



Action Research: A new Scholarship of Educational Enquiry.
Presentation at seminar NUI Galway.
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Margaret Farren with
Mairead Ryan
Dublin City University



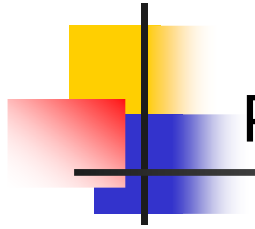
Outline of Presentation

Before Coffee

- Pair work activity.
- Action Research.
- Origins of Action Research.
- Models/Process of Action Research.

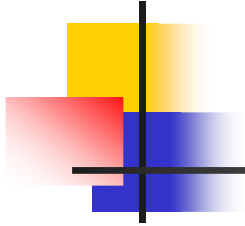
After Coffee

- Case Study – Masters Dissertation - DCU.
 - Data Collection techniques.
 - Rigour and Validity in Action Research.
- Reporting Action Research.
- Recommended readings and Web resources.



Purpose of Presentation

Action Research approach is offered as a rigorous and valid methodology



Pair work

Part One

- One person talk to partner about something in your teaching practice that you have worked on to improve.
- Other person listens to see if they can understand what the values are that are motivating them to improve.
- Feedback from pair work.



Pair work

Part two

- Focus on claims made about improvement.
- Focus on kind of data required to enable you to make a judgement on the effectiveness of the actions taken.



Educational Research

Educational research may include any disciplined enquiry which serves educational judgement and decisions or which is conducted in educational settings such as nursery, primary, secondary, further, higher, continuing and adult education; industrial, commercial and professional training and the local and national systems of education. This disciplined enquiry may draw on the methodologies of other social sciences disciplines, such as sociology, psychology, philosophy or economics; or its methods and techniques may originate from an eclectic view of how knowledge is best generated and utilised by educational policy maker, educational managers and classroom practitioners.

ESRC Postgraduate Training Guidelines (1991).

Economic and Social Research Council, UK.

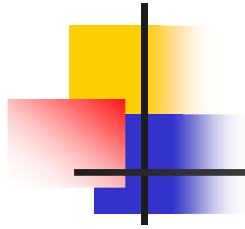


Research on Education or Research in Education

Research in educational settings is only educational research if it is concerned with attempts to improve educational judgement and decisions. Research in educational settings which aims to develop sociological theory, psychological theory, philosophical constructs or historical ideas is not educational research, but sociological, psychological, philosophical or historical research in educational settings.

(Bassey. M., 1995)

Creating Education Through Research.



Research

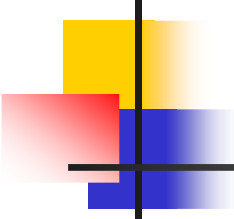
Research is *systematic, critical* and self-critical enquiry which aims to contribute to the *advancement of knowledge*.

Bassegy, 1995



A Definition of Research

- **Enquiry:** An enquiry conducted for some clearly defined purpose.
- **Systematic:** There is a rationale to collection and analysis of data.
- **Critical:** The data is subject to scrutiny by the researcher in attempts to ensure accuracy.
- **Self-critical:** Researchers are expected to be self-critical of the decisions made by themselves in pursuit of the enquiry.
- **The advancement of knowledge:** The enquiry should aim to increase knowledge.
- **Knowledge:** Knowledge that something is the case and knowledge how to do something: it includes theory-in-the-literature and personal theory of individuals which has not been articulated in writing.



"An educational enquiry into the potential use of games in a junior primary school: Enabling mathematical thinking and understanding" **Mairead Ryan (2002)**

- **Enquiry:** Facilitating curriculum implementation
- **Systematic:** Evaluative cyclical process of problem identification, action planning, implementing and evaluating - group discussions, tape recordings, video recordings, photographs
- **Critical:** Research team, peer validation groups, supervisor, children
- **Self-critical:** Emerging, questioning enquiry,
- **The advancement of knowledge:** Do games enable children to express to express mathematical thinking and understanding?
- **Knowledge:** The theory of the enquiry is based in practice and is mutually dependent on the personal theory of teachers' practice



Generalisations and Study of Singularity

Search for generalisations requires the investigation of large populations, usually studied by appropriate sampling, and by intention leads to statements which can be used to predict what will occur in other situations.

Study of Singularity can be investigation of something quite small. It cannot be used to predict probabilities, but it can be related to other situations, it may be valuable (Bassey, 1995).



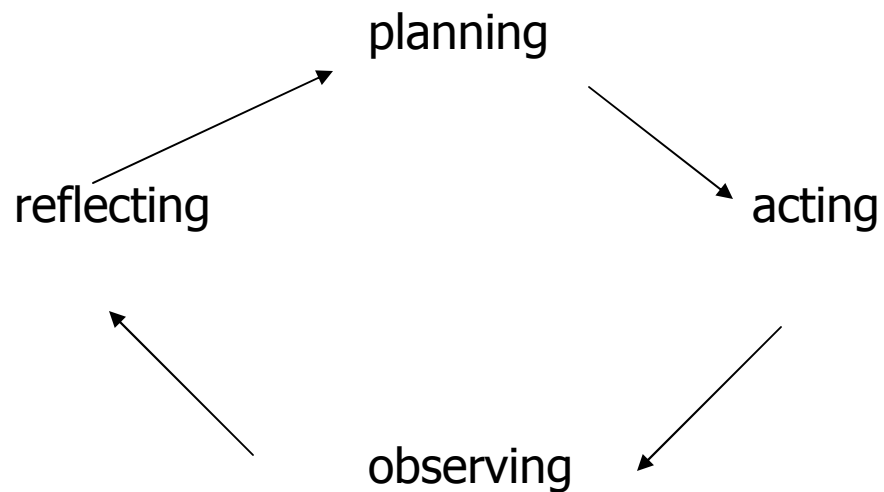
Origins of Action Research

Stephen Corey (1953) first spoke of action research as being a means for improving practice in school. He urged teachers to research their own practice in order to improve it. Prior to that the only researchers were the 'expert' outsiders who 'objectively' researched social situations. But Corey wanted teachers to research their own practices scientifically so that they could evaluate their decisions and actions, modify and reformulate their plans. And so the cycle would proceed. Corey insisted on teachers' research being a cooperative activity which would support democratic values.



Origins of Action Research

Kurt Lewin (1946) is reputed to have been the first to use the term 'action research', as a way of describing professional development in social situations.





Action research

Action research is a form of research in which practitioners reflect systematically on their practice, implementing informed action to bring about improvement in practice.



Action Research

Action Research is simply a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of these practices, and the situations in which these practices are carried out.

Wilf Carr and Stephen Kemmis (1986)



Characteristics of Action Research

- It is the study of a social situation.
- It focuses on practical problems of professional concern that arise in our everyday work.
- It seeks to improve the quality of action and practice.
- It is a reflective, evaluative form of enquiry which concentrates on one's own understanding of a problem and others' understanding of a problem.
 - Dialogue and discussion are crucial.
- It is collaborative and participatory. Those with an interest in the problem or affected by it are entitled to participate in the search for a solution.
- The problem itself, the aims of the research and the methodology may change as the inquiry proceeds.
- A wide repertoire of methods, techniques and procedures are used in Action Research.



Is Reflective Practice the same as Action Research?

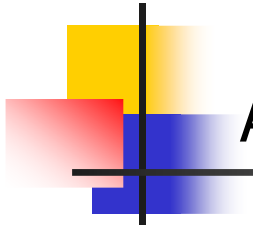
Strategic action distinguishes action research from the reflective practitioner model of teaching and learning.

Schon once described reflective practitioner research as 'non rigorous inquiry' (Schon, 1987, p.3).

Schon's contribution was to bring 'reflection' into the centre of an understanding of what professionals do.

Is Reflective Practice Synonymous with Action Research? Educational Action Research, Volume 7, No. 1. 1999.

www.triangle.co.uk/ear/

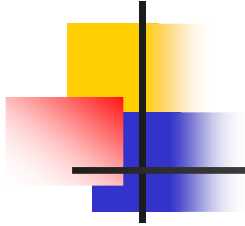


Action

- Doing
- Intervening
- Intending
- Committed
- Motivated
- impassioned

Research

- Enquiring
- Standing back
- Being careful
- Disciplined
- Evidence
- Systematic

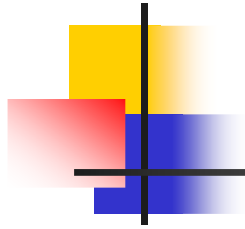


Action

- Doing: Taking action towards curriculum implementation
- Intervening: Facilitating
- Intending: Create change
- Committed: Proactive
- Motivated: Improving practice
- Impassioned: Interested in the research topic

Research

- Enquiring: review of literature
- Standing back: reflection
- Being careful: modest educational claims
- Disciplined: Time to reflect and write.
- Evidence: video recordings, tape transcripts, written reflections, peer validation meetings
- Systematic: Not ad-hoc. Time-scale, method to what you are doing.



Personal Knowledge

Personal Knowledge is the most precious gift in the life of a (wo)man.

Polyani (1958, 1978)



Action Research Models/Process

University of Bath School of Action Research

Jack Whitehead

The 'Deakin' School of Action Research

Wilfred Carr and Stephen Kemmis:

East Anglia School of Action Reserach

John Elliot:

Community Action Research - Australia

Ernie Stringer



Whitehead's Living Educational Theory

- Focus on educational enquiries on questions of the kind, How do I improve my practice? Inclusion of contradiction in enquiry 'I' existing as a living contradiction e.g. holding certain values while denying them in practice.
- Individuals can create his or her own theory as descriptions and explanations of their own learning as they live their life of enquiry.
- Individuals have the capacity to clarify the meanings of their embodied values in the course of the emergence of their values in practice. Values become living standards of judgement as they test for the validity of their explanations for their own learning and educational influence.
- Living educational theories can influence the education of social formations in ways that have significance for the future of humanity.

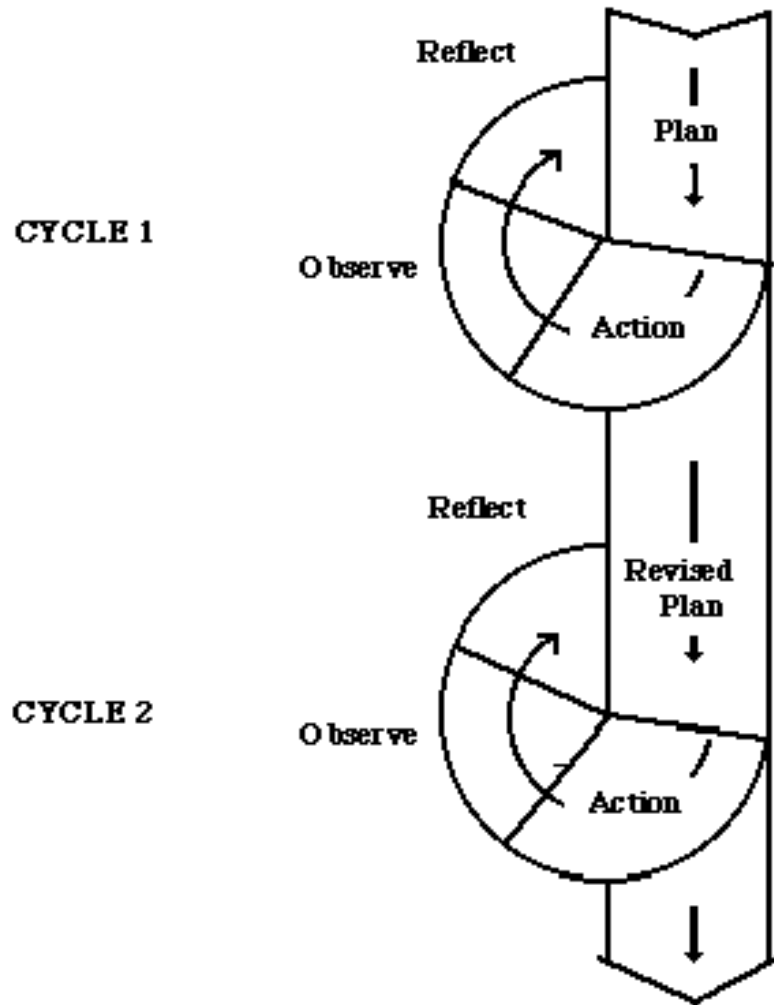


'Living Educational Theory' cycles

- What am I concerned about/what do I want to improve;
- What am I going to do about it;
- What data will I need to collect to enable me to make a judgement on my effectiveness;
- Act and gather data; Evaluation of effectiveness;
- Modification of concerns, ideas and actions in the light of evaluations;
- Submission of descriptions and explanation of my learning in the educational enquiry, 'How do I improve my practice?' to a validation group.

(Whitehead, J.1989)

Kemmis model





ELLIOTT'S MODEL OF ACTION RESEARCH

- Identifying the General Idea
- Seeking Consensus
- Reconnaissance
- **Action Cycle 1**
- General plan
- Monitoring Implementation and effects
- Reconnaissance
- **Action Cycle 2**
- Revised General plan
- Monitoring Implementation and effects
- Reconnaissance
-



Action Research

Action-research might be defined as “the study of a social situation with a view to improving the quality of action within it.” It aims to feed practical judgment in concrete situations, and the validity of the 'theories' or hypotheses it generates depends not so much on 'scientific' tests of truth, as on their usefulness in helping people to act more intelligently and skilfully. In action-research 'theories' are not validated independently and then applied to practice. They are validated through practice.

Elliott (1991a: 69).



Stringer: Community Action Research

Look - building a picture and gathering information.

When evaluating we define and describe the problem to be investigated and the context in which it is set. We also describe what all the participants (educators, group members, managers etc.) have been doing.

Think - interpreting and explaining.

When evaluating we analyse and interpret the situation.

We reflect on what participants have been doing.

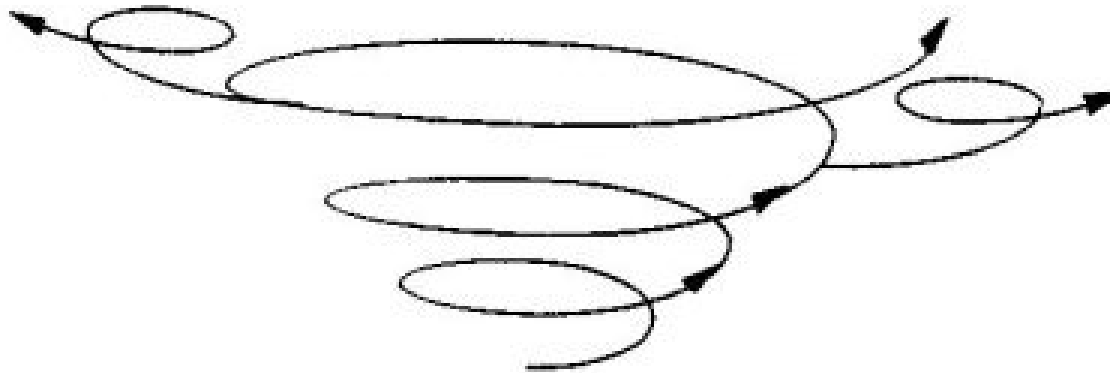
We look at areas of success and any deficiencies, issues or problems.

Act - resolving issues and problems. In evaluation we judge the worth, effectiveness, appropriateness, and outcomes of those activities. We act to formulate solutions to any problems.

Stringer 1999: Action Research by Ernest. T. Stringer. Publisher: Sage Publications; 2nd edition



Using Action Research Cycles



Action Research should offer the capacity to deal with a number of problems at the same time by allowing the spirals to develop spin-off spirals.

(Jean McNiff, 1988)

<http://www.jeanmcniff.com>



Ortrun Zubber-Skerritt: Higher Education

- Influence by contribution of Zubber-Skerritt's work to the field of higher education.
- Web site: <http://www.ortrun.com>
- Action Research in higher education
 - Zubber-Skerritt, O. (1998). Developing as researchers (co-edited with Linda Conrad. Brisbane: Griffith Institute for Higher Education.
 - Zubber-Skerritt, O. (1996). New directions in action research. London: Falmer Press.
 - Zubber-Skerritt, O. (1992). Action Research in Higher Education. London: Kogan Press.
 - Whitehead, J. (1992). How can my philosophy of action research transform and improve my professional practice and produce a good social order? A response to Ortrun Zubber-Skerritt. <http://www.bath.ac.uk/~edsajw/writings/jwwc2.doc>



Action Research Contribution to ICT Initiatives

Bridget Somekh

<http://telematics.ex.ac.uk/erf/present/intro3.htm>

Action Research and ICT



ICT in Education and Action Research

- Supervision of Masters Dissertations.
- Since 1998 within Computer Applications dept.
- Since 2002 within Education Studies.
- Quantitative, Qualitative, Action Research.
- Examples of living educational theory and multimedia and Web based curriculum artifacts.

<http://webpages.dcu.ie/~farrenm>



Legitimation of action research within Academy

Are the descriptions and explanations of teacher-researcher's educational development presented within a form and content that can be publicly tested for validity?



The meaning of validity?

Does the research do the things it claims to do, and can the reader believe the results?



Masters Research: Mairéad Ryan

- Context
- Action research design - Elliot model
- Values: the enquiry is guided by the values inherent in the context of the research question
- Whitehead (1998) defines values as 'those qualities which give meaning and purpose to our personal and professional lives'
 - Implementing a mathematics curriculum that promotes children's understanding
 - Accommodating individual learning styles of the pupils
 - Promoting social interaction in developing mathematical understanding
 - Recognising the interactive nature of teaching and learning



Masters Research –Mairéad Ryan

Cycle 1

Identify initial idea:

- A systematic and reflective approach to curriculum implementation

Reconnaissance:

- Analysis of the underlying principles of the revised curriculum

General plan:

- Explore the use of games to enable children express mathematical thinking and understanding

Action steps:

- Research suitable games
- Develop resources for the games
- Design skills development checklist
- Demonstrate the games and explain skills development checklist
- Use the games in the classroom
- Monitor effectiveness of the games using the skills development checklist



Action Research

Cycle 1 (continued)

Monitor implementation and effects

Group meeting

Emerging issues:

- classroom organisation
- social construction of learning
- observation of development of skills
- childrens' difficulties expressing mathematical thinking
- observation that playing cards connects verbal, pictorial and symbolic means of representing numbers

Reconnaissance

- Observation of development of mathematical skills – application of my own knowledge to learning contexts related from the teachers classrooms to develop a shared understanding which clarified my own understanding and colleagues understanding
- Awareness of the interdependent relationship of the skills as children learn with understanding



Action Research

Cycle 2

Revise the general plan:

- Improve the evaluation of the development of mathematical skills

Action steps:

- Observation visits – triangulation of data
- Continued use of the games in the classrooms
- Monitor effectiveness of the games in light of any insights gained from observation visits

Monitor implementation and effects

Group meeting

Emerging issues:

- The teachers' reports highlighted the development of some mathematical skills.
- The use of games as an assessment tool
- The role of the teacher
- Time to acquire resources



Action Research

Cycle 2 (continued)

Reconnaissance

- Recognition of the development of mathematical skills
- Use of games as an assessment tool to plan appropriate instruction
- Concern about developing suitable resources
- Role of the teacher: interactive nature of teaching and learning identified as one of my values, **not teacher as observer,**
- Video-tape the children engaged with games, interact with children to elicit understanding and thereby embody the value of the interactive nature of teaching and learning
- Suggestion to show recordings to the rest of the teachers



Action Research

Cycle 3

Revise the general plan

- Evaluate the effectiveness of the use of games on student learning for two purposes:
 1. To provide evidence that games enable expression of mathematical thinking and understanding
 2. To introduce the practice of children playing games outside the research team

Action steps

- Video recordings
- Evaluate teachers reflections on the use of games

Monitor implementation and effects

- Video recordings captured valuable insights into children's thinking and understanding and demonstrated the teacher's significant role to elicit this thinking and understanding
- Teachers wrote their personal reflections on the effect of using games in their classrooms



Action Research data gathering techniques

- Keeping a Research Diary – teacher-researcher and students
- Questionnaires
- Interviewing
- Observing
- Video
- Audio
- Online technology



Rigour

- Habermas social validation
- Winter's six criteria of rigour
- Living educational standards of judgement developed by teacher in the course of the educational enquiry



Habermas Social Validation

Habermas (1979) states that the criteria required to judge the legitimacy of knowledge claims are that

- A statement is true;
- The speech act is comprehensible;
- The speaker is authentic;
- The situation is appropriate for these things to be said.



Validation meeting

- Are the descriptions and explanations of the teacher-researcher's learning comprehensible?
- Is there sufficient evidence to justify the claims being made?
- Are the values that justify the enquiry as educational clearly revealed and justified?
- Is there evidence of the teacher-researcher's influence on the learning of others?



Validation meetings





Purpose of Validation meetings

- To test out out claims with a validation group who will challenge claims and help identify any weaknesses
- To check out the data and the way it is analysed and presented
- To enhance claims to knowledge and make sure that data supports them.
- To gain new insights



Validation in Mairéad enquiry

- 1st validation meeting – video conference with Jack Whitehead
Purpose: To discuss and clarify claims that can be made about action research findings.
What evidence do I need to show that, improvement in my learning, other teachers' learning and children's learning has taken place?
Focus on the nature of the learning – my own learning as I am trying to help children improve their learning, the children's learning and my influence on my colleagues learning.
- Detailed analysis of the video recordings: critical incidents presented
- 2nd validation meeting – peer validation: dissertation supervisor, three masters students



Anderson, Herr and Nihlen (1995) Validity Criteria

- *Outcome validity*: the research leads to resolution of the problem under investigation;
- *Process validity*: the research is conducted in a “dependable” and “competent” manner;
- *Democratic validity*: the research presents an accurate representation of the multiple perspectives of those involved;
- *Catalytic validity*: the research leads to understanding, action and transformation;
- *Dialogic validity*: the research is peer reviewed as part of the process.



Winter's Six Criteria of Rigour

- Reflexive critique;
- Dialectical critique;
- Collaborative Resource;
- Risk;
- Plural Structure;
- Theory, Practice, Transformation.

(Winter, R., 1989)



Reflexive critique

Within action research studies claims are modest and result from personal experience of trying to improve a situation. Responsive to your own needs and the context in which you work, but also critical of the existing educational provision and ideology (including your own) (Ashcroft & Foreman-Peck, 1994, P. 3).

The principle of reflective critique ensures people reflect on issues and processes and make explicit the interpretations, biases, assumptions and concerns upon which judgements are made.



Dialectical critique

Recognising contradiction in own practice, teacher-researcher sets out to resolve the conflict that exist between own values and actual practice.

This offers a dialectic critique which subjects all given phenomena to critique.



Collaborative resource

Participants in an action research project are co-researchers. The principle of collaborative resource presupposes that each person's ideas are equally significant. The research enquiry involves collaboration with others.

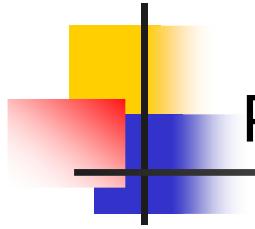


Risk

Risk is accepted as an inevitable aspect of creative practice.

The change process potentially threatens all previously established ways of doing things.

The enquiry addresses the inadequacies felt in ones teaching practice and ways attempted to address them through proactive change.



Plural Structure

The research demonstrates a plural structure which accommodates a multiplicity of viewpoints.

Teacher

Student

Critical friend

Supervisor

Lecturer



Theory, Practice and Transformation

Theory and practice are seen as intertwined.

The research enquiry shows the transformation and harmonious relationship between theory and practice.

Action research allows us to develop and then to test theories in practice.



Addressing Winter's criteria

Reflexive critique:

- Reflexivity insists upon modest claims and questioning these claims.
- Modest claims were made from reflections on my own practice, interviews, classroom observations and statements gathered from participants

Dialectical critique:

- Dialectics is the art of discussion and starts with the notion of a contradiction.
- The educational values I held were a contradiction in practice.
- The action research process enabled me to engage with curriculum implementation, which enabled my values to be embodied in practice as I facilitated curriculum implementation

Collaborative Resource:

- Collaboration was central to the research process.
- Participants viewpoints were considered and their questioning of my statements and actions allowed me to gain insights into my own practice



Addressing Winter's criteria

Risk:

- I engaged in a process where the purpose is to change and improve, which is risking challenging established ways of doing.
- The report shows that change and improvement has taken place.
- The hope that the enquiry will contribute to a living educational theory is taking a risk

Plural Structure:

- A multiplicity of viewpoints were accommodated: Teachers, Children, Critical friend, Supervisor, Lecturer

Theory, Practice, Transformation:

- The theory of the enquiry based in practice is in itself transformed by the transformation of practice.



Living Standards of Judgement

The embodied educational values of practitioners are transformed into educational standards of judgement.



Other Ways of Knowing

Sparkes (2002) discusses how attempts to impose inappropriate criteria on work that is different from one's own...builds in failure from the start so that the legitimacy of other research forms is systematically denied. The research community is in a "no win" situation in which researchers offer blind allegiance to their own particular paradigmatic positions and refuse to acknowledge the contribution that other ways of knowing can make to our understanding.



Action Research Readings

- Creating Education Through Research: A Global Perspective of Educational Research for the 21st Century. Kirklington Moor Press. 1995
- Case Study Research in Educational Settings. Open University Press. 1999



Action Research Readings

- Carr, W., Kemmis, S. (1993) *Action Research in Education*. In Hammesley, M., *Controversies in Classroom Research*, Buckingham: Open University Press
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- Elliott, J. (1991) *Action Research for Educational Change*, London: Open University Press.
- Maykut, P., Morehouse, P. (1994) *Beginning Qualitative Research A Philosophical and Practical Guide* London: Falmer
- McNiff, J. (1995) *Action Research for Educational Development*, London: Hyde Publications.
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- Whitehead, J. (1989) *Creating a Living Educational Theory From Questions of the Kind How do I Improve my Practice?* [online]. Available from: <http://www.bath.ac.uk/~edsajw/writing/livtheory.html>
- Whitehead, J. (1998) *Educational Action Researchers Creating Their Own Living Educational Theories*. A paper for presentation to the Action Research SIG, AERA, San Diego.



Action Research Readings

Jean McNiff (2000). Action Research in Ireland. Routledge.

John Loughran (1996). Developing Reflective Practice: Learning about Teaching and Learning through Modelling. Falmer Press

Marian Dadds: (2001) Doing Practitioner Research Differently. Routledge. London and New York

Anthony Ghaye. (1998). Teaching and Learning through Critical Reflective Practice. David Fulton Publishers.

Mary Lou Hamilton (Editor): (1998). Reconceptualising Teaching Practice. Falmer Press.

Richard Winter. (1989). Learning from Experience. RoutledgeFalmer



Web resources

- Action Research Resources
<http://www.scu.edu.au/schools/gcm/ar/arhome.html>
- Margaret Farren at Dublin City University
<http://webpages.dcu.ie/~farrenm>
- Jean Mc Niff – <http://www.jeanmcniff.com>
- Jack Whitehead – <http://www.actionresearch.net>
- Ortrun Zubber-Skerrit <http://ortrun.com>