Invited keynote address to the Postgraduate Research Conference, Deakin University, 4-6 October 2002. The views I express here were defensible at the time of writing. Quote at the risk of knowing that I change my mind frequently.

Blank spots, blind spots, and methodological questions in postgraduate research

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Abstract

Researchers in doctoral programs are expected to make 'a substantial original contribution to knowledge' (Australian Qualifications Framework Implementation Handbook, 2002, p. 57) and must therefore address various types of questions about 'knowledge' and its production. These can include ontological questions (what is the nature of the knowable?), epistemological questions (what is the relationship between the knower and the knowable?), and methodological questions (how should the inquirer seek knowledge?). Because researchers usually produce knowledge within a particular epistemology, methodological and epistemological questions are closely interrelated. In this presentation I will explore some alternative approaches to generating and framing epistemological and methodological questions in ways that are strategically useful in organising postgraduate research.

Introduction[1]

Research is difficult work, whether you are new to it or whether you have been doing it for some time. The academic literature on doing research is not always helpful because there are many terms and concepts used in discussing research that might seem to be used inconsistently or even contradictorily. For example, there is clearly no universal agreement as to what researchers mean by *methodology*. This should not be particularly surprising. Like most other occupational groups, academics often have different perspectives on the same events or issues and different interpretations of the same word(s) and/or similar concepts.

Many people who are new to research (in any discipline) find the technical language – or what they call jargon – overwhelming. But what sounds like jargon might just be the words specific to a particular area of work. Lawyers and engineers, teachers and paramedics, athletes and politicians all have specialised languages – their professional talk might sound like jargon to an outsider.

Words like 'epistemology' and 'methodology' cannot be avoided in talking about research. However, you should also be aware that words that refer to complex areas of human understanding cannot be reduced to simple, fixed, unambiguous definitions. We can no more provide a precise three-line definition of epistemology than of everyday words like 'love' or 'justice' – these are terms that will always be the subject of exploration, speculation and debate. Morwenna Griffiths (1998) has some good advice in this respect:

> it is important for researchers coming new to the field to be aware that any brief explanation is bound to be partial. The exact meanings of terms like 'methodology', 'method' and 'technique' are inherently unstable, precisely because of the depth of argument about them. This situation can be confusing to anyone new to the field. If you, the reader, are feeling it is somehow your fault that you can't find one clear definition that works for everything you read, then you need to know that you can abandon the search.

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[1] I have adapted several passages in this presentation from an unpublished paper by Dr Trevor Gale, 'Methodological "maps" and key assumptions: a framework for understanding research', presented at the Postgraduate Research Weekend, Graduate School of Education, Faculty of Education and Creative Arts, Central Queensland University, 16-17 May, 1998. I am grateful to Dr Gale for his permission to adapt parts of his paper, but I take responsibility for the forms of words I have chosen to use here.

> Instead, you need to develop an understanding of the range of use, and to be clear about your own understanding, as a result (p. 43).

The explanations I offer here are just some among many ways in which concepts such as research' and 'methodology' can be understood. Not all researchers (including your supervisors) will necessarily agree with at least some of what I will be saying.

What do I mean by 'research'?

In my experience, many people embark on research with very stereotyped views about what counts (and does not count) as 'research'. Some people associate research with experimentation and observation, with laboratory or fieldwork, and with measurement and statistics. For others it might conjure up images of doing surveys, questionnaires or interviews. I prefer to take an open and inclusive view of its meaning.

The *Oxford English Dictionary (OED)* defines research as an 'endeavour to discover new or collate old facts etc. by scientific study of a subject, [or] course of critical investigation'. But the *OED* determines common English usage by such means as sampling the ways in which words are used in *The Times* (London) newspaper, so this definition might be rather conservative.

Another way to approach the meaning of research is to say that it is anything that people who call themselves researchers actually do that is recognised by their peers as research. According to this reasoning, research is not only 'scientific study' and/or 'critical investigation' but also includes *any* means by which a discipline or art develops, tests, and renews itself. All of these meanings are complementary (and overlap) and all have a place in universities. For example, I have had personal experience of doing research in the biological sciences, literary criticism, and education, and I have no difficulty in seeing how each of these – as both a discipline *and* an art – requires the production of relevant 'facts' (about organisms, learners, texts, and so on) and 'critical investigations', and that each also needs modes of inquiry that contribute to its development and renewal.

Another way of thinking about what research means is to consider how those who do it identify a given activity as research. There are three common ways in which communities of researchers see the work they call research as being distinctive, namely, that it (i) adopts a characteristic theoretical perspective, (ii) pursues a characteristic central question or problem, or (iii) adopts a characteristic method.

For example, some researchers in the social and behavioural sciences adopt theory-building methods similar to those that characterise research in the natural sciences. For example, experimental psychologists try to establish propositional 'truths' by statistically analysing measurements of behavioural responses to particular stimuli. Research of this kind provides the basis for the theoretical propositions that we find in introductory psychology textbooks, such as: *behaviours that are rewarded (reinforced) are more likely to recur.*

There is also a history of approaches to research in all disciplines that address questions of a practical or technical kind: for example, in education we perennially address the practical problem of what *should* be taught and learned; the museum sciences continually focus on technical questions of how natural and cultural artefacts can best be conserved and preserved. Some of these questions are philosophical (or conceptual and/or speculative) and are explicitly focused on normative questions rather than empirical ones.

Other approaches to research emphasise the refinement of inquiry methods that might be used by the discipline or art. In education, methodologically defined research includes, for example, action research, deliberative inquiry, *currere* (autobiographical curriculum inquiry) and discourse analysis. Such research might be particularly appropriate to *practical arts* (teaching, medical diagnosis, jurisprudence) where the emphasis is on making defensible

decisions in specific circumstances rather than on constructing theoretic generalisations that are more universally applicable. Nevertheless, the scope of method-driven research currently includes areas within both theoretic and practical disciplines. For example, within the natural sciences, characteristic techniques or methods delimit the problems and subject matters of research areas such as radio astronomy or X-ray crystallography and their research goals include the development and improvement of technique and method. However, in these cases the most valued outcome of research is propositional knowledge and this theoretic end tends to take precedence over the methodic means.

In practical arts the main purpose of research can be the reconstruction and refinement of method through its engagement with appropriate subject matter. Method itself then becomes both an end and the means of research. Literary critics exemplify both kinds of methodic research. In so far as they are concerned with the *advancement* – rather than the routine practice – of their art, their major purpose is the establishment and defence of critical methods. However, although some critics see the development of method as a means of arriving at generalised propositions about writers, readers and texts, others focus their attention on elaborating and refining the method itself, which is to be the means by which the practical art goes about its business – the pursuit of unique understandings in unique works of literature.

Methodic research is particularly appropriate to advancing the practical arts of many professions – the arts of pursuing unique understandings in the unique circumstances of practice.

Framing research questions: producing truth or reducing ignorance?

Jon Wagner (1993) argues that 'ignorance is a better starting place than truth for assessing the usefulness of educational research' (p. 15), an argument that contrasts with more conventional understandings of research as the pursuit of truth claims (and as the performance of rituals designed to produce evidence in support of such claims). Wagner demonstrates that understanding research as the reduction of ignorance rather than the production of truth has implications for 'how we think about educational research, how we teach it, and how we frame and support relationships between researchers and their subjects' (p. 15).

Educational researchers often invoke truth and truthfulness – and related concepts such as validity and reliability – as criteria for judging research, but Wagner reminds us that over-valuing the pursuit of truth privileges means in relation to ends:

> some research projects are of little use to researchers or practitioners even though they reflect our highest ideals of truthfulness in data collection and analysis… When we judge a research project solely on the apparent truthfulness of its parts, we neglect its larger purpose: generating new knowledge about education… To understand when research is likely to achieve this purpose, educational researchers must begin with ignorance, not truth (p. 15).

Ignorance is a useful criterion for evaluating research because it focuses attention on users. Truth claims tend to be framed in terms of their generalisability and their independence from historical contingency and context. However, statements about ignorance refer to particular people in particular locations, times and contexts.

For example, Wagner points to the 'extraordinary interest in the social context of learning' that developed among US educational researchers during the mid- to late-1980s. Wagner's explanation for how and why this occurred raises the question of *whose* ignorance these researchers were reducing:

> Why is it news that social contexts influence the conduct and outcomes of instruction? Would any lay person consider this to be news? Perhaps some, but not many. It certainly wasn't news to the sociologist Willard Waller, writing in 1932. But it has become news to psychologists – at least some of them – and by far the largest number of [US] educational researchers have psychology as their home discipline (p. 18).

Blank spots and blind spots

Wagner offers a particularly useful heuristic for making sense of educational research by distinguishing between two types of ignorance, 'blind spots and blank spots' (p. 16). These are configured by two functions of what Wagner calls the 'materials' of educational research:

> In constructing knowledge about education and schooling, educational researchers use a variety of different 'materials.' These include data of various forms and types, direct experience, concepts and theories of their own or those developed by others, and so on. Some of these materials may help educational researchers answer questions that they have already posed. Others may stimulate them to ask questions they haven't asked before (p. 16).

In Wagner's schema, 'materials relevant to questions already posed can be seen as filling in *blank spots* in emerging social theories and conceptions of knowledge'; in other words, what we 'know enough to question but not answer' are our blank spots. Materials that provoke researchers 'to ask new questions illuminate *blind spots*, areas in which existing theories, methods, and perceptions actually keep us from seeing phenomena as clearly as we might'. What we 'don't know well enough to even ask about or care about' are our blind spots (p. 16).

Wagner's example of US educational psychologists beginning to ask questions about the social context of learning during the 1980s shows how blanks spots and blind spots are configured by the collective ignorance of disciplinary communities. The social context of learning has long been an explicit theme of analysis in the sociology of education and thus pointed to various blank spots – aspects of educational practice that sociologists knew enough to question. But social context only became 'visible' to educational psychologists when they realised 'that the categories guiding their research kept them blind to important aspects of the phenomena they were trying to investigate' (p. 18). One of Wagner's conclusions makes a particularly important point about the relationship of research to the other types of work we do in education:

> Research itself is a form of learning, and research reporting a form of teaching. By helping to define what people don't know and might learn next, ignorance is a central concern in both of these processes (p. 21).

Wagner concludes that, in practice, 'we know much more about ignorance than we do about truth. That's part of what makes truth so problematic as a criterion for assessing the usefulness of knowledge generated through educational research' (p. 22). My own view is that, by sustaining the conversations through which we illuminate each other's blind spots and blank spots, we might be able to learn enough about ignorance for particular people in particular situations to use it to make sense of educational research.

Methodology, method, technique

The word 'methodology' is derived from the Greek words *metá* (with, after), *hódos* (the way) – sometimes combined as *méthodos* (a following after) – and *lógos* (reason, account, reckoning). Thus, etymologically speaking, research methodology is the reasoning that informs particular ways of doing research, or the principles that inform its organisation. Some

researchers refer to their methodology as a *conceptual framework* or the *assumptions* that guide their research.

Many people use 'method' and 'methodology' as if they were interchangeable terms. Sandra Harding (1987) identifies another complication by observing that, in a number of methodological debates,

> discussions of method (techniques for gathering evidence) and methodology (a theory and analysis of how research should proceed) have been intertwined with each other and with epistemological issues (issues about an adequate theory of knowledge or justificatory strategy)… 'method' is often used to refer to all three aspects of research [that is, method, methodology and epistemology] (p. 2).

Harding's reasoning provides a relatively clear distinction between methods and methodologies:

> A research *method* is a technique for (or way of proceeding in) gathering evidence. One could reasonably argue that all evidence-gathering techniques fall into one of the following three categories: listening to (or interrogating) informants, observing behaviour, or examining historical traces and records. In this sense, there are only three methods of social inquiry (p. 2).

In other words, methodology refers to a theory of producing knowledge through research and provides a rationale for the way a researcher proceeds. Methodology refers to more than particular techniques, such as 'doing a survey' or 'interviewing students'. Rather, it provides reasons for using such techniques in relation to the kind of knowledge or understanding the researcher is seeking.

Harding equates 'method' with 'technique' whereas some other scholars distinguish between them. As mentioned above, the word 'method' comes from the Greek *hódos*, meaning 'the way'. From this perspective, research methods are *modes or ways of conducting research inquiry*. The word 'technique' comes from the Greek word *tekhne* and implies *expertise or the art or craft of performing a particular task*. It also implies a connection with a larger technology and thus signals that particular research methodologies and methods guide research techniques.

Epistemology and methodology

Harding sees methodology as being related (and conflated/confused) with methods (on the 'practical' side of doing research) and with epistemology (on the theoretical or 'thinking' side of doing research). Epistemology is, in turn, related to ontology. For example, Egon Guba (1990) identifies three types of questions that may be used for generating inquiry paradigms:

- ontological: what is the nature of the knowable (or 'reality')?
- epistemological: what is the nature of the relationship between the knower (the inquirer) and the known (or knowable)?
- methodological: how should the inquirer go about finding out knowledge?

Researchers produce knowledge within a particular epistemology and, therefore, methodological and epistemological questions are strongly interdependent. Indeed, as James Joseph Scheurich and Michelle Young (1997) argue, 'research, as techniques and processes, is "housed" within epistemology rather than within ontology or axiology, though… any

particular epistemology is interdependent with a particular ontology or axiology' (p. 12).[2] Although my focus here is on methodological questions, I want to emphasise that they cannot be extricated from epistemological questions, whereas I believe that it is possible to delineate standpoints in research where ontological and axiological questions can remain in the background. For example, I take the position that reality is unknowable except through its relationship with us and, therefore, that ontological questions can only be distinguished from epistemological questions as an academic exercise. In other words, from where I stand, the distinction between epistemological and ontological questions is not strategically useful for organising approaches to inquiry.

Continuities and consistencies between ontological, epistemological, and methodological positions and perspectives are often identified as research traditions and paradigms. For example, Martin Terre Blanche and Kevin Durrheim (1999) identify three social science research paradigms (p. 6; see table 1).

Table 1: Positivist, interpretive and constructionist paradigms

	Ontology	Epistemology	Methodology
Positivist	Stable external reality Law-like	Objective Detached observer	Experimental Quantitative Hypothesis testing
Interpretive	Internal reality of subjective experience	Empathetic Observer intersubjectivity	Interactional Interpretation Qualitative
Constructionist	Socially constructed reality Discourse	Suspicious Political Observer constructing versions	Deconstruction Textual analysis Discourse analysis

Different scholars take slightly different approaches to mapping the complex territory of research. For example, Patti Lather (1992) identifies four 'paradigms of postpositivist inquiry' based on the 'categories of human interest that underscore knowledge claims' (p. 89; see table 2).

Table 2: Paradigms of postpositivist inquiry

Predict	Understand	Emancipate	Deconstruct
positivism	interpretive naturalistic constructivist phenomenological hermeneutic symbolic interaction microethnography	critical neo-Marxist feminist race-specific praxis-oriented Freirean participatory	post-structural postmodernist post-paradigmatic diaspora

Another useful way of thinking about where methodology fits into the research process is provided by John Van Maanen's (1995) suggestion that doing research involves 'fieldwork, headwork, and textwork' (p. 4). Table 3 charts some of the activities that each of these three types of work might entail.

[2] an axiology is a theory of value.

Table 3: Fieldwork, headwork, and textwork

fieldwork (enacting methods)	headwork	textwork
constructing representations of the objects of inquiry (methodically *producing* data) by…	thinking about…	producing texts, stories, narratives including, for example…
• listening to (and/or interrogating) informants • observing behaviours • examining historical records and traces	• methodological issues – theories, analyses, and criticisms of how research should proceed • epistemological issues – theories of knowledge (and their adequacy) and justificatory strategies	• testimonies to field work and head work • critiques and/or alternative readings of other texts

As Table 3 suggests, methodology is one aspect of headwork in research – *thinking* about the questions, problems and issues of how research should proceed. Note that Table 3 implicitly distinguishes between *methodologies* in research and methods. Conventional approaches to research training often emphasise (and, in my view, over-emphasise) fieldwork – methods and techniques for producing and analysing data – and pay much less attention to headwork and textwork. You will also note that I often refer to *producing* data rather than to 'gathering' or 'collecting' data. I do this deliberately, because I want to draw attention to the idea that data are not 'out there' waiting to be 'discovered', but are actively produced or constructed by researchers. This also alerts us to the significance of recognising that research is an embodied *performance* and that methodological (dis)positions and preferences have a tacit or personal dimension that might be difficult (or impossible) to represent in conventional ways, such as in the standard research report.

Methodological questions

Methodological questions are questions about how your research should proceed. They include asking yourself such questions as the following:

- what theories, understandings, conceptualisations and representations of inquiry (of question-asking as such) determine how my research should proceed (or is proceeding)?
- how adequate are these theories, understandings, conceptualisations and representations?
- whose are they?
- why are they privileged (e.g. in particular bodies of research literature)?
- why should *I* privilege them?

Why ask methodological questions?

There are several reasons for asking methodological questions, the most obvious of which is to help you to carry out research yourself, either to satisfy the requirements of higher degree studies or to obtain a better understanding of some aspect of your own work. However, most of us who work in education 'consume' more research than we produce: we devote more time

to reading and interpreting accounts of other people's research (and evaluating its applicability to our own work) than to actually doing and writing up research ourselves (this is, of course, an oversimplification, since there are many instances where the distinction between 'reading research' and 'doing research' is meaningless, as is the case with critical literature reviews which constitute research in their own right).

In summary, you should ask methodological questions for some or all of the following reasons:

- the disciplinary requirements/norms of thesis production may require you to do so
- you should be prepared to answer such questions if/when asked
- they might be (and often are) intrinsically interesting
- they might be helpful/generative in advancing your inquiry

When should you ask methodological questions?

Methodological questions need to be asked constantly – or at least periodically. You need to ask them at all stages of an inquiry:

- when formulating research questions
- prior to data production
- during data production (are they changing?)
- after data production (in the course of displaying, reducing, analysing and interpreting data)

How do you ask methodological questions?

Asking methodological questions is a disposition rather than a procedure – a reflexive process of continually situating, framing and characterising the procedural status of your inquiry: how is it going? is it OK or not OK?

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