

LTSN CENTRE FOR HEALTH SCIENCES AND PRACTICE
MINI-PROJECT FINAL REPORT

**How effective are student research projects in equipping them to be
evidence-based practitioners?**

Professor Maggi Savin-Baden and Angela Fisher, Coventry University

Overview

In light of recent changes in the nature of research projects in the BSc in Occupational Therapy at Coventry University, this study explored the extent to which research projects met the aims espoused in the course document. It also explored the extent to which undertaking systematic reviews and empirical studies equipped students to be evidence-based practitioners kinds of projects influenced students' use and understanding of research evidence within their first year of practice. Thus this study sought to unpack:

1. The purpose of research projects
2. The implication of the recent shifts toward new forms of research projects on practice
3. The effectiveness of research projects in equipping students to be evidence-based practitioners in their first year of practice.

Context

Within the last five years there has been a move away from the use of empirical research projects in allied health professions, which has been informed by the implications associated with the introduction of research governance and the growing interest in the use and value of systematic reviews. This shift has brought with it a reconsideration of the purposes of empirical studies.

The arguments for research projects in undergraduate education are invariably as follows:

To increase the evidence-base of the profession

To enable students to understand the research process

To equip students to undertake research

To enable students to critically appraise existing research

To equip students to evaluate the rigour and trustworthiness of research

In 2002 the BSc in Occupational Therapy at Coventry University moved away from requiring all students to undertake an empirical 3rd year research project and instead offered a choice of either an empirical study or systematic review. To date, few studies have explored newly qualified health professionals' use of evidence in their first year of practice, yet many employees are requiring such capabilities of newly qualified staff. This small-scale study began this exploration by undertaking an evaluation that illuminated newly qualified occupational therapists' experience. It examined 8 newly qualified occupational therapists' perceptions after graduating, of the relevance of the research project that they undertook in equipping them to use evidence in practice.

Aims of the study

- 1) To examine newly qualified occupational therapists' perceptions of systematic reviews and empirical studies in equipping them to use evidence in and for practice
- 2) To establish the extent to which undertaking research projects equipped students to use evidence in the first year of practice
- 3) To explore whether undertaking a systemic review rather than an empirical study affected the extent to which new practitioners used evidence.
- 4) To examine barriers to using evidence in practice

Literature Review

To date the literature on the relevance of student research projects to practice across allied health professions is somewhat limited. Studies have been undertaken that have examined practice placements within occupational therapy (for example, Fisher and Savin-Baden 2002a; 2002b), how students in different professions learn in practice settings, (for example, Merriman et al, 2003), and students' experiences of the first year of practice (Atkinson and Steward, 1997). There have been other studies that have considered the theory practice divide in occupational therapy (Steward, 1996; Fisher, 1998) and there is a mounting debate about how the occupational therapy professional can move away from research debates towards the practice of research (Craik, 1997). There have also been studies in Nursing that have sought to integrate research into teaching through the development of environments for students not only to learn how research is conducted but also to experience how research contributes to improving practice and client outcomes (for example Ervin and Cowell, 2004). Whilst in physiotherapy there appear to be little, if any research into the ways in which physiotherapy undergraduate students are equipped to undertake research. There are however, examples of teaching methods such as problem-based learning, reflective practice and interprofessional education that prompt students the question their position and their practice (for example Clouder, 2000; Reeves *et al*, 2002) At the same time the need for students in health and social care to become independent inquirers and to develop research capabilities have also prompted the increasing use of problem-based learning in undergraduate health curricula in order to afford opportunities to develop research capabilities (see for example chapters in Savin-Baden and Wilkie, 2004) However, the demand for an increase in high quality primary research has resulted in many allied health professions questioning the value of students undertaking empirical studies at undergraduate level.

The success of the modernisation programme for health and social care largely depends on the recruitment and retention of a larger workforce who have the knowledge, skills and values necessary to respond to and meet the challenges laid down in the NHS Plan (Department of Health 2000). The education of students is perceived as a shared responsibility between higher education providers and all health and social care

organisations within the statutory, independent and voluntary health and social care sectors. Such shared responsibility requires that the evidence based practice of all professions in health and social care is not only unassailable but is also embedded in practice.

However, in recent years the shift towards accountability and transparency has meant changes not only in research practices but also in the development of curricula. The result in many curricula is a greater focus on outcomes and less focus upon learning. While the initial aims of quality assurance mechanisms, such as the Quality Assurance Agency, may have been laudable in the attempts to put teaching quality centre stage, what has occurred instead is that the process has been hijacked for other agenda. There are also other strange assumptions about, such as the belief that outcomes and benchmarking standards will somehow make learning better, or will prove competence to practice or even make what is taught auditable across the same subject in different universities. Such naive assumptions seem to pervade large areas of higher education that appear to have forgotten the maxims of Dewey about the separation of 'mind' from a direct occupation with things which in turn means that there tends to be a focus on '*things* at the expense of *relations* of connections' (Dewey, 1938: 167). Such separation of perceptions from judgment and attempts to define separated items of knowledge are not only resulting in students becoming strategic and competency-led learners, but also is downgrading the kind of integrated learning that helps to make connections and understands the relations between things.

Thus whilst performative practices hinder rather than help the development of innovative practice and curriculum development, there have been some recent moves which have encouraged a focus on high quality research practices to be engaged with in undergraduate curricula. For example, the research governance agenda began to address ethical issues and practices and resulted in a number of issues being raised relating to the ethics of undergraduate research practices. The updated framework (Department of Health, 2005) has built on the early work and argues that it seeks to maintain and continue to develop sound research practices. At the same time the Best research for Best health (Department of Health, 2005) is a move to create a model for the governance of research and it is argued that 'All service and academic staff, no matter how senior or junior, have a role to play in the proper conduct of research. Participants in research and the public in general can also

help to ensure that standards are understood and met.’ The focus of this document is largely on improving the quality of research undertaken. However, it must be noted that the development of such arrangements to monitor quality and assess adherence to national standards might close down opportunities for innovative research. Thus there do seem to be a number mismatches between the aim of the proposed new National Health Research Strategy, which aims to create a health research system in which the NHS supports those engaged in leading-edge research to focus on the needs of the patient and the public, and the notion of performative standards. Those in the business of research governance could do well to consider the shifts made by the Quality Assurance Agency and offer a lighter touch approach. For some the requirement to gain ethical approval to interview 20 health professionals spread across the UK is largely prevented because of the requirements of research governance requirements of gaining ethical approval. For new researchers who have gained small sums of money (£10k), the new ethics forms and procedures are unwieldy and are too quantitative for many engaged in research in allied health professions. However, it was in the context of the relatively early years of research governance that this study began and methods were chosen that reflected the focus of the research questions, namely qualitative methods that sought to illuminate the perspectives of those involved in the study.

Methods

An illuminative evaluation framework (Parlett and Hamilton, 1976; Simons, 1987) was used in order to provide qualitative data to meet the aims of the project. Illuminative evaluation involves study of a programme or part of a programme and the evaluators’ task is to provide an understanding of new innovation by

- Becoming familiar with the day-to-day reality of the setting being studied
- Focussing the study by inquiring further on selected issues
- Explaining observed patterns and cause-and-effect relationships.

This method was used in conjunction with interpretative interactionism in order to illuminate the newly qualified practitioners’ perspectives in the context of practice.

Interpretative interactionism is a post-structural interpretative style producing rich accounts that illuminate experience (Denzin, 1989).

Methods of data collection included:

1. Semi structured interviews with

- Students who have undertaken a systematic review n=4 in February 2004 and November 2005
- Students who have undertaken an empirical study n=4 in February 2004 and November 2005

A similar questioning style was adopted across all interviews but the use of semi-structured interviews also allowed for the spontaneous generation of questions, thus facilitating the concepts of 'emergence' and 'collaboration' (Bond *et al*, 1999).

Trustworthiness

Janesik (1994) argued that there is no such thing as a value free or bias free design and qualitative researchers accept that qualitative studies are ideologically driven. The criteria by which this research was to be judged to be trustworthy and authentic were credibility, where emphasis is placed on the integrity and transparency of the study, and transferability, which allows the findings to be applied to other situations (Guba, 1981). The strategies that were used to ensure trustworthiness within the context of this study were:

- Participant Validation

Where data is verbal/discussion based, the sessions were recorded with permission from the participants and the recordings will be transcribed. These transcripts were then returned to all participants who had an opportunity to check the transcripts for accuracy and authenticity prior to analysis and to offer any subsequent reflections. Given the emphasis on participation it was essential that feedback be provided to the insiders (participants) about what was discovered and wherever possible approval was negotiated with them prior to publication.

- Reflexivity

This involved continual evaluation of both subjective responses (personal reflexivity) and the method of research (methodological reflexivity). This process allowed the researchers to identify and articulate personal frames of reference, demonstrating an awareness of cultural influences and personal values as well as ensuring that the methods identified were appropriate and effective. Finlay (1998) also argued that subjectivity is a '*resource that should be exploited reflexively*'. It should also illustrate the process of interpretation, the development of the researchers' own '*research signature*' (Clandinin and Connelly, 1994). A field journal was kept for this purpose.

- Crystallization

Triangulation has been the most common method adopted to validate the findings of research. However, the usefulness of triangulation, a two-dimensional, three-sided figure has been challenged. Recent shifts toward, what Richardson (2000) describes as 'postmodernist mixed genre texts', offer a context within which the traditional idea of validity is deconstructed. This context, where art, linguistics and science merge, demands an alternative that reflects the deepened, complex nature of mixed genre texts without losing structure. Richardson (2000) argues that the concept of crystallization more accurately reflects the complex process of examining and questioning texts. This is due to the multidimensional nature of a crystal that is characterized by a variety of angles and shapes. Janesick (2000) agrees that: "*crystallization offers a better lens through which to view qualitative research designs and their components*" (p391). This concept was therefore explored in greater detail within the context of this study.

Sampling and Selection

The Research Site

The research project focused on Coventry University, along with the settings in which the newly qualified practitioners are employed.

The Sampling Frame

This comprised 8 BSc (Hons) Occupational therapy graduates from the 2003 cohort.

Sampling Method.

A purposive (or theoretical) sampling method was adopted to recruit participants. For example, the '*maximum variation*' sampling technique (Patton 1990) allowed a small sample to be selected on the basis of diversity in an attempt to reflect the research context, incorporating factors such as age, gender and ethnicity.

Ethics: Collaboration, Consent and Confidentiality.

Ethical approval was sought from the relevant local ethics committees. This took a period of over 6 months as permission had to be gained from a number of Research and Development Committees as well.

The significant ethical and moral implications related to this study were acknowledged, particularly given the emphasis on practice and the current climate of significant change. In addition, the potential for the researcher (outsider) to influence and shape the individual stories of those involved, as well as participating in the reconstruction of new stories, is acknowledged. It is therefore important to negotiate the description and interpretation of the data and ensure that the rights and opinions of those involved in the study were respected. An information sheet was provided giving details of the research, the researcher and the implications for all participants. Where English was not the first language of participants an interpreter would have been used on behalf of the participant, but this was not actually required.

The data collected were confidential. Safeguards to confidentiality included the coding of data and the destruction of audio-tapes (or the return to participants when preferred) at the end of the research. The code was kept separate from the raw data. All names used throughout were fictitious to preserve the identity of participants. However, it should be acknowledged that the individuals concerned may recognize some excerpts within the text used to illuminate the interpretation of data.

Data analysis and interpretation

This was undertaken through the use of interpretive interactionism (Denzin, 1989). This process involves the analysis of experiences that shape the meanings that people give to their contexts. Initial data analysis explored and identified common themes. Inductive analysis of transcripts of the interviews was undertaken along with critical discussion with participants in order to reflect on and examine current theory (Savin-Baden, 2000) and explore emerging theories. Using these data, emergent themes were aggregated to provide robust explanations and ultimately to produce rich, illuminative accounts. Credibility in interpretation was important for developing *communitas*, a notion of shared meaning and discourse, particularly across diverse life worlds. Ensuring credibility in interpretation meant that the negotiation of meaning went beyond the mere recycling of transcription and description, and, thus, participants shared their perspectives on the construction of data as text.

In practice data were interpreted through examination of the transcriptions that were then returned to participants for member checking and reflection. Thus in this project such illuminations enabled the researchers to highlight the perceived and actual value of student research projects for practice. Analysis through such packages as SPSS or Envivo was not adopted as such packages tend to focus on the coding of key words and phrases rather than the context and meaning of what is being said. Instead the subtext of data was analysed and processed by the members of the research team by focussing on key issues and themes that emerged from all data.

Findings

The findings presented here are from the first and second cycles of data collection which have been returned to participants for final participant validation and member checking. This was done using the whole of the collated findings which allowed participants to ensure they had been represented fairly in all accounts. The subtext of data was analysed and processed by focussing on key issues and themes that emerged from all data. Thus

illuminations from participants enabled the researchers to highlight the perceived and actual value of student research projects for practice. The overarching themes that emerged from the study were:

1. Supervision

1.1 The perceived value of supervision sets

1.2 Students' perceptions of their role in supervision process

2. Building Research skills:

2.1 Building research skills during the course

2.2 Building research skills for practice

2.3 Building occupational therapy research capacity

3. Pedagogical stance

3.1 Reproductive pedagogy

3.2 Strategic pedagogy

3.3 Pedagogical autonomy

1. Supervision

All participants spoke of the way in which they felt that the forms and quality of supervision they received affected their ability to undertake the research project.

Issues raised included three main areas:

1.1 Supervision sets

Students were allocated to a supervision set that reflected both the type of research they were undertaking (systematic review or empirical study) and broadly similar topic areas. Most participants found the set useful and some felt that was reflected in the forms of learning used across the degree programme. A number of participants argued that they would have preferred more 1:1 sessions. This seemed to be because they felt more able to ask questions and clarify issues. For others, issues of attendance and commitment by their peers affected the quality and perceived usefulness of the sets, but this also seemed to

reflect dilemmas and confusion about students' own roles and positioning in the supervision set.

1.2 Role of student in supervision process

Although students developed group ground rules when supervision first commenced, there was a sense from the participants' stories that they did not entirely understand their role and relationship between one and another and with the supervisors.

Participants in the study reflected on their own position in the supervision set and largely believed that they should have taken more responsibility for their involvement in the sets and the way the supervision sets worked. Yet the data indicated there was confusion about the roles of students and supervisors. Often it seemed to students that they needed to be more autonomous than in other modules of the programme, but they felt ill-equipped to take this step.

2. Building Research skills

Participants in this study spoke of the ways they had and had not been equipped to develop research skills. Perspectives about what counted as the development and building of skills varied across the participants but they spoke of them in terms of:

- 1) Building research skills during the course
- 2) Building research skills for practice
- 3) Building occupational therapy research capacity

2.1 Building Research skills –through the course

The research modules in the undergraduate occupational therapy degree spanned the three-year programme, beginning in the first year with a shared learning module with physiotherapists. Most participants found this module difficult, particularly the statistics, and largely found learning with the physiotherapists at this stage in the course unhelpful. What was interesting to note was that most participants did not find this first year module related to their later research project and they felt there could have been greater cohesion

between first and second year work. Yet many participants did feel that the second year modules helped with the third year research project.

Despite the concerns and the amount of work the modules entailed, there was a strong view that the first modules need to be much more centred on ways of doing the third year project. There was a sense that the applied nature of the third year projects needed to be positioned more centrally in first year work. Ideas ranged from getting students to plan the project structure in the first year, undertaking a systematic review earlier and just making all the learning related to research a lot more fun. Yet there was a sense that participants did not feel they understood the purpose of the research and that many believed it was just another difficult assessment hurdle to be jumped.

2.2 Building Research skills –using them later/informing practice

The desire for practitioners to not only support their practice with well founded evidence but also to become life-long learners has meant that continuing professional development and evidence-based practice are seen to be key components of professional life. One of the reasons for encouraging students to undertake systematic reviews as an alternative to empirical studies was to equip them with skills that they could use to support treatment approaches used in practice. Yet it was noticeable that participants had not entirely believed in the importance of doing the research and the importance it would have for both their own practice and the profession as a whole when they undertook the studies at university. Now as qualified practitioners they not only used and valued the skills, but also realised the importance of their capabilities, capabilities, which many implied, were little in evidence in current occupational therapy practice in general.

2.3 Building Research skills –building OT research capacity

Evidence-based practice has become increasingly popular in the shift towards accountability and best practice in health care with employers requiring that professionals of the future can adapt to changing climates. Yet undertaking research, and particularly systematic reviews, still remains a relatively underdeveloped ability in occupational therapy. Participants' experiences of undertaking research projects indicated that they had

the research capabilities and that they would continue to build research capacity by being involved in research in the future. Participants spoke of how important they now believed it was to continue to do research or be part of larger research projects.

The use of systematic reviews, of whatever sort, implies that the drawing up of a set of rules for 'systematically' reviewing evidence will necessarily make the process of the review and research transparent. Yet there are degrees of transparency and points beyond which is not possible to go when undertaking such reviews, and although participants clearly valued this kind of learning and were able to apply it to practice, there remain questions about the extent to which such systematic reviews fit with the nature and process of occupational therapy both as a practice and as a profession.

3. Pedagogical stance

All the students in the study spoke of the relationship between the way they learned and the way they were expected to learn through undertaking this research project. What became apparent was the extent to which their pedagogical stance impacted on their ability to manage the project. Pedagogical stance (Savin-Baden, 2000) depicts the way in which students see themselves as learners in particular educational environments. The choices students make within a learning situation and the particular learner history that they bring to a learning environment all influence students' pedagogical stances. Pedagogical stances also change in relation to other issues in people's lives, such as opting for a 'safer' way of learning when struggles elsewhere demand energy or resolution, or desiring greater challenge and change in learning when other aspects of life are mundane. Furthermore, the learner's self-perceived ability, and the conflicts or shared values which students have with tutors in those learning situations, may also affect the students' pedagogical stance. The three areas of pedagogical stance that were apparent in this study were:

3.1. Reproductive pedagogy

Reproductive pedagogy encapsulates the idea that students may revert to methods of learning that they have always used, despite the considerable difference they may have encountered between methods of learning experienced at school compared with those at

university. A tendency towards reproductive pedagogy may also occur because the nature of the curriculum reinforces surface approaches to learning. Alternatively reproductive pedagogy may be adopted by students who feel at risk in some way within the learning. Learning, for these students, is expected to be safe and predictable, requiring neither personal initiative nor critical thought. Teachers are seen to be the suppliers of all legitimate knowledge, since anything less will result in risk and failure for the students and inefficiency in their role for the tutors.

Although few students in the study adopted this approach for the projects, several of them felt that there was a notion of reproductive pedagogy in the undergraduate programme, in the sense that students felt they had to be discovering the 'right' criteria in order to pass the research components of the course.

3.2 Strategic pedagogy

Several students used diverse learning strategies, but these were all within the remit of what was acceptable to both the authorities (institution, staff and profession) and the student. Students who adopted strategic pedagogy saw their learning as being strategically linked to the world of work and thus they adapted their learning to ensure that they were equipped with the necessary skills and knowledge for the work place. For example, several students spoke of struggling to make sense of how to learn and of speaking with friends and colleagues to try to work out how the research modules related to occupational therapy practice. This kind of dialogic learning was common across the participants who felt that drawing shared experiences and guidance from their various tutors enabled them to develop insights and understandings about what was required.

Most students adopted strategic pedagogy because although many of them valued the opportunities for self-direction and independent study encouraged through some parts of the course, they felt strategic approaches enabled them not only to integrate theory with practice but also to ensure they passed the dissertation. However, this was not the case for the one student who adopted pedagogical autonomy and experienced confusion, disjunction and near failure as a result of her autonomous stance.

3.3 Pedagogical autonomy

Students here adopt a position of learning that they perceive will offer them the greatest degree of autonomy. Students opt to learn in a way which suits them and that will offer them, as far as they are concerned, the most effective means of learning, meeting their own personally defined needs as learners yet also ensuring that they will pass the course. Thus the domain of pedagogical autonomy is characterized by the ability of students to be independent in making decisions about what and how they learn. Yet this notion of autonomy is not explicit or always clearly understood. One student believed she had understood the criteria she was given before the summer vacation and then chose to spend her holiday period undertaking her systematic review. Yet she felt that on returning to university after the summer the rules had changed and that what she had thought as the criteria were not the same. The student viewed herself as someone who was academically capable, and who was confident in her own ability to question the knowledge and ethical principles laid before her, which meant that she was prepared to take risks and challenge the *status quo*. Yet her independence and autonomy resulted in what she perceived to be a poor mark, which she still felt disgruntled about more than a year after gaining her degree.

Discussion

In nursing and allied health professions the research and literature about undergraduate research supervision by allied health professionals is somewhat limited, particular in relation to group supervision. Yet perspectives here suggest that roles between students and supervisors need to be more clearly defined and that both students and staff require a greater understanding of the supervision process. However, given the growing student numbers and the increasing drain on resources it would seem from this study that group supervision processes are effective as long as staff and students are well prepared at the outset. Many authors have argued that supervision is one of the most complex forms of teaching with which staff in higher education engage, and yet as Wisker suggests ‘Colleagues I have discussed supervision with confirm my own sense that we are always expected to ‘tuck’ supervision in, lacking focus on the very systems and practices of

teaching and guidance it requires' (Wisker, 2005: 22). What appeared to be missing from participants' experiences was a sense of being guided through the research process at the beginning of the research and then being helped towards a more autonomous position as the research project progressed. Wisker's perspective is also helpful here, 'Students require specifically focussed moments to concentrate on the development of their individual projects. Casual regular meetings or group activities are not focused enough on the individual'. (Wisker, 2005: 19). Yet students did feel that through the projects they developed research skills that they were able to use later in practice.

What was particularly interesting about this study was that at six-months to a year after completing their degrees many students did not believe they would ever do research again, nor that the projects they had undertaken had equipped them for practice. Yet the second round of interviews indicated that they had shifted position and believed that the research projects had indeed equipped them for practice, helped them to develop research skills and given them the desire to become involved in a large group project. Many of their positions at the end of this study, (April 2005) seemed to reflect personal and pedagogical shifts which are rarely examined at the end of undergraduate programmes. For example, students do not simply learn the thing they are studying at the time, they also learn about people, contexts, likes and dislikes, and most importantly themselves. Participants' stories reflect these issues and in particular point up that learning is not a linear process whereby students who are engaged in learning are just thinking about that subject, in that context, at that particular time. For the participants in this study their experience of learning about research and evidence-based practice was about engaging different dimensions of themselves in the learning process. Emotions and feelings are often the ones that are most neglected in learning, and it seems, at times, that there is almost a prohibition about them intruding into educational environments. Yet emotions, disjunction and confusions were evident in participants' experiences, as well as feelings of achievement and success as they completed their projects and presented their data at the student conference at the end of their third year. However, what was evident was the way in which their pedagogical stance affected the way in which they engaged with learning about and undertaking research.

Recommendations

1. Undergraduate research projects should focus on the use of critical and or systematic reviews rather than empirical studies
2. Group supervision, although initially more difficult than 1: 1 supervision, promotes peer learning and student autonomy and should be used more than 1:1 supervision
3. Staff need to be trained in group supervision techniques
4. There should be more focus on evidence-based practice and systematic reviews at level one (in the first year of the programme) rather than an emphasis on general research methods
5. Stronger links between research and practice need to be made in this area and funding should focus on studies that are collaborations between universities and practice settings.

Areas for further research

Research needs to be undertaken into:

1. Group supervision at undergraduate level in health and social care
2. The role of staff in undergraduate research supervision in health and social care
3. Longitudinal studies need to be undertaken to explore how students develop research capabilities following undergraduate research projects
4. The diverse ways in which different types of undergraduate student research projects in different disciplines do and do not equip students with research capabilities for practice.

Conclusion

This study explored the extent to which research projects met the aims espoused in the BSc Occupational Therapy course document and compared how systematic reviews and

empirical studies equipped students to be evidence-based practitioners. The findings suggest that the course aims were met but that the first year research method modules needed to be improved. Although students in the study all found the research project useful for developing research capabilities, it seemed that the systematic review was the one which most felt could be applied more easily to practice. Although students had found staff supportive it was evident that education concerning the group supervision process was required before group supervision began, for both staff and students.

The findings of this project suggest that systematic reviews should be used more extensively across health and social care curricula in the UK in order to improve the research capabilities of future professionals and in order to build research capacity in practice settings.

References

Atkinson, K. and Steward, B. (1997) A Longitudinal Study of Occupational Therapy New Practitioners in their First Years of Professional Practice: Preliminary Findings. *British Journal of Occupational Therapy* 60 (8) 338-343

Clouder, L. (2000) Reflective Practice in Physiotherapy Education: a critical conversation *Studies in Higher Education*, 25, (2)11-223(13)

Craik, C. (1997) Research: Moving from Debate to Action. *British Journal of Occupational Therapy*. 60(2), 65-66.

Bond, C., Harvey, B, and Savin-Baden, M. (1999) 'New paradigm research – challenging practice or abstract theory?' Paper presented at The 1st International Conference on Critical Management Studies. University of Manchester, Manchester, UK, 14th – 16th July

Clandin D. J., Connelly, F. M. (1994) Personal Experience Methods. In N. K. Denzin, and Y. Lincoln, (Eds), *Handbook of Qualitative Research*. Thousand Oaks, Ca: Sage, 361-376.

Department of Health (2003) Research Governance for Health and Social Care. Guidance for Local Implementation Plans. www.doh.gov.uk/research (accessed 24 September 2003)

Department of Health (2000) *The NHS Plan: a plan for investment, a plan for reform*. London: DH.

Department of Health (2005) Research Governance Framework for Health and Social Care Available at: <http://www.dh.gov.uk/assetRoot/04/10/89/65/04108965.pdf> Accessed 15 October 2005

Department of Health (2005) Best research for best health: A new National Health Research Strategy - the NHS contribution to health research in England: A consultation Available at: <http://www.dh.gov.uk/assetRoot/04/11/69/35/04116935.pdf> Accessed 15 October 2005

Denzin, N.K. (1989) *Interpretative interactionism*. Newbury Park, CA: Sage

Dewey, J. (1938) *Experience and Education*. New York: Collier and Kappa Delta Pi.

Ervin N.E.; Cowell J.M. (2004) Integrating Research into Teaching Public Health Nursing *Public Health Nursing*, 21, (2) 183-190(8)

Finlay, L. (1998) Reflexivity: An Essential Component For All Research? *British Journal of Occupational Therapy*, 61(10) 453-456

Fisher, A, (1998) Uniting Practice and Theory in an Occupational Framework. *The American Journal of Occupational Therapy*, 52, 509-20

Fisher, A. and Savin-Baden, M. (2002a) Modernising fieldwork, Part 2: Realising the new agenda *British Journal of Occupational Therapy* 65 (6) 275

Fisher, A. and Savin-Baden, M. (2002b) Modernising fieldwork, Part 1: Realising the potential *British Journal of Occupational Therapy* 65 (5) 229

Guba E.G. (1981) Criteria for Assessing The Trustworthiness Of Naturalistic Inquiries. *Education, Communication and Technology Journal*, 29, 75 – 92.

Janesik, V. J. (1994) The Dance Of Qualitative Research Design: Metaphor, Methodolatry And Meaning. In: N. K. Denzin and Y, Lincoln, (eds), *Handbook Of Qualitative Research*. Thousand Oaks, Ca: Sage, 361 – 376.

Janesick, V. J. (2000) The Choreography Of Qualitative Research Design. In: Denzin, N. and Y. Lincoln, (eds) (2nd Edition) *Handbook Of Qualitative Research*. Thousand Oaks Ca: Sage.

Merriman, L., Fisher, A. and Savin-Baden, M. (2003) Report into placement provision in Coventry and Warwickshire. Mimeo. Coventry University.

Patton MQ (1990). *Qualitative evaluation and research methods* (2nd ed). Thousand Oakes, CA: Sage Publications, Inc.

Parlett, M. and Hamilton, D. (1976) Evaluation as illumination. A new approach to the study of innovative programmes. In G.V. Glass (ed) *Evaluation studies review annual* (Vol. 1). Beverly Hills, CA: Sage

Reeves S., Freeth D., McCrorie, P and Perry D.(2002) 'It teaches you what to expect in future...': interprofessional learning on a training ward for medical, nursing, occupational therapy and physiotherapy students *Medical Education*, 36, (4) 337-344(8)

Richardson L (2000) Writing: A Method For Inquiry. Chapter 36 In: Denzin N, Lincoln and Y. Guba (2nd Edition) *Handbook Of Qualitative Research*. Thousand Oaks Ca: Sage.

Savin-Baden, M (2000) *Problem-based Learning in Higher Education: Untold Stories*. Buckingham SRHE/Open University Press.

Savin-Baden, M and Wilkie, K. (2004) *Challenging Research in Problem-based Learning*. Buckingham SRHE/Open University Press.

Simons, H. (1987) *Getting to know schools in a democracy: The politics and process of evaluation*. London: Falmer

Steward, B (1996) The Theory/Practice Divide: Bridging the Gap in Occupational Therapy. *British Journal of Occupational Therapy*, 59(6), 264-268.

Wisker, G (2005) *The Good Supervisor*. Basingstoke: Palgrave Macmillan

Glossary

Dialogic learning - learning that occurs when insights and understandings emerge through dialogue in a learning environment. It is a form of learning where students draw upon their own experience to explain the concepts and ideas with which they are presented, and then use that experience to make sense for themselves and also to explore further issues.

Disjunction - a sense of fragmentation of part of, or all of the self, characterized by frustration and confusion, and a loss of sense of self, which often results in anger and the need for right answers.

Learner identity - an identity formulated through the interaction of learner and learning. The notion of learner identity moves beyond, but encapsulates the notion of learning style, and encompasses positions, which students take up in learning situations, whether consciously or unconsciously.

Learning context - the interplay of all the values, beliefs, relationships, frameworks and external structures that operate within a given learning environment.

Learning in relation - the ways in which students learn with and through others in such ways that they are helped to make connections between their lives, with other subjects and disciplines and with personal concerns. Learning in relation also incorporates not only the idea that students learn, as it were, in relation to their own knowledge and experience, but also to that of others.

Pedagogy - the art and science of teaching and learning.

Pedagogical stance - the ways in which people see themselves as learners in particular educational environments.

Stance – one's attitude, belief or disposition towards a particular context, person or experience. It refers to a particular position one takes up in life towards something, at a particular point in time.