The Supervision of Practice-based Research Degrees in Art and Design

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Abstract

Literature on the supervision of practice-based research degrees in art and design is at present relatively underdeveloped, particularly in relation to empirical studies. This paper, which is based on qualitative interviews with 50 supervisors engaged in the supervision of practice-based doctorates in a range of UK universities and colleges, aims to begin to remedy this lacuna. It examines specific problems encountered by supervisors of practice-based research degrees, and portrays some of the strategies developed and employed by supervisors as they attempt to guide student endeavour towards the successful combining of creative and analytical work.

Introduction

The 1990s saw a considerable growth in research degree student numbers in the United Kingdom. [1] Concomitant with this increase, concern has been generated over issues such as thesis submission and completion rates [2], as well as a general drive to develop and enhance quality assurance procedures at both a national [3] and institutional level. [4] UK research has indicated the central importance of supervision for the successful completion of research degrees, [5] and in recent times the practice of supervision has itself come under greater scrutiny as regards quality assurance. This scrutiny has focused on, *inter alia*, the practices and procedures for the monitoring of students' progress, training programmes for supervisors, and the organisation and practice of supervision. [6]

Research into the field of doctoral education still has much to achieve, and various commentators have noted that empirical research on the practicalities of supervision remains relatively limited. [7] Despite the embryonic nature of this field of inquiry, studies of research degree supervision have now been carried out on both the social sciences [8] and natural sciences [9] and there also exists some humanities-based literature. [10] In contrast what is known about supervision in art and design is almost negligible, particularly in the case of practice-based research [11] as distinct from art history research. The relationship between creative-practical work and research protocols still remains a contentious issue. [12] The existing literature on the supervision of practice-based research degrees at present appears confined to recently developed resources predominantly aimed at aiding supervisors to manage students. [13]

The research

This paper attempts to start to develop an empirical literature on this specific form of research degree supervision. A recent survey [14] identified 35 higher education institutions (HEIs) which offered supervision of practice-based doctorates in the UK. In order to investigate the processes involved, during the period 1995–97 data were gathered via tape-recorded, qualitative interviews with 50 supervisors, located at 25 United Kingdom HEIs. The purpose of this 'pilot' project was not to seek statistical generalisations, but rather to explore the complexities of this kind of supervision. In common with much qualitative research, extrapolation from the data relies upon 'the validity of the analysis rather than the representativeness of the events'. [15] However, the group studied was extensive enough to reveal significant thematic similarities in terms of their supervisory encounters. Interviewees spanned a spectrum of supervisory experience ranging from those who had supervised under the old Council for National Academic Awards (CNAA) regime which operated in the former polytechnics, to relative novices in their first year of supervision. Moreover, the group encompassed individuals who were practising artists/ designers and also those whose background was primarily within art/design history.

The general research literature on supervision reveals a number of commonalities in terms of generic problems arising during doctoral supervision, including difficulties with: balancing pastoral and intellectual support; co-ordinating supervisory teams; and the selection and formulation of overall supervisory strategies. The aim of the research was not to re-examine these general problems, but to identify social processes specific to the supervision of practice-based research degrees. The following account is based upon the interview data and recounts some of the problems encountered by supervisors, together with the solutions they generated. These solutions constitute 'strategies', in effect actions that are conscious, coherent and comprehensive [16], aimed at achieving the goal of successful submission of the MPhil/ PhD.

Problems of structure

Whilst a small number of practice-based research degrees was validated under the CNAA regime in the former polytechnic sector, their recent prolifer-

ation has occurred in the wake of the creation of the 'new' (post-1992) universities. Consequently, a widespread background of institutional expertise in dealing with this specific form of advanced study has yet to be developed. The number of practice-based research degrees awarded by the CNAA was very small, and the number of institutions which developed this creative opportunity was similarly limited. The overall picture at the time of the research interviews was one of relatively embryonic development, and some of the sites visited were handling their first cohorts of practice-based students. Inevitably perhaps therefore, the interviews revealed supervisors to be encountering certain problems with institutional structures.

These problems centred around student research proposals or plans, which had to be submitted on a standard form to a validating committee, such as a Research Degrees Committee, or similar. These committees were usually internal to the institution, but if the 'home' institution did not possess its own research degree awarding powers, another university had to validate the research degrees on offer. Research proposals were usually written by the student with supervisory help and then presented to the appropriate committee(s), whose approval was needed before the research project could be formally registered and permitted to proceed. Supervisors might be members of these committees, or if not, might be permitted to attend in order to speak for the proposal under their tutelage. The interviews identified certain problems specific to practice-based work which supervisors encountered in trying to steer such projects through committees. Committee composition invariably included a majority of members who were not of the art and design community, and who were often unfamiliar with, and unskilled in what supervisors described as 'visual language'. As a result, problems were experienced in gaining validation for students' research, for example:

Our research degree committee had a bit of a problem in getting their heads around the prac-tice-led thing and it's taken a long time and a lot of effort to get them to even think in 'our' way. It's extremely difficult because there are simply so few models, few precedents, you know, artists doing research – that's unthinkable!

In general it's not that easy to get proposals through, particularly at the level of the PhD, where there is a demand for originality … I think it is to do with things like methodology, and to some extent having a notion of some kind of hypothesis which is formulated initially and is something which is testable in some way. The proposals can't be framed in that way from the point of view of a lot of art and design, in a sense a lot of our stuff is much more exploratory, and so the methodology and the outcomes are necessarily more ambiguous … I think it's more to do with whether it's visual or not […] and people on committees are very uncomfortable with that kind of ambiguity.

In response to this kind of difficulty, supervisors often felt obliged to engage in an educational mission outside of the committee venue as they sought to inform, persuade and convince colleagues from other disciplines that practice-driven research constituted a credible academic endeavour. Interviewees variously described such activity as 'lobbying', 'networking' or 'drumming up support' prior to proposals reaching the committee stage. In a few institutions, this political work [17] was part of an informal departmental policy, as one supervisor explained:

And that's a problem in terms of this institution, for instance, our head of school has told us we all have to go and do work in this area … How to make sure other areas of the university are aware of what you might be wanting students to do, what they might produce, how that could be validated, how research into visual practice is a legitimate area of research. Spread the gospel so to speak!

In addition to this political work, problematic committee encounters generated a certain

amount of pragmatism on the part of supervisors, who came to the realisation that many of the committee's demands were essentially ritualistic and formulaic, in terms of requiring a set format for describing research methodology, processes and outcomes. Supervisors on occasion ironically described this ritual presentational form as 'show time' and had learnt, usually *via* rejection of their students' initial proposals, the necessity of tailoring the research proposal to an existing model such as that employed by subject areas such as engineering or music where works were actually created in the form of objects or musical scores, as demonstrated by the following comments:

Now in an area where research is traditional it's easy to say 'look here's a good model. How can I adapt that for myself?'. With our area, those models are not really around at the moment, so I'm busy nicking proposals from people in other areas, and then trying to use my imagination, and saying to the student 'look you can adapt this'.

We are lucky, here there is a music department and there is some precedent for submitting musical scores, so when you are arguing for a student's proposal and when you help them construct that proposal, you can use that as a precedent, a template. Once we get a few completions at PhD level we won't need to point to similarities with music, but initially I've made use of what they have done.

Lack of both institutional experience and experience at the level of the individual supervisor on occasion forced some supervisors in the direction of adapting other disciplinary models, in an attempt to propel proposals through committees and to generate momentum for the student's research. Where this functional strategy had been successfully adopted, some reservations were perhaps inevitable, but the strategy remained justifiable to supervisors, given the context in which they were obliged to operate:

I think 'A' (student) would be the first to criticise his research if he were now to do it again. I think we would be more adventurous, more risky, but at the time we didn't have that kind of confidence ... we felt: 'yes, we can adopt this approach, we can adopt this methodology, because it's been tried and tested elsewhere'.

Where supervisors did not persuade students to adapt readily available models for their research proposals, more innovative projects tended to develop, but required students and supervisors to learn and employ the specific language forms that committees demanded of proposals, for example the rigorous qualification of statements of intent, precision of phrasing, and the linear interconnection of ideas. Given their roles in academia, supervisors were of course generally conversant with academic discourse, but this particular written variant, rooted in the methodological backgrounds of disciplines other than art and design, required a learning process for the majority of those interviewed. From the supervisor's position there were considerable difficulties in converting a proposal, agreed between supervisor and student, into the written form required by research degree committees, as demonstrated by the following comments:

Basically he (student) – the way he thinks is through the process of his hands with wood and clay, and that's how he works through his ideas, gets them clear. It's very different from using words, and that's how he tests his ideas by 'doing', and so the difficulty was in finding a way in which we could sustain that while being able to propose in writing a framework to set bench marks and to establish what his research was actually about, and then to present it in a way that was acceptable to the committee.

This learning process involved not only developing expertise in the specific written form, but also learning how to portray important conceptual ideas in this form, so that committee members

could grasp the essence of the student proposal and accept its validity:

You have to phrase the proposals in such a way that they appear to have a dimension which the people on the committee can get a hold of in terms of their own discipline, and it's a matter of clever salesmanship (sic) *… It is the conceptual blocks where they would fail to simply understand from reading the proposal what it was all about. If it's outside their area they cannot see the substance, what they do see is the proposal through their own way of seeing and that's not an art or design way of seeing.*

Supervisors repeatedly articulated their difficulties in persuading committees to think visually, and provided numerous suggestions for encouraging this facility by bringing 'visual' elements (such as projected images of student intentions) to the committee. No examples were found of this actually occurring at the initial research proposal stage, but this tactic was evident later in the research degree process when the great majority of students underwent committee scrutiny of an application to transfer from MPhil to PhD status. At this juncture, a small minority of supervisors indicated that they had introduced to the committee elements of the student practice, so as to stimulate a visual understanding which would engender an appreciation of the research endeavour and its possibilities. One supervisor recalled:

I took the written work saying what direction she was going to take, and three beautiful wooden boxes and I laid them on the table, and I opened up the boxes and in the boxes were tabulated samples of glass … and they were all related to the text and how they were done and that sort of thing, and it was great because everyone got up from the table for the first time, and said 'that's really interesting', and passed the boxes around and people actually felt what she had produced, and actually felt 'this is a move forward', they could see where it was going, where she could develop her work. It's a question of getting them to see,

and by bringing her work in that allowed them to see its possibilities.

Further along in the research degree process, other problems were generated by committees, usually concerning the appointment of external examiners, where committee members would question the competency of the individuals proposed as external examiners. There were instances in the data where committees had demanded that more 'experienced' individuals be sought for the external examiner role. This judgement seemed to be based upon what was perceived as the 'novice' status of proposed examiners, many of whom did not possess the depth of experience found in other disciplines, perhaps inevitably given the relatively short history of practice-based research degrees. Relating to this general lack of a pool of experienced examiners, committees sometimes objected to the fact that nominated examiners did not have expertise specific to the research project to be examined. Moreover, there was also questioning of the appropriateness of proposed examiners whose background, although within the framework of art and design, was not specifically academic, but located within a particular field of practice. Consequently, supervisors often found themselves involved in frustrating attempts to seek out examiners who would meet the criteria established by committees. The evidence from the interviews indicated that the more experienced supervisors learnt the importance of engaging in educational work of a political nature, before, during, and after committee sessions in order to ensure a positive outcome, as the following illustrates:

Most of the committee seems to assume that research degree business should be the same in art and design as it is in their areas. They seem to think you can find experienced examiners without too much difficulty … Well it's not like that because we are in the early stages of development, and it was the same for them no doubt when they started having PhDs in psychology, or engineering. You

have to appreciate the context in which we are operating, and they don't do that! … You have to work at explaining to them what the state of play is, that their expectations are unreasonable, and in fact unrealistic, in terms of examiner experience generally speaking.

Problems with writing and making

Whilst there are certainly generic problems in supervising students at this level of education, the interviews revealed further concerns specific to practice-based endeavour. The innovation of practice-based research degrees resides in their combination of the creative with the analytic. Ideally, one should reflect the other and the resulting work should portray the inter-connectedness of the two dimensions. For supervisors, however, a central concern was to ensure that this combination was kept in balance. For the great majority of students, the analytic dimension constituted the most problematic component, as the vehicle for the analysis was essentially the academic written form, of which most students had little experience at this level. [18] Imbalances arose when students were either reluctant to engage with the written analytic, which resulted in an overcompensation in practice, or in contrast, when, in their anxiety they focused upon the theory to the detriment of the quality of practice. In the case of the latter, supervisors became aware of the dangers of what some described as 'overtheorisation' or 'pseudo-sophistication', and had to face what they perceived to be a lack of real creativity and equilibrium. Consequently, supervisors strove to direct students back to a central position where a more balanced pattern of work could be achieved, as one indicated:

One of the problems is they think to get a PhD they have to be 'clever', and so some of them get preoccupied with trying to be that. I have seen it result in their theoretical reading propelling their studio work, but the work they produce is not capable of sustaining the theoretical ideas they are writing about. In a way their concern for intellec-

tual ideas stifles the work. From the supervisory point of view you have to help them avoid that so the work can 'breathe', you're trying to create conditions where it doesn't get conceptually top heavy. A lot of it is anxiety on their part about what is intellectually sophisticated, so you're trying to diminish anxiety and to create some kind of equilibrium between the two parts.

Anxiety about the need to incorporate theory into the project sometimes disrupted students' practice fundamentally, so that the student lost confidence in the practice and became theory-directed. Supervisors would then attempt to reorient the students' work:

The problem was that every time he came upon a new text it was taken on as truth, and in a strange kind of way it had a very unbalancing influence on him … well it would disrupt his practice, and you would start to see his work being jostled from here to there, and then back again with a new text. It was like, 'I am doing research, so I have to take on board theory', so off he goes being led by the theory rather than the reverse. We all have our influences, but this is different … I just tried to point out how much he was being whirled around, to bring him back to some sort of equilibrium. Anxiety is what caused it all, anxiety about encountering theory, and then losing sight of the direction of the practice.

Fear, unease and anxiety about engaging with written analytical work can cause students to regard their practice as a refuge from the unfamiliar and threatening intellectual demands. In response, supervisory effort is often directed towards developing student confidence in the analytic mode, and re-establishing a more balanced profile of work. The interviews revealed that at the heart of many student problems was a disconnection between the student's practice and her/his written analysis of that practice. To make that connection more meaningful for students, those interviewed revealed a number of

supervisory ploys. For example, supervisors tried to establish connections between the student's own biography and personal development and the enhancing of their analytic capability, hoping to make the activity of analysis a more positive experience for their supervisees, as one explained:

One of the things which is difficult to get them over is their writing … Well there's the standard problems, you know, grammar, etc. But more fundamentally is that they tend to get hung up on writing to justify what they have done, that's what's been impressed upon them. It's their new status, not just artist or designer, but researcher. So research has to be justified. They can then get lost because the writing ends up being turgid, it doesn't really connect with the practice either, it's as if they have disconnected themselves so as to be analytical. I try and get them to see it in a different light, I tell them it's a voyage of self discovery, they're here to try and understand themselves better: how you arrived at this, why you changed your mind at this point, where you decided to go next. That way hopefully it connects directly to them, and to their practice. I try and personalise it all.

Another supervisory ploy was to chart connections between creative practice and analytical practice, by pointing out to students certain fundamental similarities. The aim was to bolster confidence by emphasizing that experience of problems and their resolution within the realm of practice might profitably be transferred to the analytical domain, as a supervisor indicated:

They get blockages in their practice, and they learn to get over them. That's their experience, so I point out the similarities with writing. I point out there is a parallel process, and if they can do it in one area, they can do it in another. It's a question of making the links for them, and once they can see that themselves it cultivates a bit of confidence, which helps them get over the problem with the writing.

A theme which emerged from the data concerned those students who were not actually averse to writing (sometimes prolifically), but whose style of writing was difficult to reconcile with the academic language forms required of a research degree. In such instances, supervisors found themselves constraining and modifying student output, particularly where the use of visual metaphors was heavy. Many recalled how they had attempted to instil in students a more precise and analytical mode of communication:

The problem is not that she can't or won't write, but rather how she is writing … She's trying to get the writing to match what she creates, so it's creative writing in a kind of fictional way. The problem with that is that she's not making the story explicit enough. It lacks the accessibility and the detailed description of the creative journey she is on … I have to keep on pulling her back from that kind of writing. I tell her, 'you can't expect people to go on a journey with you without giving them a map'. I always put it in visual terms to her: it's a map she needs, the trick is to translate that into accessible writing.

As in the above case, in helping students to develop an analytical capacity, visual devices and comparisons were often utilised, for example at the research design stage. Again, supervisors sought to establish connections between students' creative practice and the new research endeavour. These connections were often presented in the form of concrete ways in which research projects could be constructed, charted and the interrelationships between the parts portrayed analytically, as one supervisor described:

With writing generally I try and get them to devise some kind of visual means to map out what they are going to do. That's a means that they can usually relate to. I had one student who mapped it all out on the floor of his studio space, with others they have done it with computerised graphics, so they can move the different elements around.

Another supervisor used the following analogy:

If you're designing something, you come up with a whole load of ideas, right? And then you go through the ideas and discard some and you use bits and pieces. Then you start putting the design together. I thought, well, perhaps that's the best way of doing it, to actually try and get them to do that with their research ideas. So they come with a whole lot of written ideas and we go through them … It's almost like a cut and paste job, so you're actually trying to get them to sort their research out in the same way they go about designing. I talk to them about collages of the mind! I know that they think this way is easier for them to think things through.

Problems with evidence

A further problem confronting supervisors again related to the need for students to develop their analysis. Research degrees require a systematic marshalling of evidence detailing how students arrived at their particular creative outcomes. The assembling of evidence demands a systematic recording of decisions made within the creative process. Whilst traditionally artists and designers have of course made records of their work and processes, the greater degree of explicitness, formality, and the cumulative detailing of daily work routines, proved to be problematic for many students. [19] For students whose work fitted more easily into the framework of the 'design' end of the creative spectrum, there was some congruence between their work practices and models of research which approximated natural science in terms of the documentation of evidence, as one supervisor noted:

With a process-based practice like print-making, there is a kind of distance there because the process itself is a kind of interruption to that self-reflectivity. So for some students developing that standing back facility, that ability to be a bit distanced and interrogate your choices, it's easier than for others.

The interviews revealed that in the main those 'others' were engaged in projects at the 'fine art' end of the creative spectrum. For many of these students, the first 'revealing' of their practice in unprecedented detail to a critical academic audience constituted a daunting challenge, and was usually approached with great reluctance. At such junctures, the supervisor's task involved facilitating the analytical process and persuading students of the necessity of undertaking systematic recording for the purpose of the research degree:

I think it's a problem more in the direction of fine art than in design. I feel designers are more familiar with detailing their method than artists … with the latter it's nearly always about expressing their own individuality in an intense and personal fashion. They are often quite prepared to discuss their work in an abstract way, but discuss the real substance of it in systematic fashion is quite exposing … She (student) *doesn't want to engage with that kind of analysis. I mean, partly she feels exposed, but she also feels the magic would go … I try and emphasise that she is going to need this kind of documentation if she is going to get a PhD, but there is a limit to what I can persuade her to do. I know for her it's more to do with magic, with something undefinable for her, and she has to feel confident with the amount of disclosure.*

Helping to build enough confidence for students to take what for them constituted a significant risk to their creative identity was an ongoing supervisory concern. Supervisors sought to convince students that their practice contributed something valuable to its field, and that only by the full articulation and demonstration of how that practice worked could its significance be fully appreciated by an academic audience. However, supervisors recognised limits to their powers to persuade students to engage in such a high level of disclosure, as one noted: 'You cannot put in from the outside, what has to grow on the inside'. Ultimately, supervisors hoped that student anxieties about disclosure would diminish, as their

analytic understanding of how their own practice developed began to increase, together with confidence in the academic worth of their project. This, supervisors hoped, would make acceptable the challenge to the student's creative identity.

Conclusion

Research into research degree supervision has revealed some cross-disciplinary problems confronting supervisors as they attempt to propel students to thesis completion. This literature has also revealed a range of supervisory responses to such problems. [20] Many of these general issues also emerged from the data for this project where issues such as balancing criticism and support or alleviating student isolation were highlighted by supervisors. The present paper, by contrast, has sought to portray problems and solutions more specific to art and design supervision, in the context of a developing profile of practice-based research degrees within UK higher education. The paper has identified problems both at the level of institutional structure and at the micro level of supervisor-student interaction. At the institutional level, supervisors had to learn how to convince colleagues from other disciplines that research into art and design practice was a credible endeavour. The data revealed that such work is comparable, in a sociological sense, to selling [21]; in this case selling the concept of the discipline as being ready to engage in the practice of academic research, an activity in which it had not traditionally been involved. At the micro level of interaction with students, supervisors were concerned with a number of problems, particularly those centred around achieving a balance between student engagement with the creative and analytical spheres of their research degree work. Students certainly encountered difficulties with the relationship between writing and making, as well as the production of evidence which supported and justified the formulation of creative processes and artefacts.

The aforementioned supervisory strategies form part of the craft of supervision [22] which art and design supervisors are in the process of evolving. This craft is learnt practically through reflective experience [23], which, whilst theoretically informed, is essentially a practical endeavour. As with analogous activities, the only real way in which to develop the craft is to practise it. However, this developmental process can be enhanced via the transmission of supervisory knowledge by accomplished practitioners. [24] At present, the pool of experienced practitioners able to provide such mentorship [25], or to engage in joint supervision with less experienced colleagues, is still limited. In the interim, one way forward would seem to be the use of workshops, seminars and publications to disseminate good practice and to discuss and debate the supervisory experience as it relates to practice-based research degrees, particularly via the medium of 'case studies'. [26] It is encouraging to note that such workshops and seminars have recently generated a good deal of interest, and in 1997 the UK Council for Graduate Education held a national workshop focussed upon practice-based doctorates in the creative and performing arts and design which highlighted some of the key issues for training and supervision within this relatively new field of enquiry. [27]

References

1. Hutchinson, M. [1995] Postgraduate student numbers, in *UK Council for Graduate Education, Review of 1994*, January. UKCGE; Burgess, R. G. [1996] Trends and developments in postgraduate education and training in the UK, *Journal of Education Policy,* Vol 1, no 1, pp. 125–132

2. Science and Engineering Research Council (SERC) [1991] *Annual Report 1990/91.* SERC; Economic and Social Research Council (ESRC) [1995] *Social Sciences – News from the ESRC,* April. ESRC

3. Economic and Social Research Council (ESRC) [1991] *Postgraduate Training Guidelines*. ESRC; Science and Engineering Council (SERC) [1992] *Research Students and Supervisors*. SERC; National Postgraduate Committee (NPC) [1992] *Guidelines on Codes of Practice for Postgraduate Research*. NPC; Advisory Board for the Research Councils (ABRC) [1993] *Nature of the PhD. A Discussion Document*. Office of Science and Technology; Universities Staff Development Unit (USDU) [1994] *Staff Development in Relation to Research*, Occasional Green Paper No 6. USDU; Higher Education Quality Council (HEQC) [1996] *Guidelines on the Quality Assurance of Research Degrees*. HEQC

4. Lowe, A. & Murray, R. [1995] Reflexivity in postgraduate research training: the Strathclyde Business Faculty experience, *Journal of Graduate Education*, Vol 1, no 3, pp. 77–84; Daniels, B. & Akehurst, G. [1995] 'Training researchers: a multi-disciplinary approach', in *Proceedings of National Postgraduate Committee Seminar: Student Supervision – management and practice*. (1–2 August) National Postgraduate Committee; Clegg, C. & Green, H. [1995] 'Training and accreditation of research award supervisors', in *Ibid*. National Postgraduate Committee.

5. Rudd, E. [1975] *The Highest Education*. Routledge & Kegan Paul; Welsh, J. M. [1979] *The First Year of Postgraduate Research Study*. Society for Research into Higher Education; Delamont, S. & Eggleston, J. [1983] *Supervision of Students for Research Degrees*. British Educational Research Association; Salmon, P. [1992] *Achieving a PhD: ten students' experience*. Trentham Books; Burgess, R. G. (Ed.) [1994] *Postgraduate Education and Training in the Social Sciences: Processes and Products*. Jessica Kingsley; Becher, T., Henkel, M., & Kogan, M. [1994] *Graduate Education in Britain*. Jessica Kingsley; Pole, C. J., Sprokkereef, A., Lakin, E., & Burgess, R. G. [1994] 'Supervision of

Doctoral Students in the Natural Sciences: Expectations and experiences'. Paper presented at UK Council for Graduate Education 2nd Summer Conference (July 27–28) University of Nottingham.

6. Clegg & Green, *op. cit*; Watkins, J. & Drury, L. [1995] 'Quality Initiatives and the Implications for PhD Supervisors', in *Proceedings of National Postgraduate Committee Seminar: Research Student Supervision – management and practice*. (1–2 August) NPC; Zuber-Skerritt, O. & Ryan, Y. [1994] *Quality in Postgraduate Education*. Kogan Page.

7. *Ibid*; and Clegg & Green, *op. cit*

8. Burgess, R. G., Pole, C. J. & Hockey, J. [1994] 'Strategies for managing and supervising the social science PhD', in R. G. Burgess (Ed.) *Postgraduate Education and Training in the Social Sciences: Processes and Products*. Jessica Kingsley; Hockey, J. [1996] Strategies and Tactics in the Supervision of UK Social Science Students, *International Journal of Qualitative Studies in Education*, Vol 9, no 4, pp. 481–500.

9. Delamont, S., Atkinson, P. & Parry, O. [1997] *Supervising the PhD: A guide to success*. SRHE/Open University Press; Pole *et al, op. cit*.

10. O'Brien, P. K. [1995] The reform of doctoral dissertations in humanities and social studies, *Higher Education Review*, Vol 28, no 1, pp. 3–19.

11. Frayling, C. [1993/4] *Research in Art and Design*, Royal College of Art Research Papers, Vol 1, no 1, pp. 1–5; *Idem*. [1998] *Practice-Based Doctorates in the Creative and Performing Arts and Design*, UK Council for Graduate Education Newsletter, 17 February. UKCGE.

12. Painter, C. [1991] 'Fine Art Practice, Research and Doctoral Awards'. Paper to the National Research Conference in Art & Design, National Society of Education in Art & Design; Alison, B. [1994] Research in Art and Design in the United Kingdom, *Higher Education Review,* Vol 26, no 2, pp. 49–64; Newbury, D. [1996] Knowledge and Research in Art and Design, *Design Studies,* No 17, pp. 215–219.

13. Newbury, D. [1996] *The Research Training Initiative: Six Research Guides.* Birmingham Institute of Art & Design.

14. Painter, C. [1996] Research Degree Regulations and the Recognition of Art and Design practice: A Survey Report, *POINT: Art & Design Research Journal*, No 3 (Winter) pp. 2–6

15. Mitchell, J. C. [1983] Case and Situation Analysis, *Sociological Review*, Vol 31, no 2, pp. 187–211

16. Crow, G. [1989] The use of the concept of 'strategy' in recent sociological literature, *Sociology*, Vol 23, no 1, pp. 1–24

17. Slaughter, S. & Leslie, L. [1997] *Academic Capitalism: politics, policies and the entrepreneurial university.* Johns Hopkins University Press.

18. Hockey, J. [1999] Writing and Making: problems encountered by practice-based research degree students, *POINT: Art & Design Research Journal*, No 7 (Spring/Summer) pp. 38–43

19. *Ibid*

20. Burgess, Pole & Hockey, *op. cit*; Delamont, Atkinson & Parry, *op. cit*

21. Prus, R. [1989] *Making Sales: influence as interpersonal accomplishment.* Sage.

22. Hockey, J. [1997] A Complex Craft: United Kingdom PhD Supervision in the Social Sciences, *Research in Post-Compulsory Education*, Vol 2 , no 1, pp. 45–68

23. Schon, D. [1987] *Educating the Reflective Practitioner.* Jossey-Bass.

24. Collins, H. [1985] *Changing Order.* Sage.

25. Friedman, N. [1987] *Mentors and Supervisors.* Institute of International Education.

26. Yin, R. K. [1989] *Case Study Research: Design and Methods.* (2nd ed.) Sage.

27. UK Council for Graduate Education (UKCGE) [1997] *Practice-based Doctorates in the Creative and Performing Arts and Design Workshop.* UKCGE