination of methods. Such researchers may, for example, use interviews initially and follow this up with a questionnaire survey. Despite these changes and the espousal of mixed methods by a number of researchers, you should be aware that many researchers, and this may include your supervisor and examiner, may not support this use of the combined approach. If you are thinking of using a mixed methods approach, it is probably a good idea to consult your supervisor.

Mixed methods research

The use of mixed methods, although not new, is a fairly recent phenomenon in tourism research (Khoo-Lattimore et al., 2019; Mason et al., 2010; Seakhoa-King et al., 2021) and there has been relatively little research employing mixed methods compared with the use of just one research philosophy, be it either quantitative or qualitative (Khoo-Lattimore et al., 2019).

Early research in tourism, going back to at least the 1960s, was largely quantitative (Mason, 2017). The starting point for much early quantitative research was government or company documents, and this approach was frequently supported by the primary research technique of the questionnaire survey (discussed in Chapter 4), which usually sought generalisable results from a sample of respondents who provided mainly short answers, via closed-ended questions, that could be statistically analysed. Reaction against this quantitative approach in tourism research was appearing during the 1970s in the work of sociologists and anthropologists such as Cohen (1972) and Dann (1977). For such researchers, the use of interviews and focus groups was relatively common (Lincoln and Guba, 1985), as they were interested in views and opinions and, as we have noted in Chapter 5, these can best be expressed in depth and detail using the words of respondents themselves, rather than answers generated via the use of author-designed, closed-ended questions, such as those on a questionnaire, it was argued (Creswell, 2018; Mason, 2014).

The discussion above outlines the nature of the two predominant research traditions used in tourism research over the past fifty years, but a third approach has been applied during the last thirty years or so. This, mixed methods research, is less well known than either of the two other approaches, partly because it is relatively new (Teddlie and Tashakkori, 2009). As Teddlie and Tashakkori, have indicated it presents an alternative to the quantitative and qualitative traditions by:

‘advocating the use of whatever methodological tools are required to answer the research questions under study’ (2009: 6).

In terms of research design, Tashakkori and Teddlie (2003) defined mixed methods research as where both quantitative and qualitative approaches are used in types of questions, research methods, data collection and analysis, while Tashakkori and Creswell, (2007) also stressed the links between the two main research traditions, when defining mixed methods as research where the investigator collects and analyses, and integrates findings, using both qualitative and quantitative approaches.

However, it should not be forgotten that the use of mixed methods is frequently viewed as controversial (Teddlie and Tashakkori, 2009; Timans, Wouters and Heilbron, 2019) and for some researchers combining quantitative and qualitative design, data collection and analytical processes is regarded as inappropriate, as the underlying philosophies are incompatible (Guba 1987; Smith and Heshusius, 1987).

■ Research philosophies

The research philosophy of *positivism*, as indicated in Chapter 3, and until fairly recently regarded as the dominant approach in tourism research (Khoo-Lattimore et al., 2019; Riley and Love, 2000; Walle, 1997), views reality as singular and independent of the researcher (Creswell 2018; Decrop 1999; Lincoln and Guba, 1985). It also regards reality as something which can be measured objectively, for example, by using a quantitative research instrument (Teddlie and Tashakkori, 2009; Davies, 2003). However, the research philosophy of *interpretivism* rejects the idea of a single objectively measurable reality, positing instead the existence of subjective, multiple constructed realities (Creswell 2018; Davies 2003; Lincoln and Guba 1985). The individuals involved in the research situation here, including the researcher, those being investigated, and the reader or audience interpreting the research, are regarded as the creators of these realities (Creswell, 2018). Interpretivists contend that multiple realities can only be captured through the employment of less rigid data collection techniques than generally used in quantitative research (Creswell and Plano Clark, 2007; Bernard, 2000).

The research philosophies of positivism and interpretivism also differ in their assumptions about the relationship between reality and the researcher (Creswell, 2018). Interpretivism has its roots in 'Verstehen' or the empathetic understanding tradition of the sociologist Max Weber, where it is argued that to understand peoples' behaviour, researchers need to put themselves in the place of the enquiry subjects (Jennings, 2011). Therefore, interpretivist researchers try to minimise the distance between themselves and respondents (Creswell, 2018). So, the interpretivist tries to get inside the respondents' minds and see the world from their view (Jennings, 2011). Interpretivists have been described as observers 'from the inside', the term used is '*emic*' (Teddlie and Tashakkori, 2009; Phillimore and Goodson, 2004; Walle, 1997). However, positivist researchers try to provide an independent, outsider's account of the research process, known as an '*etic*' approach (Teddlie and Tashakkori, 2009; Phillimore and Goodson, 2004; Walle, 1997) to ensure that the researcher's biases are excluded.

Although, the two research philosophies may seem incompatible, as stated above they are being increasingly combined in the social sciences, including in tourism (Timans et al., 2019; Mason et al., 2010; Seakhoa-King et al., 2021) and what makes it possible to use them together in one study, is the underlying philosophy of the majority of mixed methods research, that of '*pragmatism*' (Teddlie and Tashakkori, 2009). Pragmatism has been defined as a research approach that debunks and demystifies concepts such as 'truth' and 'reality' and focuses instead on 'what works' as the 'truth' regarding the concepts under investigation. Pragmatism rejects the either/or choices of the battles between paradigms and advocates the use of mixed methods in research (Tashakkori and Teddlie 2003: 713).

Despite mixed methods being a fairly new research approach, a number of different types can be identified. Creswell and Plano Clark (2007) identified twelve different classification systems in mixed methods, drawn from several fields in the social sciences, including health, education and behavioural studies. Creswell (2009) also suggested there are six types of mixed methods research. There are two major groupings in this sixfold typology, based on whether different research approaches are used sequentially or concurrently (Creswell 2009). In relation to sequential research, one approach begins with qualitative research and is then followed by a quantitative phase, and this is termed *sequential exploratory research* (Creswell, 2009). Research starting with a quantitative approach, followed by a qualitative phase is termed *sequential explanatory research* (Creswell 2009). The third type of sequential research uses a specific theoretical perspective from the beginning, which shapes the direction of the research, and the sequence of the two-phase research can begin with either a quantitative or a qualitative approach and Creswell terms this *sequential transformative research*.

In terms of the second major grouping of mixed methods research, Creswell indicates there is *concurrent triangulation*, where both qualitative and quantitative data are collected concurrently. In this approach, the intention is to give equal weighting to each of the qualitative and quantitative approaches. However, in contrast, in the *concurrent embedded approach*, there is one predominant approach, and the secondary supporting approach (quantitative or qualitative) is embedded within the main approach. Finally, in this six-fold typology, there is the *transformative concurrent approach* where the research is guided by the use of a specific theory in the collection of both quantitative and qualitative data, concurrently (Creswell 2009).