



# Introduction: Considering Qualitative, Quantitative and Mixed Methods Research

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## Learning Goals

After reading this chapter, you should be able to:

- Distinguish between qualitative, quantitative and mixed methods research;
- Gain familiarity with the meaning of ontology and epistemology;
- Consider the difference between positivist and interpretivist research;
- Consider idiographic versus nomothetic research interests;
- Consider the difference between inductive and deductive perspectives;
- Start to consider yourself in the field of research.

## Grappling with Quantitative and Qualitative Approaches to Research

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Mental health and emotional wellbeing have not enjoyed the priority awarded to physical health. They are usually deprived of funds and qualified staff, and despite one in four of us estimated to experience mental health problems, mental health research has ‘lagged behind many other areas in terms of priority, funding, and therefore discoveries’ (Department of Health and Social Care 2017, p. 2). This book approaches research with mental health *practitioners* in mind. We are particularly aiming at counsellors, psychotherapists and counselling psychologists who—over the last 30 years—we have witnessed often feel marginalised and ‘homeless’ as researchers. Therapists are natural investigators, exploring, tracing and considering underlying meanings—it is what we do. Most of our research students enter their research training with this enthusiasm for finding out. In our studies into therapists’ relationship to research (Bager-Charleson et al. 2018) one therapist said, for instance, that ‘reading and writing—finding out—it’s like breathing for me’, whilst another summed up her sense of enjoyment as follows:

- » ‘Every day I talk about research [I am] really passionate about the process, the exciting process about not knowing anything and then finding out, experiment with ideas and then finding new knowledge...’

However, regrettably we also notice obstacles for therapists wanting to take their research further. One therapist explained, ‘when I ask my manager in the NHS about doing more research training – I’d love to do a PhD – she just says “Nevine, you’re already overqualified for what you do, you’re a counsellor...”’

A reoccurring theme is a sense of ‘gap’ between an emotional, embodied and intuitive practice on the one side and research often construed as detached and rational on the other. In the same study (Bager-Charleson et al. 2019) a psychoanalytic therapist working within the NHS says:

- » When I think of research I associate it with feeling lonely, the largest upset is to not find research which reflects what I work with. Being a psychotherapist can feel like being a second-class citizen in the NHS. Cognitive, neuro, biological, outcome measures – there’s a whole bunch of people I can contact and speak to. But I’m not working within those approaches ... I struggle with the idea that emotions are measurable, and that I need a scientific practice. We can’t work with the mind without

thinking about what we mean by the mind ... I mean, in the 80s I worked in - well what best would be described as asylums, which were quite sickly, immoral and abusive really. Those things, the bigger picture is massively important to me.

Therapists are often caught between two contrasting schools of thought, with an evidence-based approach emphasising the importance of certainties contrasted by social constructionist-inspired approaches emphasising differences with socio-cultural, linguistic and gender-related interests. Both argue for transparency and accountability, but from conflicting angles. For more therapists to enjoy and take part in research, we believe it is important to become familiar with both, whilst enjoying freedom and confidence in building on questions, problems and approaches which best suit the therapists and clinical practice. We regard the divide between the two approaches to mental health and emotional wellbeing as important to acknowledge and explore, and will refer to concepts such as ontology, epistemology and methodology to highlight a longstanding dispute about 'reality' and relevant knowledge. Ellis and Tucker (2015) assert, for instance, that the 'scientisation of psychology as a discipline has to some extent repressed its emotional history' (p. 180), and in the following chapter, we will look more closely at emotions and embodied awareness as sources of knowledge. Whilst largely adopting a pragmatic approach to research ourselves, we do believe that an emotionally repressed research runs the risk of repressing clinical practice if it shuns, rejects and detaches itself from the messiness and ambivalence of life.

On the other hand, our studies (McBeath et al. 2019; Bager-Charleson et al. 2019) also highlight the risk for therapists of being marginalised in research contexts through lack of knowledge. Whilst counselling psychologists often bring basic knowledge in quantitative research from their first degree, counsellors and psychotherapists tend to be unprepared for this kind of research. As one of our participants said, 'I don't agree with measuring, at least I think I don't. I don't really know anything about it. I've assumed that that kind of research doesn't work for me but to be honest I don't understand it and haven't even tried it. I'd actually like to learn more'.

This book is written for our research students as well as for various research participants to support them in making informed decisions. It advocates an overarching pluralist framework on research, with approaches chosen from qualitative, quantitative, mixed methods and pluralistic research. We have invited researchers to share key features of their methodology and approaches to therapy-related matters. This means that the chapters will differ in tone, emphasis and focus. We hope by this to encourage you to connect with *your* research problem, interest and approach to issues directly or indirectly related to your clinical practice to further our knowledge in the field of mental health and emotional wellbeing in general.

### Reflection

We have interspersed the text with Reflection and Activity sections to encourage you as a reader to reflect on theories discussed and apply them to your own work and experiences.

## Considering Research Approach

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Today's research discourse is often punctuated by concepts such as evidence, efficacy and effectiveness. We will return to these concepts. In this introduction consideration will be given to some of the differences and similarities between quantitative and qualitative research, which we believe is a significant distinction to become 'at ease' with, to dispel some of the perceived mysteries within research. We aim to briefly introduce some of the advantages and disadvantages of both approaches. There will also be an introduction to some of the philosophical assumptions that underpin quantitative and qualitative research methods, with specific mention made of ontological and epistemological considerations. These two terms broadly relate to assumptions about the nature of existence (*ontology*) and how we might gain knowledge about the nature of existence (*epistemology*).

## Your Methodology

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In counselling and psychotherapy most research activity is commonly associated with either qualitative or quantitative research methods, although there is a growing trend in so-called mixed methods approaches wherein a blend of quantitative and qualitative techniques is utilised.

The importance of ontology and epistemology considerations within a research context will have a significant bearing on the choice of research methodologies and the perceived relationship of researchers to their research. Although not often made explicit, the choice between quantitative and qualitative methods reflects contrasting ontological and epistemological positions. In choosing quantitative or qualitative methods (or both) the researcher is tacitly revealing a choice of preferred research philosophies. Scotland (2012) makes a key point which all researchers should keep in mind when he states that 'It is impossible to engage in any form of research without committing (often implicitly) to ontological and epistemological positions' (p 10).

## Ontological and Epistemological Considerations

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There are different ontological positions. Two commonly used positions are *realism* and *relativism*. Briefly, the differences between realism and relativism reflect significantly differing assumptions about the nature of reality and existence. A realist view assumes that there is an objective reality out there that exists independently of our cognitions, perceptions or theories. In contrast, a relativist view proposes that reality, as we know it, is constructed inter-subjectively through the social creation of meaning and understanding; there is no objective reality within a relativist view. The American poet Muriel Rukeyser (1968) succinctly captured the essential heart of relativism with these few words:

» The universe is made of stories, not of atoms. (p 486)

From a research perspective these two contrasting ontological positions raise some profound questions which we believe are relevant when formulating research in areas such as mental and emotional wellbeing: What is reality and what kind of knowledge is helpful, relevant and regarded as ‘true’ or valid—and why?

An important starting point is how we position ourselves in our research. Does the researcher believe they are independent of the reality of their research or do they believe that they somehow participate in the construction of the reality of their research? These are two very basic and different research philosophies and they signal very different relationships between the researcher and their research.

From an epistemological perspective there are competing philosophies. An often-used distinction is between *positivism* and *interpretivism* (or constructionism, or social constructionism) that follow from and complement the ontological positions of realism and relativism. A positivist stance assumes that reality is objective and that casual factors between events can be discovered by scientific observation. An interpretivist stance assumes that reality is subjective and that reality can only be observed as approximations or estimates. Finally, positivism assumes that social phenomena and their meanings are fixed, whilst interpretivism assumes that social phenomena and their meanings are constantly being revised through social interaction and language.

The difference between positivism and interpretivism is really quite striking. Crotty (1998) has eloquently captured the difference with reference to trees. Here is his account of positivism:

- » That tree in the forest is a tree, regardless of whether anyone is aware of its existence or not. As an object of that kind, it carries the intrinsic meaning of treeness. When human beings recognize it as a tree, they are simply discovering a meaning that has been lying in wait for them all along. (p 8)

And here is Crotty’s account of interpretivism:

- » We need to remind ourselves here that it is human beings who have constructed it as a tree, given it the name, and attributed to it the associations we make with trees. (p 43)

As Scotland (2012) has commented, ‘a tree is not a tree without someone to call it a tree’.

The differing epistemological positions of positivism and interpretivism have significant implications for research activity. Quantitative methodologies are grounded in positivism where the researcher is a scientist, an empiricist interested in facts, testing hypotheses and confirming causality. In contrast, qualitative methodologies are based on interpretivism and constructionism wherein there are no realities that pre-exist independently of our perceptions and thoughts. The qualitative researcher adopts a subjective stance and is intimately involved in the co-creation of knowledge through the exploration and discovery of meaning. In one sense the quantitative researcher sees individuals as numbers whereas the qualitative researcher sees individuals as people.

It is important at this point to briefly mention the philosophy of *critical realism*, which, in part, grew from a reaction against positivism. Originally formulated by Bhaskar (1975, 1998), critical realism is an alternative philosophical position to the

classic positivist and interpretivist paradigms and, to some extent, offers a unifying view of reality and the acquisition of knowledge. Critical realism can be viewed as being positioned somewhere between positivism and interpretivism. Critical realism accepts the principle of an objective reality independent of our knowledge. It also accepts that our knowledge of the world is relative to who we are and that, ultimately, our knowledge is embedded in a non-static social and cultural context.

Critical realism has several key—sometimes complex—concepts. One proposition is the notion that reality is layered into different domains, that is, the empirical, the actual and the real. This ‘stratified ontology’ allows both quantitative and qualitative research approaches to co-exist and to have more relevance in certain domains than in others. Critical realism also acknowledges the complexity of the world and recognises ‘the fallibility of knowledge’, which refers to the probability that our knowledge of the world may be misleading or incomplete. From a research perspective a key element of critical realism has been neatly captured by Danermark et al. (2002) with these words:

- » there exists both an external world independently of human consciousness, and at the same time a dimension which includes our socially determined knowledge about reality. (pp. 16–17)

Critical realism has been regarded as a philosophical position which would promote both quantitative and qualitative approaches as being important and relevant within research (e.g. McEvoy and Richards 2006).

## Quantitative and Qualitative Research: Comparisons

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Given the significantly differing ontological and epistemological assumptions that underpin quantitative and qualitative research methods it is not surprising that they differ in a number of important ways. Perhaps most obvious is the scale of research and, ultimately, the numbers of participants involved in research activity. Because quantitative and qualitative research methods are focused on different outcomes or potential knowledge claims they require quite differing numbers of participants.

The objective, scientific basis of quantitative research which is focused on hypothesis testing needs large numbers of participants to offer statistical confidence in research findings and also in the power to generalise from those findings. Surveys are a classic example of a large-scale quantitative approach where several hundred participants could be involved (e.g. McBeath 2019). In contrast, the exploratory and interpretative nature of qualitative research methods, where the focus is to reveal the social reality and lived experience of individuals, requires only a few research participants and often fewer than ten (Smith and Osborn 2008).

The sharp contrast in the numbers of research participants associated with quantitative and qualitative methods is sometimes described using the terms *nomothetic research* and *idiographic research* respectively. Nomothetic research is about the pursuit of ‘objective’ knowledge through scientific methods, which tends to involve collecting large amounts of quantitative data from large numbers of peo-

ple. The objective of nomothetic research is to establish rules and classifications that can be generalised to wider groups of people. In contrast, idiographic research focuses on the individual who is considered to be unique, and thus there can be no meaningful search for rules and generalisations.

As we will explore further in later chapters, one of the key characteristics of qualitative research is its emphasis on the individual and the meanings that individuals ascribe to experiences and various social phenomena. This focus on the exploration of *experience* through meaning, at an individual level, is in sharp contrast to quantitative approaches where the views and characteristics of individuals are aggregated together in large numbers and manipulated using a variety of statistical procedures. A shorthand way to characterise the differences between the two approaches is to say that qualitative research seeks to explore experience and meaning whereas quantitative research seeks to confirm meaning.

One important difference between quantitative and qualitative methods concerns the basis of their reasoning or logic. Quantitative research methods are associated with *deductive reasoning* or a top-down approach where data are tested to confirm an existing theory or hypothesis. Qualitative research methods are associated with *inductive reasoning* or a bottom-up approach. Hence, in this case data and observations are examined with the potential to suggest the emergence of theory. An example of a specific qualitative approach that captures the inductive approach is *grounded theory*, described by Glaser and Strauss (1967) as ‘the discovery of theory from data systematically obtained from social research’. This will be explored more in Chap. 6 by Elvis Langley on grounded theory in regard to his study on ‘hearing voices’.

Quantitative and qualitative research differs in several other respects. For example, qualitative research is really quite process orientated whereas quantitative research tends to be results orientated. By the nature of their enquiry quantitative research findings tend to be generalisable whereas qualitative research findings are not. The output of qualitative research is usually narrative whilst that of quantitative research is often statistical. Finally, sample size is usually important in quantitative research and aspires to follow a random sampling method, whereas sample size in qualitative research is seldom a critical issue and sampling usually follows a purposive method.

In seeking to differentiate the two research methodologies it is sometimes suggested that qualitative research is essentially ‘non-numeric’ whilst quantitative research is wholly numeric. In reality the situation is not so clear-cut, and Sandelowski (2001) has challenged the identification of qualitative research as non-numeric, calling it the ‘anti-number myth’. In fact within qualitative research there are established methods for transforming qualitative data into a quantitative representation to aid pattern recognition and interpretation. The basic Likert scale is a good example of ascribing quantitative values to qualitative data. Here subjectively judged qualitative statements such as ‘strongly agree’ and ‘strongly disagree’ are assigned numerical values to aid analysis.



As noted earlier, one crucial difference between quantitative and qualitative research is the role of the researcher. In quantitative approaches the researcher is essentially a detached figure who is considered to be independent and separate from the object of study. From this position it follows that the values and opinions of the quantitative researcher are considered to have no real influence on the research process. Denscombe (1998) has described quantitative research as a 'researcher detachment' approach.

In contrast, the qualitative researcher is inherently immersed within the research process and is the research instrument trying to capture the lived experience of individuals. There is an interactive relationship in qualitative research between the researcher and research participants where, ultimately, there is a co-creation of meaning. In qualitative research the researcher's own biography and values are recognised as a contributing factor in the research process and the interpretation of meaning. Evered and Louis (1981) have neatly captured the differing vantage points of the researcher in quantitative and qualitative research by respectively characterising the two research approaches as 'inquiry from the outside' and 'inquiry from the inside'.

### Good Questions

It is important to emphasise that there is no sensible question to be asked about whether quantitative or qualitative research approaches are better than one other. Quantitative and qualitative research methods have their value in the context in which they are applied; they both allow different sorts of questions to be asked and they offer different perspectives on exploring research topics.

Consider the notion of compassion fatigue amongst counsellors and psychotherapists and how this might be researched. From a quantitative perspective an online survey could be delivered to large numbers of practitioners, which might well provide useful information such as the perceived incidence of the phenomenon and how practitioners might respond to it (e.g. supervision, reduction of workload). However, as useful as such information might be, what would be missing is detail around such key questions as: *What does compassion fatigue feel like? How does one recognise compassion fatigue? Do different people have different definitions of compassion fatigue?* Questions such as these are much more appropriately addressed using *qualitative research* methods such as Interpretative Phenomenological Analysis where meaning is distilled from the experience of individuals.

One way to think of the difference between quantitative and qualitative research is to consider what types of information they may provide. Quantitative methods with a key emphasis on measurement are good at describing phenomena and confirming facts. In contrast, qualitative research methods are good at exploring phenomena and illuminating their meaning. Malterud (2001) described the aim of qualitative research: 'to investigate the meaning of social phenomena as experienced by the people themselves'.

## Combining Questions

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Of course there doesn't need to be an either or choice; the two approaches can be combined to create a potent and flexible research method. So, for example, in researching the phenomenon of compassion fatigue it might well seem sensible to conduct some initial qualitative research, which could give some understanding of what might be meant by the term. This could be a first stage of a research effort, which subsequently informs the content of a later second-stage quantitative survey. Thus, in this case the differing approaches would be complementary, with each offering a different set of research advantages. What is being proposed here, in the example of researching compassion fatigue, is a mixed methods research approach.

The potential advantages of mixed methods approaches has been eloquently articulated by Landrum and Garza (2015):

- » We argue that together, quantitative and qualitative approaches are stronger and provide more knowledge and insights about a research topic than either approach alone. While both approaches shed unique light on a particular research topic, we suggest that methodologically pluralistic researchers would be able to approach their interests in such a way as to reveal new insights that neither method nor approach could reveal alone (p 207).

Historically, views on the appropriateness of quantitative and qualitative research methods have become polarised and captured by the notion of a 'paradigm war' (Ukpabi et al. 2014). In a mixed methods approach there is no inherent conflict, with quantitative and qualitative research methods able to make their own distinctive contribution. The growing popularity of mixed methods approaches to research seems to make perfect sense. For example, whilst a large survey with all its quantitative processes may provide compelling evidence of the incidence of a condition such as social anxiety, it is unlikely to be able to offer an explanation as to why individuals suffer from this condition and, most importantly, what it might feel like. And that is precisely why a complementary qualitative element of research is warranted.

## This Book

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As editors of this book, we both feel very much aligned with the mixed methods approach to research and have used it in several different contexts. These include subject areas such as the motivations of psychotherapists (McBeath 2019), the relationship between psychotherapy practice and research (Bager-Charleson et al. 2019) and psychotherapists' views around academic writing (McBeath et al. 2019). The wealth and richness of data that research in these areas has produced has confirmed the power and unifying principles of mixed methods research. However, there is an undoubted challenge and that is to do with the acquisition and competent use of both quantitative and qualitative research methodologies. It takes time and commitment to become competent in both areas but the rewards can be compelling.

In a considered review of the historical notion that qualitative and quantitative research methods are somehow competing or incompatible approaches, Landrum and Garza (2015) have championed what they term ‘methodological multiculturalism’. In using this term there is an underlying recognition that both qualitative and quantitative approaches have specific strengths and limitations and these need to be respectfully acknowledged. It is also recognised that neither approach is ‘privileged’ and that ‘methodological plurality’ actually allows researchers to more fully encounter and describe the phenomena under study.

### Summary

This introductory section has from the outset emphasised the issue of considering the philosophical assumptions which inevitably underpin and influence research activities. The chapter refers to the importance of reflecting upon our own ontological and epistemological positioning, which as researchers we cannot escape but only choose. We have also aimed to reject some of the historical and false dichotomies that have been popular over time in association with research activity and approaches to research. This introduction suggests the need to consider ways to approach research, both philosophically and in methodology, which are inclusive rather than exclusive. In this regard specific mention has been made of the benefits of the mixed methods approach. Throughout this book, the issue of research-supported practice will remain an underlying theme. Research-based practice will be considered based on multiple routes into research. We hope this book encourages you to familiarise yourself with approaches ranging from phenomenological experiences to more nomothetic, generalising and comparing foci such as outcome measuring and RCTs, which in turn, is best understood with a basic knowledge of statistics. Our book revolves around a broad range of research, including approaches where inductive—deductive combinations—as in grounded theory together with pluralistic and mixed methods approaches—provide multi-layered understandings to develop rich and realistic support in the field of mental health and emotional wellbeing. Primarily, we hope that the chapter will encourage you to start considering your own research. Enjoy!

### References

- Bager-Charleson, S., McBeath, A. G., & du Plock, S. (2019). The relationship between psychotherapy practice and research: A mixed-methods exploration of practitioners’ views. *Counselling and Psychotherapy Research*, 19(3), 195–205. <https://doi.org/10.1002/capr.12196>.
- Bager-Charleson, S. du Plock, S and McBeath, A.G. (2018) Therapists Have a lot to Add to the Field of Research, but Many Don’t Make it There: A Narrative Thematic Inquiry into Counsellors’ and Psychotherapists’ Embodied Engagement with Research. *Psychoanalysis and Language*, 7 (1), 4–22.
- Bhaskar, R. (1975). *A realist theory of science*. Hassocks, England: Harvester Press.
- Bhaskar, R. (1998). *The possibility of naturalism*. London: Routledge.
- Crotty, M. (1998). *The foundations of social research*. London: Sage Publications.
- Danermark, B., Ekstrom, M., Jakobsen, L., & Karlsson, J. C. (2002). *Explaining society: Critical realism in the social sciences*. New York: Routledge.

- Denscombe, M. (1998). *The good research for small –Scale social research project*. Philadelphia: Open University Press.
- Department of Health and Social Care (2017). A Framework for mental health research.
- Ellis, D., & Tucker, I. (2015). *Social psychology of emotions*. London, United Kingdom: Sage.
- Evered, R., & Louis, R. (1981). Alternative Perspectives in the Organizational Sciences: 'Inquiry from the Inside' and 'Inquiry from the Outside'. *Academy of Management Review*, 6(3), 385–395.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine de Gruyter.
- Landrum, B., & Garza, G. (2015). Mending fences: Defining the domains and approaches of quantitative and qualitative research. *Qualitative Psychology*, 2(2), 199–209. <https://doi.org/10.1037/qap0000030>.
- Malterud, K. (2001). The art and science of clinical knowledge: Evidence beyond measures and numbers. *The Lancet*, 358, 397–400. [https://doi.org/10.1016/S0140-6736\(01\)05548-9](https://doi.org/10.1016/S0140-6736(01)05548-9).
- McBeath, A. G. (2019). The motivations of psychotherapists: An in-depth survey. *Counselling and Psychotherapy Research*, 19(4), 377–387. <https://doi.org/10.1002/capr.12225>.
- McBeath, A. G., Bager-Charleson, S., & Abarbanel, A. (2019). Therapists and Academic Writing: 'Once upon a time psychotherapy practitioners and researchers were the same people. *European Journal for Qualitative Research in Psychotherapy*, 19, 103–116.
- McEvoy, P., & Richards, D. (2006). A critical realist rationale for using a combination of quantitative and qualitative methods. *Journal of Research in Nursing*, 11, 66–78. <https://doi.org/10.1177/1744987106060192>.
- Rukeyser, M. (1968). *The speed of darkness*. New York: Random House.
- Sandelowski, M. (2001). Real qualitative researchers do not count: The use of numbers in qualitative research. *Research in Nursing and Health*, 24(3), 230–240. <https://doi.org/10.1002/nur.1025>.
- Scotland, J. (2012). Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive and critical research paradigms. *English Language Teaching*, 5(9), 9–16. <https://doi.org/10.5539/elt.v5n9p9>.
- Smith, J. A., & Osborn, S. (2008). *Interpretative phenomenological analysis*. In J. A. Smith (Ed.), *Qualitative psychology* (pp. 53–80). London: Sage.
- Ukpabi, D. C., Enyindah, C. W., & Dapper, E. M. (2014). Who is winning the paradigm war? The futility of paradigm inflexibility in Administrative Sciences Research. *IOSR Journal of Business and Management*, 16(7), 13–17.