

Praiseworthy pragmatism? Validity and action research

Kevin W. Hope BSc MA PhD RN

Lecturer, School of Nursing, University of Manchester, Manchester, UK

and Heather A. Waterman BSc PhD RN OND

Professor of Nursing and Ophthalmology, School of Nursing, University of Manchester, Manchester, UK

Submitted for publication 22 November 2002

Accepted for publication 22 May 2003

Correspondence:

Kevin W. Hope,
School of Nursing,
Midwifery and Health Visiting,
Coupland III,
University of Manchester,
Manchester M13 9PL,
UK.

E-mail: kevin.hope@man.ac.uk

HOPE K.W. & WATERMAN H.A. (2003) *Journal of Advanced Nursing* 44(2), 120–127

Praiseworthy pragmatism? Validity and action research

Background. Action research has been promoted as a suitable methodology for nursing, but is located in a discourse that challenges its claims of validity. This discourse, influenced by positivism, is similar to that which qualitative researchers have faced.

Aim. This article contributes to theoretical discussion of the validity of action research.

Findings. Because of similarities, the emergent debates around the reconceptualization of validity in qualitative research are outlined, prior to a consideration of the relative arguments in relation to action research. Three avenues of thought are discerned: that no criteria are required; that parallels with other schools are appropriate; and that new concepts specific to one school of thought should be developed.

Conclusions. Because of its ethical and action-oriented principles, action research offers the potential to address validity issues that remain problematic to 'pure' qualitative researchers, and it can be claimed that its pragmatic approach is validity-enhancing. We argue for the rejection of naïve rule-based formulae and for recognition of the impact of contextual and pragmatic concerns, so that the potential for the added value of action research might be realized.

Keywords: action research, pragmatism, research methods, validity, nursing

Introduction

A key test for any researcher is to produce valid findings. One's perspective on such a position can, however, be influenced by the theoretical stance adopted. In this paper we explore the relevant positions as they are outlined in relation to action research, which has been promoted within nursing as having utility for addressing the theory–practice gap (Holter & Schwartz-Barcott 1993, Meyer 1993, Waterman *et al.* 1995).

Hart and Bond (1995) point out that the use of action research has progressed along different paths, namely community development programmes, education and health.

These developments help to explain the variations evident in the literature when it comes to pinning down the essence of action research.

Hart (1996) defines action research as 'problem focused', 'context specific' and 'participative' and states that it:

involves a change intervention geared to improvement and a process based on a continuous interaction between research, action, reflection and evaluation. (Hart 1996, p. 454)

This definition captures several elements frequently encountered in the literature. Stringer (1996) suggests that action research has gained ground in professions such as nursing because of its realignment with creativity, investigation and

problem-solving, features that practitioners value in practice, as opposed to mechanistic and technical solutions which cannot be applied in all situations. Most clearly, the problem-solving cycle of action research mirrors that of the nursing process. Hart (1996) has traced its development in nursing from a focus on the organization of services to recognition of its affinity with nursing defined as 'a social process essentially concerned with people, their actions and interactions' (p. 455). She identifies a number of attractions in action research for nurse researchers and sees its momentum as arising from growing criticism of positivism. In particular, its applicability to the context in which care is being delivered allows it to impact on practice. For Greenwood (1994), it represents the most appropriate research methodology for nursing.

However, action research has faced a variety of criticisms. For example, action at the expense of research is a concern (Meyer & Bateup 1997), as is the view that the method might simply mask 'sloppy' research (Eden & Huxham 1993). Consequently, action researchers have been faced with the challenge of defending validity claims. Because of similarities, the emergent debates around the reconceptualization of validity in qualitative research are outlined, prior to a consideration of the related arguments for action research. Areas of similarity, repetition and overlap are identified prior to an attempt to combine the relevant components. The debates align themselves around three avenues of thought: that no criteria are required; that parallels with other schools are appropriate; and that new concepts specific to one school of thought should be developed. We make the case that, because of its ethical and action-oriented principles, action research offers the potential to address validity issues that remain problematic to 'pure' qualitative researchers and that its pragmatic approach is validity enhancing.

Reconceptualization of validity in qualitative research

From the perspective of logical positivism, there is one objective reality and, as a consequence, validity in research relates to the degree to which an account corresponds to the phenomena it claims to represent: the so-called correspondence theory of truth (Hammersley 1992). Schwandt (1996) has argued that logical positivism is aligned to a search for certainty that has its origins in Cartesian dualism, wherein knowledge is seen as separate from belief. As a consequence, emphasis has been on method and theory for their promotion of a naturalistic ideal, which is driven by moral and political ideas of disengagement, instrumentality, reason and atomism. As Smith and Deemer (2000) point out, the situation that

developed was one in which 'the referent point for judging claims to knowledge was, and could only be, that which was outside, and independently so, of the knower' (p. 878).

Experimental methodology, because of its espoused generalizability (promoting external validity), objectivity (removal of bias) and replicability (enhancing reliability), was the ensuing method.

Qualitative researchers were faced with the challenge of generating alternatives that were aligned with an interpretivist or constructivist view of reality (Fossey *et al.* 2002). A historical development can be detected in this process and an impression of evolving concepts, developing from the, perhaps, naïve to the more sophisticated, is discernible.

An initial response was the application of the same notion of validity to both quantitative and qualitative research. Previous proponents of this position include Field and Morse (1985) and Duffy (1985), who promoted the use of the same criteria but emphasized threats to accurate representation implicit in qualitative methods. Some were sceptical, however, of the extent to which the epistemological differences are suppressed in this school, implying instead that there are fundamentally irreconcilable differences between the two approaches (Avis 1995).

A second theme is epistemologically guided and relates to two fundamental issues about knowledge creation. The first so-called 'problem of the criterion' highlights the lack of indubitable criteria of knowledge. The second holds that there is no means of accessing reality directly; we are forever reliant on accounts of it that by their very nature (science included) are interpretations. As a consequence, the discovery of truth is impossible (Hammersley 1992). This response promotes the view that no criteria are needed to judge truth. Smith and Hershuisius (1986) are advocates of this position, arguing that it is only through the consensus of individuals that the credibility of research findings may be judged.

Despite such views, it is generally held that a judgement is required as to the soundness and value of work, and that this should be made on a rational basis. The most developed response, therefore, falls between the two positions of no criteria and using the same criteria as quantitative researchers. This response is based on the reconceptualization of criteria, and is heavily influenced by approaches used to develop quantitative criteria. Semantics has been a recurrent theme, with authors pointing to the value-laden nature of the term 'validity' and its association with logical positivism. For example, 'quality' has been offered because of its wider connotations (Whitmore 1994). Lincoln and Guba (1985) offer credibility, transferability, dependability and confirmability. Other examples include plausibility, trustworthiness and authenticity.

Sandelowski (1986) compares and contrasts these concepts and suggests a range of approaches that promote their achievement. Examples include the provision of an audit trail, checking the representativeness of the data, and triangulation. She does, however, highlight the potential for these types of guidelines becoming 'a violation of the individuality and uniqueness' (p. 35) of qualitative research.

The influence of this alternative approach meant that such criteria came to be considered as universal standards to be applied to qualitative research (Koch & Harrington 1998) but this development was not without criticism. Sandelowski (1993), perhaps reflecting her initial fears, expressed concern that this approach was being adopted uncritically with an apparent drive for rules, including aspects such as member checking, bracketing, peer review, triangulation and memo writing. However, she has since modified her position (Sandelowski & Barroso 2002), as discussed below. Similarly, Smith and Deemer (2000) challenge what they term the quasi-foundationalist approach for implicitly retaining the empiricist concept of truth and the fact that there is a version of reality that can be accessed.

Lincoln and Denzin (1994) acknowledge the problems and refer to a crisis of legitimation in which the adoption of sets of rules (they cite 17 terms) is an attempt to re-authorize the text's authority in the post-positivist movement. They maintain that a text is valid if:

It is sufficiently grounded, triangulated, based on naturalistic indicators, carefully fitted to a theory, comprehensive in scope, credible in terms of member checks, logical and truthful in terms of its reflection of the phenomena in question (Lincoln & Denzin 1994, p. 579).

These early attempts, which converted quantitative terms to their parallel qualitative terms, were criticized for being 'nostalgic' (Heron 1996, p. 160) and for reflecting a misplaced sense of security in the positivist method, a situation described as 'criteriology' and representative of a 'Cartesian anxiety' (Schwandt 1996) when going against the power base. Sandelowski (1993) emphasizes the 'artfulness, versatility and sensitivity to meaning' (p. 1) that qualitative research offers, and suggests that validity is, in fact, contextual. She attacks the alignment of validity with truth, and the 'reification, commodification and reduction' (p. 2) of the concept to a set of procedures, arguing that in the naturalistic/interpretive paradigm reality is socially constructed and data are inherently revisionist (i.e. refined by the teller or researcher). As an example of the inherent problems of these procedures, she highlights problems in member validation, criticizing it for not taking account of stakeholder interests.

Minimal standards for the consideration of validity in openly ideological research have been established (Lather 1986). These are triangulation, construct validity (via systematic reflexivity which indicates how *a priori* theory has been changed by the logic of the data), face validity (through member checks) and catalytic validity (evidence of the extent to which participants have been re-orientated, focussed or energized). Hammersley (1992) generated seven composite criteria (theory production, transferability, consistency with observation, novelty of claims, credibility, reflexivity and development of theory) that, he feels, constitute a new set of criteria that can be applied in judging the validity of qualitative research. He likens such criteria to process tools and, in so doing, resonates with the concept of tactics (e.g. Miles & Huberman 1994) for ensuring the quality of research, for checking findings and for employing a sceptical approach. A similar approach has been outlined in which markers for assessing validity, such as data quality, theoretical adequacy and policy relevance are offered (Popay *et al.* 1998). Additionally, relevance has been promoted as a key factor and a range of tactics to promote the validity of qualitative research has been outlined. These include triangulation, respondent validation, clear exposition of methods of data collection and analysis, reflexivity, attention to negative cases and fair dealing (Pope *et al.* 2000). Fossey *et al.* (2002) categorize such tactics as evidence of either methodological or interpretive rigour, but point out that 'not all are equally important or applicable' (p. 723) in every qualitative study.

Such developments reflect an expanded conceptualization of rigour, one that recognizes the engagement of the researcher in the production of the research. Koch and Harrington (1998) prefer to consider whether qualitative research meets the criteria of plausibility and suggest that this is achieved by reflexive, detailed and contextual writing (suggesting that there is an inherent articulate component to good qualitative research).

Lincoln and Denzin (1994) identify two aspects that need to be addressed. First if the concept of validity is to be rejected or 'unmasked' as an indicator of the authority of a text, with what should it be replaced? They suggest that values and politics are central, and that the manner in which power and ideology operate through any system of discourse needs to be articulated. The second concept they identify is verisimilitude: the ability of a text to reproduce and map the real, which resonates with an appeal for the articulate (Koch & Harrington 1998). However, they also support the view that any reality is an interpretive one, raising the notion of different interpretive communities.

Guba and Lincoln (1994) developed their position, articulating the concept of authenticity as an alternative to the parallel terms cited earlier. The sub-components of this concept are:

- fairness: research outcomes should show that informants have had access to the inquiry process, being involved from the outset about the choice of salient questions and how to answer them;
- ontological authenticity: that there is evidence that informants have enlarged their personal views of their culture;
- educative authenticity: that informants have improved their understanding of the views of others in the culture; and
- catalytic and tactical authenticity: that informants have been stimulated and empowered to act to reshape their culture on the basis of their expanded awareness.

Parallels can be identified between the last sub-component and the critical perspective.

Heron (1996) welcomes such criteria because they represent a shift from a concern with truth to a concern with goodness, from credibility to desirability and from epistemology to axiology. He maintains that they are 'all to do with values, with what human states of affairs are intrinsically worthwhile' (p. 161). However, the challenge may be: by what processes should or could these components be achieved or promoted?

The foregoing debates are described by Gergen and Gergen (2000) as 'tumultuous dialogues' (p. 1026), recognizing that energy contained within the discourse carries with it opportunities for new evolutions in the consideration of validity. They also highlight how there is no rationale by which qualitative researchers might claim superiority over quantitative research, in terms of accuracy or sensitivity. This is important, because the issue should not become a polarized 'better or worse' debate – research method must be directed by the research question. What is, however, important is a consideration of why a piece of research should be considered to be of quality. To this end, Gergen and Gergen suggest that the debate has reached an impasse but that, in contrast to developments in quantitative research [e.g. The CONSORT statement (Moher *et al.* 2001)], few would welcome a 'coherent, conceptually rigid framework' (p. 1031). They invite further dialogue on how validity might be reconceptualized.

Smith and Deemer (2000) argue that judgement of quality is essentially a moral and practical issue. Whilst avoiding giving exemplars, they offer the concept of a judgement list, which they describe as 'always open ended, in part unarticulated...always and ever subject to constant reinterpretation...

...inevitably rooted in one's standpoint' (Smith & Deemer 2000, p. 888). This notion of a dynamic, semi-permeable *aide-mémoire* emphasizes the view that qualitative researchers need to live with uncertainty and the absence of final vindication, which is replaced with moral and practical judgement. Sandelowski and Barroso (2002) now lends support to this view, maintaining that the evaluation of qualitative reports be considered as a situation in which readers seek to make meaning from texts rather than one in which standards and criteria are applied. To this end, they highlight aesthetic and rhetorical concerns and generate a guide for reading qualitative studies which, arguably, provides the exemplars that Smith and Deemer (2000) promote.

In summary, the search for validity criteria in qualitative inquiry leads to several distinct positions. Some commentators take the view that establishing standards for qualitative research is a fruitless endeavour. Others, accepting the need for a structured approach, have aligned themselves with positivistic concepts. A critique of this latter stance has generated a further alliance that has moved away from analogues of positivism towards separate and distinct criteria. The application of criteria, however defined, is not clear, and confusion exists as to how judgements should be made about whether or not a standard has been reached. This debate is ongoing but, clearly, notions of power, participation and ethics are central. In this respect, action research may be considered as a methodology that appears to address the issues and has, arguably, influenced the debate.

Action research

In considering validity as it applies to action research, similar themes are apparent. As Fossey *et al.* (2002) point out, any judgement of the quality of research needs to take account of the philosophical aims informing the method. Action research, which takes many forms, has been laid claim to by more than one school.

The minority view locates action research within the constructivist/interpretivist domain, seeing it as a method for gaining access to participants' understandings and meanings of their situations. In this instance, the perception of action research is one of a qualitative method (e.g. Koch & Harrington 1998), albeit one that emphasizes interventionism. A stronger case is made for locating action research within the domain of critical theory (Kemmis 2001). This view recognizes its potential as a method for addressing ideological and power-related issues in social situations, as well as providing an impulse for action. Finally, a significant and relatively recent addition to the perception of action research locates it within a participatory paradigm (Reason

& Bradbury 2001) that places emphasis on the collaborative aspects of the method within an ecological context.

As is the case with qualitative research, there is a view that dismisses the notion in its entirety, arguing that the concept of validity has no place in action research. For example, Newman (1998) maintains that it is a 'red herring' in relation to action research. From a nursing perspective, Rolfe (1996) introduces the concept of grounded practice. Grounded practice is generated by the introduction of reflexivity, so that not only is change brought about but also such change leads to improvement. Rolfe (1996) does not define reflexivity but suggests that its inclusion leads to reflexive action research whereby:

The effects of change are immediately assessed and the theory and practice modified...and negative outcomes are eliminated and positive outcomes are enhanced. (p. 1317)

For Rolfe (1996), reflexive action research is subjective (unashamedly so, in his view) and that, as a consequence, the researcher/practitioner is the only important judge of the quality of an intervention.

There appears to be an inherently illogical position adopted by these authors, in that parameters for judgement or processes that make the work more valuable are subsequently offered. For example it is suggested that we can refer to others' interpretations to generate a communal view and that this remains an interpretation of reality, albeit a more widely shared one. The task should be to create an interpretive community within which data/ideas/arguments resonate. The notion that the audience is the judge of plausibility is one that emerges from different authors and raises questions as to whom these audiences might be and how action research needs to be presented to each.

There is an apparent paradox between the dismissal of validity criteria and the alternative concept of resonance with interpretive communities. Despite the case being made that this represents a different level of interpretation, it seems that the end point of such a process is a consensus about reality. Arguably, this, indeed, makes something more valid.

Rolfe (1996), in arguing that the researcher/practitioner is the only important judge of the quality of an intervention, remains true to his central position of no criteria being necessary to judge quality. However, he also indicates that change should be aimed at bringing about improvement and, in so doing, it can be argued that he reveals that he has been influenced by the notion of better action research. This could be viewed as representing a version of the attempt to identify more valid work.

As is the case in qualitative research, this position reflects a minority standpoint, and other authors make an overt call for

parameters to judge action research. The rigorous application of chosen methods, be they qualitative or quantitative, is an example. This position mirrors the movement outlined in relation to qualitative research, in which using the same criterion as applied in other types of research is seen as being a transferable component of validity. Such views appear to have been regarded as more or less self-evident features of validity and appear to generate consensus in the literature (e.g. Clarke *et al.* 1993, Titchen 1995, Waterman *et al.* 2001).

However, it is also important to note that this is an incomplete judgement, as it takes no account of additional features of action research, and it remains a matter of conjecture as to the relative weighting that should be given. It seems clear, however, that the injudicious use of methods brings with it the likelihood of compromising the study as a whole. An emerging view, and one that appears to echo the notion of reconceptualization of validity, raises important considerations about rigour in the face of contextual and pragmatic considerations. In this view, the relevant commentators highlight that the primary focus of action research is practice. This signals important developments in the consideration of validity in relation to action research and sustains the debate started by Susman and Evered (1978), who explored the 'scientific merits' of action research. The positivist viewpoint of validity was utilized to test action research; unsurprisingly, it failed the test. The authors argue that the legitimacy of action research needs to be based on alternative philosophical traditions. One of these is the Aristotelian notion of praxis; the art of acting upon the conditions one faces in order to change them. Since then, other authors have referred to the influence of the practice focus of action research and its implications for judging quality. For example, Somekh (1995) argues that action research concerns itself with processes of development and change in social situations and can, therefore, never be amenable to the demand for certainty. Consequently, the goal is practical wisdom, revealed only when the multiple determinants of action, interactions and interpersonal relations are explored in their unique context. She maintains that, in the pursuit of such a goal, the chosen method may need to be adapted, but that such decisions should be made without apology. For Somekh, this means that methods of evaluation must necessarily be opportunistic and sensitive to context.

The complexity of the practice situation is also commented upon by Kemmis and McTaggart (2000) who maintain that action research 'emerges in situations where people want to make changes thoughtfully...when people want to think "realistically" about where they are now, how things came to

be that way, and, from these starting points, how, in practice, they might be changed' (p. 575).

They argue that technical and methodological rigour might usefully be sacrificed for gains in face validity and practical significance when studying and intending to change practice.

The focus on change in practice has implications for other facets of validity-making claims and, ultimately, resides in belief systems about how practice is constituted. Kemmis and McTaggart (2000) argue that action research is a methodology that is highly appropriate for capturing practice. They see validity as being aligned with the generation of information that is appropriate for bringing about change. Variation is evident in terms of whether change is an important indicator of validity in action research, although the view that a range of outcomes is related to validity is discernible. A related theme is the nature of the outcomes that are generated. It seems reasonable that the validity of action research can be aligned with outcomes generated for participants and the environment. Such outcomes encapsulate a range from the concrete to the abstract. In line with the identified characteristics of action research, theoretical and practical outcomes are important. However, outcomes relating to collaboration and participation are of interest, as well as those linked to individuals' personal and professional development.

Consensus appears to be located in the conceptualization of practice as needing to include participants' viewpoints. Terms such as 'practical wisdom' (Elliott 1991) and 'situational understanding' (Dreyfus 1981) capture this. Similarly, it is argued that, for participants in the social setting, the 'realistic' perspective is *de facto* multi-faceted. As a consequence, to understand the setting, one must adopt a multi-faceted approach and include participants' viewpoints to facilitate better informed action (Kemmis & McTaggart 2000). This highlights another clearly identifiable theme in the literature, which is the issue of participation and the inclusion of research participants in the research process: research with rather than on people.

There is a shared commitment to an ideal, described as collaboration, fairness, democracy, participation or inclusivity (Lewin 1948, Heron 1996, Rolfe 1996, Wallis 1998, Waterman *et al.* 2001), which can be summarized as emphasizing the nature of the relationship between inquirers and participants, and between inquirers and the research environment. Indeed, participation has been cited as a distinguishing feature of action research (Waterman *et al.* 2001). This ideal is an important principle upon which action research is based and, as such, offers a sense of identity to the inquiry process. It encapsulates and directs the ethical stance that is taken in such relationships, it sets parameters for the

way that process is managed, and it provides a focus for reflection and reflexivity. The methods of moving towards this principle are varied, but consideration of factors such as these, and the extent to which they have promoted participation, can be considered as validating.

A related theme in the consideration of validity revolves around the important influences of a cyclical approach. The dialectical movement between action and reflection is promoted as essential in recognizing the complexities of practice and, as a consequence, validity is enhanced when researchers allow opportunities to deal with emergent issues and for the refinement of ideas (Waterman 1998). It is, perhaps, this latter argument that signifies the 'trump card' and highlights the added value of this approach.

Significantly, a dialectical approach encapsulated within the cyclical process avoids premature foreclosure on data and allows the researcher(s) to continue to gather information about an area. This 'research cycling' can be conceptualized as having a pruning effect (Lather 1986). As a consequence, needless vagueness and ambiguity is reduced, but amplification and deepening of the research focus is enhanced. In this way, the cycle is seen as having a positive influence on the subsequent validity of a piece of action research.

The cyclical process has also been cited as being an important consideration in addressing political and moral imperatives. For example, explicit discussion of tensions and contradictions in the inquiry context is cited as an important validating principle (Waterman 1998). This is interesting, as it could be argued that a qualitative researcher would also make the case that they would seek out contradictory views or perspectives, and deal with any ethical and moral imperatives. What is, perhaps, different in action research is that contradictions and moral issues are considered as they relate to the change issue, and are necessarily fed back into the cyclical process. The concept of reflexivity is common. There is a clear call for awareness of potential bias and the need to foster an inquiring approach to the influence of such biases and to take account of them where possible. Such an approach is not unique to action research but is considered particularly relevant in the dialectical process.

This cyclical process is promoted because it provides an infrastructure to the inquiry process and acts as a foundation for an intrinsically more robust inquiry. A logical progression of such thinking would lead one to suggest that the more cycles of reflection and practice, the more valid the action research study. However, it is debateable whether the robustness of an action research study has a linear relationship to the number of cycles engaged in. Rather, it is the degree of interplay between each element and its transparency to the audience that promotes validity.

What is already known about this topic

- Action research is promoted as a suitable methodology for developing nursing practice.
- Challenges to its validity have been made which parallel those faced by qualitative researchers.
- Responses to these challenges have led to a reconceptualization of validity in both camps.

What this paper adds

- We provide discussion of how reconceptualization of validity has been managed by qualitative and action researchers.
- The case is made that practice should be the central concern of action research.
- We discuss the influence of this position on validity claims in action research.

A final, and tentative, theme relates to the suggestion that action research may be seen to be valid from an axiological perspective, that is, one that promotes action research as valuable due to the inherent worth of setting out to improve the situation or lives of people. Such a view is contestable, as researchers using other methods might well argue that this is an associated goal. However, where action research is different is that this goal is explicit from the outset, and the integration of action alongside research makes this particular method unique in its pursuit of change for the better.

Conclusions

When considering validity and action research, the criterion of rigorous application of chosen methods is supplemented by criteria that encapsulate the notion of an added value. These are factors that go beyond the specific methods employed and, it can be argued, address issues of power, participation and ethics that exercise the minds of qualitative researchers. What is also apparent in the debates about validity and action research is a move towards a 'tactics' based approach, imitating that described in relation to qualitative approach. This is characterized by a move from the specific to the general, from the perhaps naive to the more sophisticated. An example is the list of 20 questions that Waterman *et al.* (2001) offer. In addition to more concrete issues that relate to stating aims and objectives, and outlining details of project management, these authors include recognition of the contextual nature of action

research and the need to manage the tensions that exist. Importantly, these considerations are not placed within a hierarchy, in recognition of the fact that local factors and the nature of the desired change will influence the relevant weighting of each.

Such developments reflect the discourse outlined in relation to qualitative research. Interestingly, the evolving vista moves in both cases away from the specific towards a broad consideration of a range of factors, the relative importance of each varying in relation to the environment in which the research is undertaken. In this respect, pragmatic considerations are pushed to the fore, defended by the principle that the multi-faceted nature of practice needs to be accessed if what is being attempted in a study is to be meaningful to, and maintained and supported by clinicians.

References

- Avis M. (1995) Valid arguments: a consideration of the concept of validity in establishing the credibility of research findings. *Journal of Advanced Nursing* 22, 1203–1209.
- Clarke J., Dudley P., Edwards A., Rowland S., Ryan C. & Winter R. (1993) Ways of presenting and critiquing action research reports. *Educational Action Research* 1, 3, 490–491.
- Dreyfus S.E. (1981) *Formal Models vs. Human Situational Understanding: Inherent Limitations on the Modelling of Business Enterprise*. Mimeo. International Institute for Applied Systems Analysis, Schloss, Laxenburg, Austria.
- Duffy M. (1985) Designing nursing research: the qualitative–quantitative debate. *Journal of Advanced Nursing* 10, 225–232.
- Eden C. & Huxham C. (1993) *Distinguishing Action Research*. Working paper 93/18. Paper presented at the British Academy of Management Conference, September 1993, Milton Keynes, UK.
- Elliott J. (1991) *Action Research for Educational Change*. Open University Press, Buckingham, UK.
- Field P.A. & Morse J.A. (1985) *Nursing Research: The Application of Qualitative Research*. Croom Helm, London.
- Fossey E., Harvey C., McDermott F. & Davidson L. (2002) Understanding and evaluating qualitative research. *Australian and New Zealand Journal of Psychiatry*, 36, 717–732.
- Gergen M.M. & Gergen K.J. (2000) Qualitative inquiry. Tensions and transformations. In *The Handbook of Qualitative Research* (Denzin N. & Lincoln Y., eds), 2nd edn, Sage, Beverley Hills, CA, pp. 1025–1046.
- Greenwood J. (1994) Action research: a few details a caution and something new. *Journal of Advanced Nursing* 20, 13–18.
- Guba E.G. & Lincoln Y.S. (1994) Competing paradigms in qualitative research. In *The Handbook of Qualitative Research* (Denzin N. & Lincoln Y., eds), Sage, Beverley Hills, CA, pp. 105–117.
- Hammersley M. (1992) *What's Wrong with Ethnography?* Routledge, London.
- Hart E. (1996) Action research as a professionalizing strategy: issues and dilemmas. *Journal of Advanced Nursing* 23, 454–461.

- Hart E. & Bond M. (1995) *Action Research for Health and Social Care*. Open University Press, Milton Keynes.
- Heron J. (1996) *Co-Operative Inquiry: Research into the Human Condition*. Sage, London.
- Holter I.M. & Schwartz-Barcott D. (1993) Action research: what is it? How has it been used and how can it be used in nursing. *Journal of Advanced Nursing* 18, 298–304.
- Kemmis S. (2001) Exploring the relevance of critical theory for action research: emancipatory action research in the footsteps of Jürgen Habermas. In *Handbook of Action Research Participative Inquiry and Practice* (Reason P. & Bradbury H., eds), Sage, London, pp. 91–102.
- Kemmis S. & McTaggart R. (2000) Participatory action research. In *The Handbook of Qualitative Research* (Denzin N. & Lincoln Y., eds), 2nd edn, Sage, Beverley Hills, CA, pp. 567–606.
- Koch T. & Harrington A. (1998) Reconceptualizing rigour: the case for reflexivity. *Journal of Advanced Nursing* 28, 882–890.
- Lather P. (1986) Issues of validity in openly ideological research: between a rock and a soft place. *Interchange* 17, 63–84.
- Lewin K. (1948) *Resolving Social Conflicts: Selected Papers on Group Dynamics by Kurt Lewin*. Harper and Brothers, New York.
- Lincoln Y.S. & Denzin N.K. (1994) The fifth moment. In *The Handbook of Qualitative Research* (Denzin N. & Lincoln Y., eds), Sage, Beverley Hills, CA, pp. 575–586.
- Lincoln Y.S. & Guba E.G. (1985) *Naturalistic Inquiry*. Sage, Beverley Hills, CA.
- Meyer J.E. (1993) New paradigm research in practice: the trials and tribulations of action research. *Journal of Advanced Nursing* 18, 1066–1072.
- Meyer J. & Batehup L. (1997) Action research in health care practice: nature, present concerns and future possibilities. *Nursing Times Research* 2, 175–184.
- Miles M.B. & Huberman A.M. (1994) *Qualitative Data Analysis*. Sage, New York.
- Moher D., Schulz K.F. & Altman G. (2001) The CONSORT statement: revised recommendations for improving the quality of reports of parallel-group randomised trials. *The Lancet* 357, 1191–1194.
- Newman J. (1998) Validity: does the concept have a place in action research? <http://www.userandara.com/~jnewman/validityhtml>. Accessed December 1998.
- Popay J., Rogers A. & Williams G. (1998) Rationale and standards for the systematic review of qualitative literature in health services research. *Qualitative Health Research* 8, 341–51.
- Pope C., Ziebland S. & Mays N. (2000) Qualitative research in health care: analysing qualitative data. *British Medical Journal* 320, 114–116.
- Reason, P. & Bradbury H. (eds) (2001) *Handbook of Action Research: Participative Inquiry and Practice*. Sage, London.
- Rolfe G. (1996) Going to extremes: action research grounded practice and the theory–practice gap in nursing. *Journal of Advanced Nursing* 24, 1315–1320.
- Sandelowski M. (1986) The problem of rigor in qualitative research. *Advances in Nursing Science* 8, 27–37.
- Sandelowski M. (1993) Rigor or rigor mortis: the problems of rigor in qualitative research revisited. *Advances in Nursing Science* 16, 1–8.
- Sandelowski M. & Barroso J. (2002) Reading qualitative studies. *International Journal of Qualitative Methods* 1 (1), Article 5. Retrieved 1.5.03 from <http://www.ualberta.ca/~ijqm/>.
- Schwandt T. (1996) Farewell to criteriology. *Qualitative Inquiry* 2, 58–72.
- Smith J.K. & Deemer D.K. (2000) The problem of criteria in the age of relativism. In *The Handbook of Qualitative Research* (Denzin N. & Lincoln Y., eds), 2nd edn, Sage, Beverley Hills, CA, pp. 877–895.
- Smith J. & Hershuis L. (1986) Closing down the conversation: the end of the quantitative–qualitative debate among educational enquirers. *Educational Research* 15, 4–12.
- Somekh B. (1995) The contribution of action research to development in social endeavours. *British Educational Research Journal* 21, 339–355.
- Stringer E.T. (1996) *Action Research: A Handbook for Practitioners*. Sage, Beverley Hills, CA.
- Susman G.I. & Evered R.D. (1978) An assessment of the scientific merits of action research. *Administrative Science Quarterly* 23, 582–603.
- Titchen A. (1995) Issues of validity in action research. *Nurse Researcher* 2, 38–48.
- Wallis S. (1998) Changing practice through action research. *Nurse Researcher* 6, 5–15.
- Waterman H. (1998) Embracing ambiguities and valuing ourselves: issues of validity in action research. *Journal of Advanced Nursing* 28, 101–105.
- Waterman H., Webb C. & Williams A. (1995) Parallels and contradictions in the theory and practice of action research and nursing. *Journal of Advanced Nursing* 32, 779–784.
- Waterman H., Tillen D., Dickson R. & de Konig K. (2001) Action research: a systematic review and guidance for assessment. *Health Technology Assessment* 5(23), iii–157.
- Whitmore E. (1994) To tell the truth: working with oppressed groups in participative approaches to inquiry. In *Participation in Human Inquiry* (Reason P., ed.), Sage, London.