Practice-Based Research and the PhD: A Study

A PhD “should be about self exploration... it should be about a growth and feeling like you are on some great journey—the classic thing to do.”

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4. Advice to Prospective PhD students

Practice-Based PhD Study Report January 2009
1. Background Context

This report provides an overview of the results of interviews with a group of doctoral students undergoing Practice-Based Research at three universities. The aims and methods are presented with information about the practitioner research and artefacts created for the group. This is followed by a summary of the results of responses according to each topic area. Finally, a set of further questions with commentary on a selection of issues identified is presented.

1.1 Aims and Objectives

The aim of the study is to understand the experiences of creative practitioners currently undertaking PhD research. The intention is to contribute to the growing body of knowledge about Practice-Based Research (PBR) and will inform current publication initiatives such as a handbook of practice-based research currently in preparation. The specific objectives are to ascertain the views of a group of practice-based PhD students in respect of the following topics.

- Reasons for undertaking PhD research
- Relationship between research and practice
- Role of artefact in research and PhD submission
- Research methodology
- Reflections and advice

1.2 Methods

Ten candidates were identified from PhD research students who were conducting practice-based research in three universities in Sydney, Australia. Interviews of approximately one hour each were carried out between April 14th and May 16th, 2008. The interview questions were prepared in advance and modified during the interview according to the emerging discussion. The interviews were audio recorded and transcribed. The data was analysed in relation to the topic categories based on the following questions

- Why did you decide to do a PhD?
- Was the desire for career advancement a factor?
- Was access to resources and expertise a factor?
- Have your original expectations changed? If so, how?
- What part does your practice play in your doctoral research?
- What part does theory play in your doctoral research?
- How does practice-based research differ from other models of research in your opinion?
- Are you making an artefact as part of your research? If so: describe your artefact(s)?
- How do you expect the artefact to contribute towards your research outcomes?
- Is there sufficient material in the literature that supports practice-based research?
- Do you think that you will continue to use methods from the PhD in your practice?
- What in your view are the benefits and dangers of doing research for your personal practice?
- Does the research dominate the practice or vice versa?
- What advice would you give to a prospective doctoral student?
The data was obtained from interviews with ten students and hence, the results were not intended to be analysed for statistical significance. The data analysis was by topic and commonalities and differences between the participants were noted. The aim was to identify points of interest whether held in common or by single individuals.

1.3 Profile of Interviewees

Ten doctoral students five male and five female, were invited to an interview of approximately one hour. The ages were: up to 25 years - 2, 26 to 45 years - 6 and 46 plus – 2 people. Eight students were at a single university (UTS) and the others at two other local universities (UNSW) and (USYD). Five students were in full time research, two entirely part-time and three had undergone a combination of both.

At the time of interview, three respondents were at the point of submitting their PhD theses and another two expected to complete within the year (2008); another three anticipated completion by the following year (2009) whilst the remaining two did not expect to complete for another two years. One person was still in the stage of establishing detailed plans and considered everything to be in a state of continual change.

1.4 Practice-based Research

In order to provide some context to the interview topics, a summary of views as to the nature of PBR is given. The students were invited to characterize what a practice-based PhD, rather than 'topic' based or theoretical research, has meant for them. Some examples of responses taken from the interviews are as follows:

Practice-based research…

“...has allowed me to create artworks, come up with conclusions that have practical relevance to the creation of interactive artworks.”

“...has allowed me to follow a methodology closely related to the professional practice as an artist I have been following over many years.”

“...has allowed me to address my research questions through practice and to create new knowledge through practice.”

“... has allowed me to be more creative and address issues that were of relevance to creative practitioners.”

“... has allowed me to expand upon all my skills and expertise in the design concept and build of a new artefact. The artefact or system facilitates the ability for generation and measurement of presence engagement. Measuring an objects or systems ability to perform its function is a new method of artistic expression, the PBR facilitates personnel, professional and academic growth for the practitioner.”

“... has allowed me to investigate the broader implications of this earlier work: why that research was of interest to my arts practice; the significance of related yet unexplored areas of study, and the meaning of the subject in the context of contemporary art practice.

“...has allowed me to ask questions that would not have surfaced any other way. It has enabled me to connect to audience experience of the work; my own experience of the work (in a systematic way); and fold this into my aesthetic agenda and the creative and design decisions that are continually being made while creating. The practice based approach has allowed me to find a research question from my art practice, drawing it from my aesthetic investigations.”
1.5 Research Questions and Objectives

The following provide examples of the type of research questions and objectives proposed by the practitioner researchers interviewed for this study.

- What design strategies do I need to employ in order to create interactive artworks that stimulate play?
- What are the effective and affective means by which creators and audiences can store and retrieve video files for communication and entertainment?
- Can theories and methods from the field of HCI contribute to the curation of interactive art, and if so, how?
- Can an understanding of audience experience be the basis for an aesthetic framework of interactive art?
- How can one design effective interfaces for musical expression?
- Can the use of simulated physical models help facilitate rich, conversational interaction with in musical software?
- How do musicians interact with this kind of software?
- Which characteristics of the software help or hinder creative use of its features?
- How to create a quantifiably measurable interactive art system that facilitates presence engagement within a digitally immersive environment.
- How to contribute new knowledge about human-computer interactions through the measurement and analysis of participant presence-based engagement.
- What is the role or significance of simulated natural systems in the generation of digital art and music? What strategies and systems can be deployed to aid human perception of simultaneous sound and vision? These two broad probes of investigation have produced many more questions through practice.
- To investigate the nature and role of emergence in relation to interactive art. This includes gaining an understanding of the types of emergence that may occur during the experience of an interactive artwork and creating emergent, interactive artworks.
- How does computational adaptation, applied to interactive installations, enhance engagement during interaction?
- Is engagement a computational dimension of interaction within adaptive installation?
- Does adaptation based on a real-time computational index of engagement enhance further engagement?
**1.6 Artefacts for PhD Submission**

The type of artefacts, installations and performances that the practitioner researchers in the interview group were developing included: interactive and tactile art and installations as well as software instruments and performances. In a majority of cases, the art was their own but in one case, artworks by other people were included in the submission by way of illustration.

The following were intended to be an integral part of the PhD submission:

- Interactive visual game: a demonstration of the game in use and a video with commentary by the candidate.

- Three interactive art installations exemplifying the concept of play: three screen based works that used sensors (floor pads) to capture participant movement.

- Experimental models of an interface system for exploring digital video built using a customised software toolset.

- Two processes of creation and exhibition that resulted in two successful artworks, illustrating aspects of collaboration between artist and curator as mediator.

- Interactive virtual musical instruments and a series of concerts which featured music composed specifically for these virtual instruments.

- Interactive system using wearable technologies intended to generate deep engagement called “presence”, an engagement where people are deeply immersed in a psychological experience.

- Interactive installations and musical recordings taking the form of an electronic arts portfolio.

- Interactive art systems that explore the role of the system as an agent in facilitating patterns of emergent behaviour.

The following were outcomes of the research that were not submitted as artefacts in the PhD. These are two cases that differ from the other eight in that both institutions in which the candidates were enrolled did not encourage the submission of artefacts alongside the written thesis.

- A series of experiments demonstrating three media types: 3D forms, animation and mixed reality interfaces using graphical user interfaces.

- A computational index of engagement for quantitatively measuring indicators of engagement within an installation environment.
2. Summary of Results

2.1 Reasons for undertaking PhD research

This summary represents responses to the following four question topics:

- Intrinsic and extrinsic motivational factors
- Access to resources and expertise
- Choice of university
- Changes in initial expectations

The ten PhD researchers interviewed were all creative practitioners. It is clear from the effort involved that the decision to embark on a PhD was far from lightly undertaken. In most cases, there were a number of barriers to be overcome: a lack of reliable funding for some, relocation across the world for others, as well as difficulties in finding the right environment for their particular research needs, and inevitably, employment and time pressures. As is to be expected, the answer to the question ‘why do a PhD?’ was different in each case when taking account of all the individual factors at work. A common impression emerged overall that the principal underlying reason was a drive to satisfy a personal need: being serious, excited, having energy, concentration, interest, freedom, opportunity and understanding, characterised the words used in most responses to the question. Nevertheless, whilst being clear that doing the work for its own sake was of primary importance, for a majority, the prospect of career benefit was highly influential in the decision to take the PhD route.

Having access to funding, technical resources, expert guidance, networking, collaboration and institutional support was, in most cases, an additional rather than central influence in choosing the PhD research path. An important additional influence was having access to a local network comprising doctoral level researchers, supervisors and other academic staff. Contact with like-minded people within the group and others associated with it, was considered very important, especially where the students’ own research involved collaboration with others. Drawing on expertise to support doctoral research requires more than library and laboratory resources: having people with expertise on hand appeared to be highly valued and added to the comfort of working in a supportive environment.

The reasons for choosing a particular institution ranged from the presence of particular supervisors and the characteristics of the associated groupings coupled with the availability of personal funding. The existence of a collegial environment was cited as an attractive feature of the research culture. For this group of students, the supervisor was viewed as an important part of the PhD process and in some cases, the overriding consideration in choosing a particular university. The supervisor had been located mainly through personal face-to-face introduction. Qualities of a good supervisor mentioned were: knowing the candidate’s area of research to a sufficiently high level from a broad perspective rather than specific knowledge, being sympathetic and a good communicator.

There were many changes from the initial expectations of what it would be like to do a PhD mentioned. Aspects of the research process that had not been anticipated included how much new knowledge about tools, writing for publication and methods for conducting research, proved to be necessary. More broadly, some expressed the view that it takes time to establish a true research focus and making real progress can be a slow business. See Report CCS-DA-R1-V2 for details.
2.2 Research and Practice

This summary represents answers relating to the following:

- whether the term ‘practice-based research’ was familiar and considered to be applicable to each person’s personal research
- what part practice played in the research and its contribution to new knowledge
- the role of theory in doctoral research
- whether or not there was an understanding of other models of doctoral research.

The term “practice-based” was not necessarily familiar to the interviewees as a label for research when they first began their doctoral studies. However, they all believed that the term applied to their style of PhD. Most interviewees were experienced practitioners and existing practice was central to the research process. Practice was the foundation upon which all built their individual approaches to the development of the research.

The role of practice in research ranged from a focus on making artefacts to generating research questions and the answers to those questions through practice. Practice meant the designing, developing and making of artefacts as a central activity in the research process. In most cases, this meant that a submission would include a representation of a work either as a defining element of the total outcome or (less often) as illustrative of the concepts and new understandings that had emerged. The role of practice in relation to the research began with the generating of questions carried out in two distinct ways: in one, the starting point was to explore the literature of the field and, in parallel, to generate questions relating to practice; in the other, the questions came directly out of the basics of practice without reference to theoretical knowledge, at least in the first instance.

Being able to demonstrate that the outcomes of the PhD have made a contribution to new knowledge is a basic requirement of any doctoral assessment. About half of the interviewees were unable to say anything specific about the way their practice was intended to contribute to new knowledge. Most found it difficult to encapsulate their contributions. Contributions that were mentioned included new models and frameworks for exploring the nature of practice and enabling the sharing of practice-based processes. The role of the artefact and the practice that generated it, seemed to contribute to knowledge more obviously where there was a form of evaluation study.

Theory played a part in the research and was considered to be important. For the most part, the theory was drawn from different disciplines in a largely pragmatic kind of way. The wide range of theoretical interests reflected the number of highly individualised doctoral programmes and the inter-disciplinary nature of the research.

There were different levels of awareness about the typical characteristics of a PhD. A minority knew about models in other disciplines. In most countries, the funding sources and the regulations that govern them, constrain what the student chooses to do but the standards applied to them differ from institution to institution and from country to country. One issue was the status of the rules governing inclusion of artefact outcomes in PhD submissions and whether an artefact could be included in the submission. The practice-based model of PhD research as exemplified by these practitioners is characterised by a high level of personal engagement; the heart of the practice-based PhD is that practitioners aim to explore and enhance their practice, as distinct from becoming an expert in research. For that reason, other models of PhDs, typically with a culture of peer review and generally agreed standards of evidence-based knowledge, do not necessarily provide an appropriate vehicle for practitioner researchers. See Report CCS-DA-R2-V2 for details.
2.3 PhD Research and the Artefact

This summary describes responses to questions as to:

- whether or not artworks will be submitted as part of the PhD
- whether or not exhibiting the work is important to the PhD

A majority of the interviewees were intending to submit artworks of various forms as part of the PhD submission. Where observational studies had been conducted, video records of audience behaviour and comments were to be included. The materials, systems and other documentation included in practice-based PhD submissions do not enter the archival records in the same way as the complete written theses, of which copies are lodged in the university library to be available for borrowing in the public domain. This means that the archiving of the records of artefacts, installations and performances as creative outcomes from practice-based research is incomplete.

Of the ten PhD students interviewed, five had already included examples of their artworks in a public exhibition space either in developing or final form and two others intended to do so. The opportunity to install interactive works in a public space is particularly important because of the need for audience participation in the realisation of the work itself. For those who installed work in an exhibition space, it provided an opportunity to prepare for an actual installation, introducing deadlines and technical demands that a studio-based installation did not. In addition, being able to see the work in public offered an opportunity to reflect in the light of “casual watching”. It also enabled the public space to be used as a research laboratory and this was an important contribution to the evaluation studies that were undertaken. Exhibiting works in a public space was critical to the development of research thinking as well as to the progression of the works themselves. See Report CCS-DA-R3-V2 for details.

2.4 Research Methodology

This summary describes responses to questions as to:

- whether there had been any literature that helped carry out practice-based research
- how the methodology had been selected
- how the research methods contributed to the PhD process
- what kind of impact the methodology had had on the practice
- whether or not methods from the PhD were likely to be carried over into practice.

The literature for practice-based research in general is a relatively small body of work and, for the most part, was not considered to be an essential grounding for the researchers in this study. Many found that advice from supervisors and discussions with fellow students, practitioners and colleagues was more relevant to the pursuit of their goals. For the most part, PBR was not viewed as a discrete topic requiring a thorough understanding of its scope and methodology. Although ‘practice-based’ as a term to describe doctoral research in the arts has been around for many years, the existence of a discipline, defined by a body of theoretical literature, agreed methods and an archive of precedent theses, is yet to be established.

There are no commonly agreed research methodologies in practice-based research and, for these students, a major task was to develop an approach fitting for their own needs. Inspiration and guidance from theorists and artists/practitioners working in relevant domains also played a part in the development of the individual research frameworks. The methodologies selected were different according to the particular
perspective of the practitioners: artists, musicians, technologists, and evaluation specialists shared information about methods but applied them in different ways methodologically. In eight of the ten cases, methodology had proved to be a highly significant aspect of the research, and in five instances, had given rise to a specific outcome that was included as a contribution to new knowledge.

Of the ten interviewees, six had carried out, or were intending to carry out, evaluation studies of their works with a view to including findings in the PhD submission. The same people were for the most part also engaging in reflection of a more informal kind. There were common features across the different research processes, such as having cyclical stages of design and evaluation for an iterative artefact development process. This kind of iterative development also involved reflection on practice during the process, which sometimes led to a reassessment of existing assumptions and sometimes to the identification of the ‘real’ question. In parallel, or subsequent to the first artefact creations, this was followed by the derivation of frameworks and strategies for the design and evaluation of future works, which were then judged for effectiveness in formal or semi-formal studies.

Evaluation studies were found to be beneficial, not only in providing substantive outcomes for the thesis, but also to the practitioner’s understanding of the nature of their work. As a means of confirming personal, ad hoc impressions, the results of formal studies proved useful. By taking a theoretical view of how a person might interact with your work and subjecting it to an in-depth observational study of what actually happened in practice, the practitioner researchers were able to strengthen their understanding, acquire more detailed knowledge or be made aware of unexpected events.

Reflection in practice was familiar to most and appeared to play a central role in the practice-based research process. It was often used to support the making of works and handling feedback from audiences about those works. For some, it was central to the whole research process within which the analytical processes of more formal evaluation studies sat. In other cases, reflection on practice was adopted prior to the more formal evaluation studies. The benefits of reflection on practice were recognised to be valuable not just as part of the research but as a normal part of the creative process.

For some students, the research dominated the time spent and the choice of whether or not to pursue a particular activity in practice. The issue of whether the extent of the evaluation work would become a part of normal practice was raised. Most found it useful but time consuming and therefore having an impact on the practice itself. The question as to whether or not the research process was good for practice was an unresolved issue for a number of people. That the results of evaluation could produce something unexpected, or that confounded initial expectations, had been experienced in a number of cases.

On the whole, whilst acknowledging the adjustments needed from normal practice outside the PhD context, the benefit of developing a research methodology was recognized as potentially transformational to the way practice was undertaken. A majority of the interviewees thought that they would continue to use the methods developed during the PhD in their ongoing creative practice.

See Report CCS-DA-R4-V2 for details.
2.5 Reflections and Advice

The final questions elicited views about the following:

- the influences of PhD research on future personal practice
- whether or not the research dominated the practice or vice versa
- what was considered to be the best achievement
- what advice they would give to a prospective PhD student.

The benefits of practice-based research outweighed the disadvantages on the whole, although it has to be noted that the dangers to practice it presented were not inconsiderable. It was acknowledged that there is a price to pay for taking time out to do a PhD. A major influence of doctoral research was being able to understand more clearly the fundamentals of practice and what was important and interesting about it. With that understanding also came an improved ability to articulate in spoken and written language. In the context of the practice-based research of this group, there was a considerable range of fields and disciplines that provided the students with opportunities to communicate with different “mindsets”. That encounter with different ways of thinking was both challenging and rewarding. They were aware that the world beyond the PhD includes having access to informed and expert people and new technologies unfamiliar to them prior to the PhD. The process introduces the student to new opportunities and wider people networks that last beyond the PhD.

The PhD contributes to analytical and theoretical thinking and this is considered to be beneficial to practice. One person drew attention to a dilemma inherent in combining research and practice whereby the demands of evaluation can be such that time for artistic thinking is diminished to the detriment of the core concerns of practice. The clash of cultures that can occur when artistic people work collaboratively in scientific and technological environments suggests a potential danger for the practitioner. Different expectations and methods of working may confront the practice-based researcher with obstacles that will require determination to overcome. When practitioner research was conducted in smaller institutions such as art colleges, the local creative culture was not driven by the larger demands of academic requirements. Since the incorporation of smaller institutions into universities, practitioner research is subject to the same assessment considerations as other academic disciplines.

One of the major issues raised was the amount of writing that has to be done to achieve a thesis. Being a practitioner does not mean that the artefacts themselves can stand-alone and speak for themselves. A particular problem to be alert to is that the traditions of academic recognition give more reward to theory papers than to the outcomes of creative work. Recognising the need to create a balance between the research and the practice aspects of the PhD depends upon the nature of the work itself. The demands of artefact creation can be overwhelming and the problem is often how to make time for the research; for others, the business of writing takes time and draws effort away from the creative practice.

Advice to prospective PhD students ranged from high ideals to practical considerations. The role of originality and individuality figured highly and prospective students were urged not to follow the views of others slavishly. They were advised additionally to avoid moving too quickly into the ‘rational’ aspects of the work but retain the imaginary elements as long as possible. Keeping hold of the primacy of the studio practice is essential because to lose that might threaten creativity altogether. See Report CCS-DA-R5-V2 for details.
3. Comments and Questions

The following commentary arises from the outcomes of the interview analysis. It represents a series of issues that require further consideration by those interested in the development of doctoral research programmes for creative practitioners. From the commentary, questions to research providers and prospective students are posed.

There is a basic assumption underlying the comments and questions that practice-based research is a growing, but problematic, area of doctoral research. In particular, the university system has not taken account of its particular characteristics and needs and the associated regulatory practices are in an unsatisfactory state. At the same time, within the practice-based community, there is a need for more explicit and consistent methodological and supervisory guidelines.

3.1 Supporting practice-based research

Attracting and supporting students

Q. How can universities attract practice-based researchers of high quality?

Being able to undertake a practice-based PhD is, as with other kinds of PhDs, dependent upon having studentships available with accompanying organisational support. The funding is very important but, in choosing between institutions that offer research studentships and a wealth of resources, a decisive factor is the quality of the supervision. Students are prepared to relocate across long distances where the right supervisor, combined with student funding, is available.

Improving supervision

Q. Should being a practitioner be a requirement for supervisors of practice-based doctoral research?

A successful practice-based PhD programme depends upon the availability of supervisors with appropriate skills and expertise. Supervisors must have a high degree of expertise and experience of the candidate’s particular area of research. Whilst the choice of a particular supervisor depends upon domain specific expertise, other qualities to be considered are the ability to communicate, be open-minded and empathise with the student. For practice-based supervision, academic qualities need to be combined with practitioner experience and the ability to engage with the particular characteristics of practice-based goals and methodologies.

Developing a research culture for practice-based research

Q. What are the key features of a collegial environment and how can it be encouraged in a research group?

If the option to undertake a PhD is to be extended further to creative practitioners, many of whom are likely to be mature students, consideration needs to be given to the kind of culture and social environment that is suitable for this kind of research. Supporting doctoral research not only requires more than library and laboratory resources but also the availability of an appropriate social context. The existence of a collegial environment around a research group is a vital feature of a successful research culture. This can be achieved only by enabling everyday exchanges, as well as regular meetings and research seminars, where students can test out developing
ideas and experience constructive criticism from their peers. A genuine collegial culture works best where like-minded people can share interests on common ground as distinct from having contact with PhD students in general.

Research methods courses for practice-based research

Q. What is an appropriate form of preparatory work for research for practice-based researchers?

Universities wishing to extend their research programmes in the practice-based area would be advised to review the type of support they are able to provide to students and supervisory staff. Providing research courses in methodology is important and a normal part of current day provision: in the case of practice-based methodology, this area should be included in student research methods courses and training courses for supervisors. However, for creative practitioners, this kind of support is not likely to be a critical factor in attracting students in the first place.

3.2 Research and Practice

Practice-based research and academic research discourse

Q. Should there be an agreed set of academic guidelines for the practice-based PhD? If so, what form should they take? Are there existing guidelines to be drawn upon?

Most of the practitioners researchers interviewed for this study appeared to be following agreed procedures regarding the research process that resulted in research questions, the creation of artworks and methodological frameworks for formal studies that supported the generation of evidence towards a contribution to knowledge. This differs from the findings of Clements and Scrivener who found that there was “a lack of conformity to the discursive formation of academic research, suggesting that either artistic research is fundamentally different from other research domains or that the practice-based research community has not come to terms with the generic research discourse.” (Clements and Scrivener, 2008)

In the study under consideration here, the role of practice in relation to the research began with the generating of questions carried out in two distinct ways: in one, the starting point was to explore the literature of the field and, in parallel, to generate questions relating to practice; in the other, the questions came directly out of the basics of practice without reference to theoretical knowledge, at least in the first instance. The role of the artefact and the practice that generated it, was seen to contribute to knowledge more obviously where there was a form of evaluation study. Theory played a part in the research and was considered to be important.

Models of PhD research

Q. Is practice-based research compatible with other academic models of the PhD?

The practice-based model of PhD research, as exemplified by the practitioners interviewed for this study, is characterised by a high level of personal engagement. At the heart of the practice-based PhD, practitioners aim to explore and enhance their practice, as distinct from becoming an expert in a research topic. For that reason, other models of PhDs, typically with a culture of peer review and generally agreed standards of evidence-based knowledge, do not necessarily provide an appropriate vehicle for practitioner researchers. Having said that, some important features of traditional PhD research such as establishing research
questions, generating results from studies and publishing in peer reviewed journals were accomplished by this group.

3.3 PhD Research and the Artefact

Q. Is there are need for better methods for recording and archiving the artefacts and materials emanating from practice-based PhD submissions?

The role of the artefact in a PhD submission and the way in which it supports a research contribution to knowledge is an underdeveloped area of discourse with notable exceptions. The lack of clarity about the role of the artefact is reflected in the neglect of these outcomes especially considering their potential value to the creation of a body of precedent examples for future researchers. The materials, systems and other documentation included in practice-based PhD submissions do not enter the archival records in the same way as the complete written theses, of which copies are lodged in the university library to be available for borrowing in the public domain. This means that the archiving of the records of artefacts, installations and performances as valuable outcomes from practice-based research is unsatisfactory.

The exhibition in the research process

Q. Should exhibiting works, as part of the research process, be a necessary part of the practice-based PhD?

Exhibiting works in a public space supports the development of research thinking as well as the progression of new works. It provides realistic preparation for an actual installation and an opportunity for reflection in the light of audience experience. It also enables the public space to be used as a research laboratory providing a facility for more extensive evaluation studies.

3.4 Research Methodology

Practice based research methodology

Q. What is to be gained or lost from explicitly including methodology in a practice-based PhD?

Although ‘practice-based’ as a term to describe doctoral research in the arts has been around for many years, the existence of a discipline, defined by a body of literature, agreed methods and an archive of precedent theses, is yet to be established. There is no commonly agreed research methodology for practice-based research. Students mainly rely on guidance by example from other practitioners for the development of their research frameworks. In many cases, methodology is ignored altogether. In five of the ten cases interviewed for this study, methodology had given rise to a specific outcome that could be considered to be a contribution to new knowledge.

Evaluation in Practice-based Research

Q. What are the appropriate forms of evaluation for practice-based research?

Evaluation studies were found to be beneficial, not only in providing substantive outcomes for the thesis, but also to the practitioner’s understanding of the nature of their work. The results of evaluation produced unexpected outcomes, some of which confounded initial expectations in a number of cases. As long standing experience in Human Computer Interaction (HCI) has shown, it is relatively easy to derive quick
assessments of the effectiveness of a system by subjecting it to informal user opinion from which obvious deficiencies will be revealed. However, in order to understand the true qualities of any system in depth there is a need to carry out more extensive studies over time with different kinds of users. For that purpose, structured methods of data gathering and analysis are needed that create a context for looking harder and more carefully in order to avoid drawing superficial, and sometimes misleading, conclusions. Practitioners who had undertaken evaluation studies in more depth that they had become aware of the benefits to achieving greater understanding of their works and audience interaction.

Research and Creativity

Q. How can research be reconciled with creative practice?

From the experiences of the participants in this study, the benefits of practice-based research outweigh the disadvantages on the whole. However, the dangers to practice it presented were not inconsiderable and achieving a balance between research and practice is difficult. The reconciliation of so-called ‘analytical thinking’ and creative thinking was an issue for some people in respect of the impact on imagination and keeping multiple options open.

The role of originality and individuality figured highly and prospective students were urged not to follow the views of others slavishly. They were advised additionally to avoid moving too quickly into the ‘rational’ aspects of the work but retain the imaginary elements as long as possible. Keeping hold of the primacy of the studio practice is essential because to lose that might threaten creativity altogether.

Regulatory Influences on Practice-Based PhDs

Q. What regulatory changes are needed in order to facilitate the best quality practice-based research?

Q. Should national research quality measures include artefacts and other outcomes from practice? If so, what criteria for assessment and guidance to examiners are required to ensure quality and parity?

For practice-based PhDs, a critical difference from standard PhD models is the existence of regulations that validate the contribution that artefacts can make to the research process and its outcomes. For practitioners, the creation of artefacts, installations and performances is central to the research aims. The rules and regulations that govern the place of artefacts in PhD research differ between institutions and from country to country. Even in the case of those whose university did allow for the inclusion of such items as part of the validation of research throughout the organisation, this was in the face of national regulations, which excluded such validation (DEST v HERDC).

PhD examination practices: the viva and PBR

Q. What form of examination is needed for the assessment of practice-based research?

Q. Should a viva be mandatory?

The viva system permits examiners to question candidates about their PhD submissions face to face in order to resolve any unanswered questions not addressed by the thesis. The practice is prevalent in the UK and Scandinavia and other parts of
Europe (and USA?) but in Australia it is not normal practice. Examiners in the Australian University system do not as a rule see the exhibitions of candidates work as part of the examination process. Examiners see only the written thesis and any electronic material included with the thesis and assessment takes place by written report only. This means that the inclusion of material pertaining to artworks must be self-explanatory. A question needs to be asked as to whether this is an appropriate way of examining practice-based PhD submissions particularly where artefacts, performances and exhibitions are included.

4. Advice to Prospective PhD students

The students interviewed for this study were asked what advice they would give to someone thinking of doing a practice-based PhD. Advice ranged from high ideals to practical considerations. The advice mentioned the time and years of effort required and the amount of sacrifice needed of other aspects of life.

As creative practitioners, they emphasised the importance of originality and individuality, and the dangers of adopting the views of others slavishly. They advised avoiding moving too quickly into the ‘rational’ aspects of the work but trying to keep hold of the imaginary elements as long as possible. For the first two years, students were advised to keep taking risks and imaginative leaps because later on the process will change and become more “fact-based”. This is presumably a reference to the need to gather information for the thesis write-up and the justification of the contribution to new knowledge.

Keeping hold of the primacy of the studio practice and the drive to create artefacts must be achieved because to lose that might threaten creativity altogether. There is a real danger that the creative person may be adversely affected by the process if they are not clear about what they are getting into and what is required of them.

The advice regarding motivation referred to the need for a PhD in academia. Those who had experienced part time research advocated doing it full time.

In choosing to do a PhD a candidate needs to prepare well by spending time finding the right programme in a suitable institution with the right personnel. This involves identifying an appropriate supervisor and deciding if this is the right person for your work and you.

Make sure you choose a good supervisor but not just on the basis of a large reputation. The supervisor must be able to communicate well and be open to you and your ideas. You need to feel you could work with that person.

Join in with others. It is vital that you are prepared to engage with a research environment fully. It is not just a matter of doing your practice as before but a serious research project.

Ask yourself how you wish to develop your thinking: is it through making and reflecting or through reading and reflecting? The need to do all these things is a requirement if the example of these practitioners is anything to go by.