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## Is conducting interpretive studies within mixed methods research projects justified? Methinks not

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DOI: <https://doi.org/10.37074/jalt.2022.5.2.14>

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### Executive summary

My principal concern in this paper is with matters associated with interpretive studies conducted as part of research projects deemed by their authors to be of a mixed-methods type. The stress throughout is on the importance when conducting an interpretive study as part of a research project where the plan is to also conduct a quantitative study, that researchers should, from the outset, make explicit how their selected research techniques can address their chosen topic. In other words, there is a need to indicate how one's chosen area of research is connected, first to an underlying research paradigm, then to a specific theoretical position within the paradigm, then to a specific methodology consistent with the paradigm and the theoretical position, and finally to a set of methods for data gathering and analysis consistent with all of this.

**Keywords:** Grounded theory; interpretivism; mixed methods; qualitative research; theoretical sampling.

Regularly reading statements by researchers at the beginning of many published papers that the results reported in them were the product of a mixed methods research approach was a stimulus for writing this paper. When something is being mixed, various things are taken and combined to produce a new substance. Yet, in most reported studies defined by their authors as being mixed methods studies, rarely was anything mixed. If it had been then, the researchers would have found some way to respond to what we see as a challenge of taking two or more methods and mixing them. Deliberating on possibilities left me perplexed as to how, for example, it might be possible when engaging in a single quantitative study to take a questionnaire and a standardised observation schedule and mix them to come up with some kind of a hybrid method for collecting data, not to mention how, when engaging in what is termed a mixed methods' study it might be possible to take a method used to produce data for content analysis and a qualitative method like participant observation and attempt to do the same thing.

Then there are those who say they plan to conduct a quantitative study and then use some qualitative data to 'breathe life' into the statistics. On that, let us imagine the research focus is on teachers co-operating in the workplace. For the quantitative study, the use of an observation schedule based on an operationalised definition of co-operation is proposed. The qualitative study to follow will involve teachers discussing co-operation in the classroom. A major problem, however, is that one cannot assume that a correspondence, if any, will exist between participants' own definitions of what constitutes co-operation, to be revealed in interviews, and what the observation schedule based on operational definitions with behavioural indicators will reveal.

Concurrent studies are, in fact, what is often undertaken by those claiming they are conducting a mixed-method study. I see much value in experienced researchers engaging in those. However, I add that they should be clearly labelled as complementary to avoid confusion. I recognise, too, that research projects can be even more ambitious than accommodating just two complementary studies. For example, separate historical, comparative, philosophical, quantitative, and qualitative studies of a phenomenon can be conducted. The results of each can be presented later as separate chapters in a report or a book, concluding with a discussion on insights for extending existing theory and informing policymakers and practitioners. Those who proceed along such lines are usually well aware of arguments that relate to separating each study, including that engaging in quantitative research essentially involves testing hypotheses based on operationally defined concepts, while qualitative research is concerned with generating theory about participants' own 'definitions of a situation'. Because these two practices are so different, any suggestions that results yielded by each can be 'mixed together' makes little sense.

My principal concern in the rest of this paper is not with mounting a major critique of all aspects of works deemed to be mixed methods studies. Rather, my concentration is more specific, namely, on matters associated with interpretive studies conducted as part of research projects deemed by their authors to be of a mixed methods type. On that, I stress

that it is important when conducting an interpretive study as part of a research project where the plan is to also conduct a quantitative study, that researchers should, from the outset, make explicit how their selected research techniques can address their chosen topic. That cannot be achieved by building a research plan around a simple notion that first, we will use method one, and then one will use method two. Yet, a regular type of opening statement in published papers analysed goes like this: 'In this project, we adopt a mixed methods approach.' Such a statement is of value when it is subsequently made clear to readers what connection exists between it and the overall research question or aim detailed for the project. Usually, however, the connection is either weak or absent. That is because they lack an account of why the researchers addressed their research aims and/or questions in a particular manner adopted. And even when there is some elaboration, what is usually presented is often just additional statements like the researchers 'explored the question and/or aim', they 'interrogated a space', they 'explored participants' understandings', they 'sought stakeholders' perspectives on five focus areas', or 'key foci included relevant parents' views about education in general and their schooling experiences'. Such statements do not fulfil the need to illustrate how chosen research methods were part of a plan that led from not-knowing to knowing. Rather, they indicate that there was a sidestepping of providing convincing arguments showing how what was sought operated to get one to one's goal and how the component parts of the research design linked together.

A useful way to indicate how the latter is problematic, including in relation to the interpretive component of a research project, is to consider that authors of what they term mixed methods studies rarely elaborate on research paradigms and indicate in detail how their research was located within them. On that, I note that ideas related to the positivist and interpretivist paradigms have influenced the production of much research in education over the past 30 years or so. The principal interest of positivists is the pursuit of technical knowledge. Accordingly, their research focus is often associated with behaviourist psychology and functionalist sociology. The model of the 'typical' initial research strategy is to formulate hypotheses, set up and record observations, quantify the data, and present findings seen to provide knowledge that is objective, generalisable and usable to predict and control events.

In interpretivism, the emphasis is on social interaction as the basis for knowledge. Thus, researchers use their skills as social beings to try to understand the world as others understand it. Knowledge, in this view, is by mutual negotiation, generated as theory. Usually, too, it is specific to the situation investigated. Moreover, because multiple realities are assumed, theory generation requires engagement in interpretation. Thus, while the findings of positivist studies are based on researchers' 'definition of the situation', in interpretive studies, researchers set out to achieve the results of engagement in theory generation, where theory is understood as concepts and relationships between them.

To state the latter is not to say that positivists cannot use the theory they generate in an interpretivist study to

engage in related statistical studies. On that, though, it is important to realise that to do so, what is required would mean conducting a multitude of positivist studies as part of a comprehensive programme of research to explore all aspects of a phenomenon using theoretical constructs generated by just one interpretivist study. That criterion is not met by advocating for a research project where one qualitative study is followed simply by just one quantitative study.

Continuing still with my focus upon interpretive research conducted within studies deemed to be mixed method projects by their authors, it is instructive to point out also that while some engaged in superficial genuflecting to the ideas of particular 'masters' associated with such interpretivist research sub-fields as symbolic interactionism, phenomenology, and hermeneutics, rarely have they given indications how those ideas translated into research planning steps through the fundamental logic of research design. In other words, there has been a failure to indicate how the chosen area of research connected, first to an underlying research paradigm, then to a specific theoretical position within the paradigm, then to a specific methodology consistent with the paradigm and the theoretical position, and finally to a set of methods for data gathering and analysis consistent with all of this.

A major source of related perplexity generated on reading many studies of the type under investigation relates to the use of the terms 'perceptions', 'attitudes', and behaviour'. Regarding 'perceptions', statements like "we explored pre-service and in-service teachers' perceptions", "we inquired into middle leaders' perceptions of their work", and we explored "perceptions of past, present and future lives" appear regularly in the papers analysed. The overall problem here is that the concept of 'perception' has roots in Gestalt psychology, which

...emphasises the central importance of 'perception' in human behaviour: The human being acts according to how the situation is perceived. Gestalt psychologists have attempted to isolate various principles of perception in order to better understand how the individual organises the stimuli he or she confronts. Gestalt psychology, as such is entirely psychological in its orientation (Charon, 2001, p. 21).

Micro-sociology, on the other hand, is intimately intertwined with the interpretivist position of sociological social psychology (as opposed to psychological social psychology), which "is distinct from much of psychology by de-emphasising the person as cause; it is distinct from much of sociology by de-emphasising the power of social patterns and society at large" (Charon 2001, p. 21). Rather, the focus is on 'social interaction', which can be defined as the on-going, back-and-forth action that participants take towards one another.

A similar issue arises regarding the use of 'attitude'. That concept, central within positivist psychology, is usually defined as one's predisposition to act towards a class of objects in a certain manner when engaged with them. Moreover, the view is that attitudes can be carried around

from situation to situation, with the external environment acting as a stimulus for them to become manifested in behaviours. Interpretivists reject this as it views individuals as passive, as not being in control of their actions, and as being directed by an attitude. Rather, the view of interpretivists is of individuals as active beings, and they stress also the importance of considering people's 'active definitions of situations.'

Interpretivists also view all human action as meaningful and to be interpreted and understood within the context of social practices. That, in turn, results in speaking of 'human action' rather than 'human behaviour'. Relatedly, while positivists refer to events as having 'causes' and to 'human behaviour' as the outcome of external influences, interpretivists speak of 'human actions' as having 'reasons.'

Another source of confusion centres on the use of a variety of terms simultaneously in relation to the central focus of the research. Even when the terms 'perceptions', 'attitudes', and 'behaviour' are excluded, there can still be a problem in relation to others. When, for example, it is stated that the research is about areas like understandings, meanings and perspectives, a reader is prompted to go to the results section of a paper and see what is reported in relation to each of these. Rarely, however, is that section organised in such a manner, or are the results related back to even any one of those supposedly central concepts. An associated failure overall is that there is a lack of recognition that at the heart of interpretivism is the need to focus on one core concept in a manner somewhat akin to the notion of seeing the cell as being at the heart of the study of biology or the atom as being at the centre of the study of chemistry.

Within interpretivism, the concepts of 'understanding', 'meaning' or 'perspective' are core. Thus, a central aim in an interpretivist study can be framed as being about the generation of theory regarding the meanings (or the understandings, or the perspectives) participants hold regarding something. Each, I hold, means largely the same thing, and each can be used. At the same time, just one of them, whichever it is, should be used, and used consistently, since to use them interchangeably in any one study only adds further to confusion.

I favour the use of 'perspective.' It is central within the Chicago School of Sociology, the most dominant tradition in interpretivist research. Moreover, those scholars associated with that tradition defined the term in a manner that facilitates breaking it down into a set of components to detail a set of research guiding questions that allow an investigation to proceed systematically. Such a process, however, is rarely engaged in by many researchers. Instead, they imply that the choosing of a theoretical position proceeds in a lock-step manner following an identification of both a research aim and research questions. To subscribe to this is to ignore the intimate relationship that exists between a paradigm and one's theoretical position.

To put the latter another way, an understanding of the paradigm and the theoretical position should influence the phrasing of the research aim and questions in any research plan. Instead, what is usually presented is a set of research

questions arrived at from an understanding of the practical world only. As a result, it is left to the reader to somehow work out what logic, if any, might have been used by the researchers to move considerations from giving a brief statement regarding a research paradigm and an associated theoretical position, to arrive at a set of questions posed.

I now elaborate on how the latter matter can be addressed when adopting the concept of a perspective as central within a general interpretivist study, referring where appropriate to key theorists in the field from the 1950s. Charon (2001) defined a perspective as consisting of words used by an observer to make sense of situations, adding that it "is an absolute basic part of everyone's existence", and "acts as a filter through which everything around us is perceived and interpreted" (p. 6). A related notion is that perspectives develop when people choose between alternatives (Potts, 1997). Additionally, if certain situations occur repeatedly, a perspective may become a fixed part of an individual's way of dealing with reality (Becker et al., 1968, p. 35). Also, there may be a need to distinguish between immediate and long-range perspectives. Furthermore, while any given situation may not be interpreted in the same manner by everyone, group perspectives – "when people see themselves as being in the same boat" (Becker et al., 1968, p. 36) – can develop and become taken-for-granted ways of thinking.

Finally, not only can perspectives change many times throughout one's life, they can also change from situation to situation (Potts, 1997, p. 20). On this, interpretivists speak of perspectives as being 'situational'. Charon (2001, p. 27) elaborated: "In the classroom my perspective is that of teacher-sociologist; in my home it becomes father or husband; on a fishing trip it changes to 'seasoned fisherman'". Each situation, she concluded, requires taking a different role, which means having a different perspective.

Interpretivist research on participants' perspectives can only be conducted, of course, if the issue to be investigated is one with which participants engage in a meaningful way. Assuming it is, then the central research aim for a project can be stated along the following lines:

- The aim of the study is to generate theory on teachers' perspectives on parental involvement in school decision-making.
- The aim of the study is to generate theory on the perspectives of French teachers teaching in Scotland on what is effective teaching.
- The aim of the study is to generate theory on the perspectives of key stakeholders on the quality assurance policy implemented in the university sector.

These formulations may appear very restrictive. Misgivings in that regard, however, dissipate on realising how a perspective can be broken down into a set of components that allow for the great range of aspects of a research area to be explored,

The latter practice requires that the stated research aim be rephrased as an overall research guiding question. Considering this in relation to the first research aim detailed above, it is not a matter of simply stating: What are teachers' perspectives on parental involvement in school decision-making? To do that would be to presuppose that 'out there' exists a suite of already-identified perspectives and that what one needs to do is identify those that relate to one's participants. Rather, an interpretive research project is planned on realising that there is no such suite and that, thus, there is a need to generate it. Hence, what is really needed is an overall research guiding question like the following: What is the most robust theory we can generate regarding teachers' perspectives on parental involvement in school decision-making?

And yet, without an accompanying set of sub-guiding questions, no defensible way presents itself on how to progress further with data collection. On that, detailing specific questions in a positivist fashion is not an option. Rather, a comprehensive set of questions is required to guide conversations across the range of areas related to the phenomenon under investigation such that data collection can yield a wide range of participants' perspectives to draw upon to address the central research aim.

Blackledge and Hunt (2018) have proposed that a perspective on any phenomenon has four intertwined components, namely, one's intentions regarding it, strategies one says one uses to try to realise those, what one sees as significant about one's intentions and strategies, and what outcomes one expects from one's activity. Elsewhere (O'Donoghue, 2018), I have contended that participants need to be canvassed on all four areas, that any less is insufficient, and that there are no more because of the 'closed' nature of the model. Furthermore, because interpretivists emphasise the capacity of individuals to be able to account for their actions, it is crucial that the researcher also constantly probes, asking one why one says what one does.

Applying then what has been argued by again focusing on the first of the research aims detailed above, yields the following:

#### *Research aim*

- The aim of the study is to generate theory on teachers' perspectives on parental involvement in school decision-making.
- *Central guiding question*

What robust theory can be generated on teachers' perspectives on parental involvement in school decision-making?

#### *Research-guiding questions*

1. What are the teachers' intentions regarding parental involvement in school decision-making? What reasons do they give for these?

2. What are the strategies the teachers say they use when dealing with issues related to parental involvement in school decision-making? What reasons do they give for this?

3. What significance do teachers say they attach to their intentions and strategies in relation to parental involvement in school decision-making? What reasons do they give for this?

4. What outcomes do teachers say they expect from embracing their intentions and strategies in relation to parental involvement in school decision-making? What reasons do they give for this?

From here, it is possible to generate a series of conversation questions in relation to each guiding question. Those need to be such that one is confident they have the potential to engage participants in as wide a range of conversations as possible on each guiding question. There is a need also to be open to the possibility that some of them may be unproductive with some participants and should not be pursued with them, while unanticipated ones may suggest themselves during interviewing and should be pursued where productive, including by returning of those interviewed earlier.

Then there is the matter of how many participants should be in a research project. On that, one regularly reads statements like 'through in-depth, semi-structured, interviews, the qualitative study examined the perspectives of nine parents of early school leavers about the factors contributing to young people from this area leaving school early.' I consider such statements to be problematic since it is reasonable to ask why a few more individuals or a few less were not studied. In making that point, I recognise that because interpretive studies are ideographic, they are also, by definition, restricted to understanding events or human actions within specific cultural contexts. Thus, each appropriately stated research aim needs to be followed by a sub-title that goes something like this: 'an interpretivist study in four Montessori schools in one county.' Immediately, that places a limit on the number of participants required. Equally, I recognise that there is no obligation to work with a large number located within such limits since the aim is to generate theory rather than test hypotheses. To put it simply, a much smaller number of participants is required to generate theory, understood as heuristic devices or 'tools' by which we can speak intelligently about the phenomenon under investigation than is required if we are trying to discover 'findings' that are generalisable from the results of a study of a sample of a population to a total population.

Knowing, however, that there is no requirement to work with a large number still does not indicate how many are appropriate. The challenge is a methodological one, where methodology is viewed as a strategy, plan of action, process, or design to link paradigm-guided questions with methods. On that, the methodology most solidly related to the interpretivist paradigm is that of 'grounded theory', which is best defined as a research strategy whose purpose is to



guide theory generation from data collected and analysed simultaneously.

With whom, then, should researchers commence their interpretivist grounded theory research? A standard approach is to imagine the ideal research setting as “one in which the observer obtains easy access, establishes immediate rapport with participants, and gathers data directly relating to the research interests” (Taylor & Bogdan, 1989, p. 19). Being ‘ideal’, of course, means that the situation to which there is a desire to gain access does not exist fully, yet researchers should do their best to approximate it. Having done so, they can commence by interviewing one participant and engaging in analysis.

The latter involves generating concepts and comparing and clustering them using the methods of ‘constant comparison’ and ‘constant questioning’ (Charmaz, 2014). As concepts are generated from close examination of data, they are given labels that form the basis for categorisation schemes. While these category-names are abstractions, the labels are generally sufficiently graphic that the nature of the material to which they refer is clear. Operating in this manner, one moves on to the next participant and the next one, in each instance building analysis upon analysis by generating hypotheses about categories and about their relationships and interrelationships, and then testing those with the data being generated.

The research can be commenced with any participant from the defined group. But where to from there? The grounded theorist’s response is captured in the notion of ‘theoretical sampling’ where “the actual number of ‘cases’ studied is relatively unimportant. What is important is the potential of each ‘case’ to aid the researcher in developing theoretical insights into the area of social life being studied” (Taylor & Bogdan, 1989, p. 83). Thus, after completing an interview, researchers should seek out a participant they feel may be very different on criteria deemed important. Through engaging time after time in this ‘negative case selection’ (Mikkelsen, 2017), they can get close to uncovering the full range of perspectives held by those in whom one is interested. Moreover, one has an idea one has reached this point when interviews with additional people yield no new insights. In other words, ‘saturation’, or the inability to develop categories further in terms of their properties and dimensions no matter how much new data are collected, is reached.

Experienced researchers adopting the latter approach appreciate that they may stop at any level of analysis where saturation has been reached in relation to just some categories being generated. They are also comfortable with the notion that researchers may formulate and reformulate their research, developing it out where they judge that it is yielding a poor return for effort and contracting it where it appears to be too broad in scope. A beginner, however, often seeks from the outset to work within a clearer set of parameters, not least so that a reasonable prediction can be made regarding the length of time required for conducting the research.

A way of establishing parameters is suggested by Stainback and Stainback’s (1984, p. 299) “pragmatic approach” labelled “modified analytic induction.” It involves the researcher defining a population tightly, thus limiting the applicability of the theory generated to a specifically defined group. Alternatively, a researcher may determine the number of cases he/she has the resources to handle and test the theory being generated in relation to those cases only and making no claim that it is inclusive beyond the defined set. Within this bounded system (Adelman et al., 1976), it will still, of course, be necessary to engage in theoretical sampling. Relatedly, it is possible to narrow a study’s focus by defining the area of interest from the outset as relating to a population small enough for all members of it to be potential participants.

Another issue centres on how the concept ‘triangulation’ is often embraced uncritically by various authors. Originating in radio triangulation, the source of radio broadcasts is determined using directional antennas set up at the two ends of a known baseline. By measuring the angle at which each of the antennas receives the most powerful signal, a triangle is erected and, using simple geometry, used to pinpoint the source at the vertex of the triangle opposite the baseline. Post-positivists, opposed to a view that positivism could best approximate truth, deduced that the concept constituted a useful metaphor to demonstrate that such approximation could be enhanced if data were collected using at least three sources.

It makes no sense, however, to speak about ‘triangulation’ in interpretive studies. Yet, some say they engaged in it because they used data from two or more sources. Some also even say that their triangulation allowed them to validate data through cross verification. However, the process has nothing to do with the interpretivist’s aim to generate theory. Instead, the reason, and the only one, for interpretivists to seek to generate data by using more than one research method is to enrich the quantity and quality of data available for theory generation.

Finally, while what is reported in studies like those analysed is usually referred to as theory, in nearly all cases what is presented is general themes alone, illustrated with quotations from data. Moreover, the exposition is usually in the past tense, even though it is meaningful for social scientists to only present the constructs they develop in the present tense. After all, cases are studied, not to be reported as such, but to yield data from which theory can be generated. Moreover, a full-blown social science theory contains not only a comprehensive range of concepts generated but also their properties and dimensions, all organised as an integrated framework of relationships. Within the latter, too, one may find concepts related in the form of typologies, propositions, and models. These can be used in a comparative fashion to alert researchers to what might be common in similar phenomena under different conditions. As ‘substantive theory’ it could, alongside many other similar studies of the phenomenon in question examined in different types of situations, contribute also, in the fullness of time, to ‘formal theory.’

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