

Preparedness for Postgraduate Study: A survey of the effectiveness of existing research methodology offerings within the Faculty of Health Sciences, DUT.

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Introduction

The research agenda within the University of Technology (UoT) arena has historically been neither as well-developed nor as actively pursued as it has been within the traditional Universities. More recent imperatives in Higher Education have necessitated an 'acceleration' of postgraduate qualification, and increasing pressure to publish across all Higher Education Institutions (Council on Higher Education, 2009). These pressures have been felt particularly within UoTs, in which there are typically a smaller pool of PhD supervisors, higher academic teaching loads amongst potential supervisors, and less intrinsically 'academic' students.

Over the last decade, the researcher has been increasingly absorbed in the supervision of research, and the transformation of undergraduate students into self-aware, critical thinkers. Much of this teaching has been formative and conducted 'one-on-one' across a desk. Much of this teaching has also been necessitated by what is perceived to be a distinct pedagogical weakness in the preparation of students for postgraduate research. Students appear to be 'thrown in at the deep end' and generally demonstrate poor conceptualisation of both the objectives and pragmatic considerations of conducting scientific research.

In the researcher's view, these deficiencies have a negative impact on the progress of research, the research experience of students, and the attainment of the true educational outcomes of postgraduate study (which is the transformation of the student-researcher into a developed critical thinker and societal agent of change), and represent a challenge that needs to be addressed. The ever-changing and highly-variable educational base upon which the development of the postgraduate student is based, which include changing student demographics (and the attendant collisions of world views and issues of epistemological access), seemingly deteriorating levels of literacy (or, minimally, decreasing enthusiasm around reading) and relatively higher supervision loads on increasingly stretched research supervisors, are clearly important factors to be evaluated in addressing the challenge.

It was the researchers experience in the supervision of students across various disciplines within the Faculty of Health Sciences, that the preparation of students for postgraduate study, by way of 'research methodology' courses of varying depths and durations, workshops and other cohort-based activities was varied. Preliminary observations, regardless of the specific departmental preparatory offering, were that the period of exposure to new research concepts was too brief, too conceptually and

informationally dense, and there was insufficient exploration of meaning within the references of the specific discipline.

Within this context it was regarded as imperative that the existing practices with respect to the preparatory training of postgraduate researchers within the Faculty be surveyed, interrogated and consolidated/stream-lined in terms of the most current and effective theoretical models and technologies. In line with his philosophy that education should, *inter alia*, be transformative, the researcher further sought to understand how the student's self-awareness and understanding of him/herself and the world in which he/she is to operate is being extended and enriched and how his/her identification as a dynamic, intelligent and socially-aware professional is being supported through his/her engagement in the concepts and practice of postgraduate research study.

Conceptual Framework

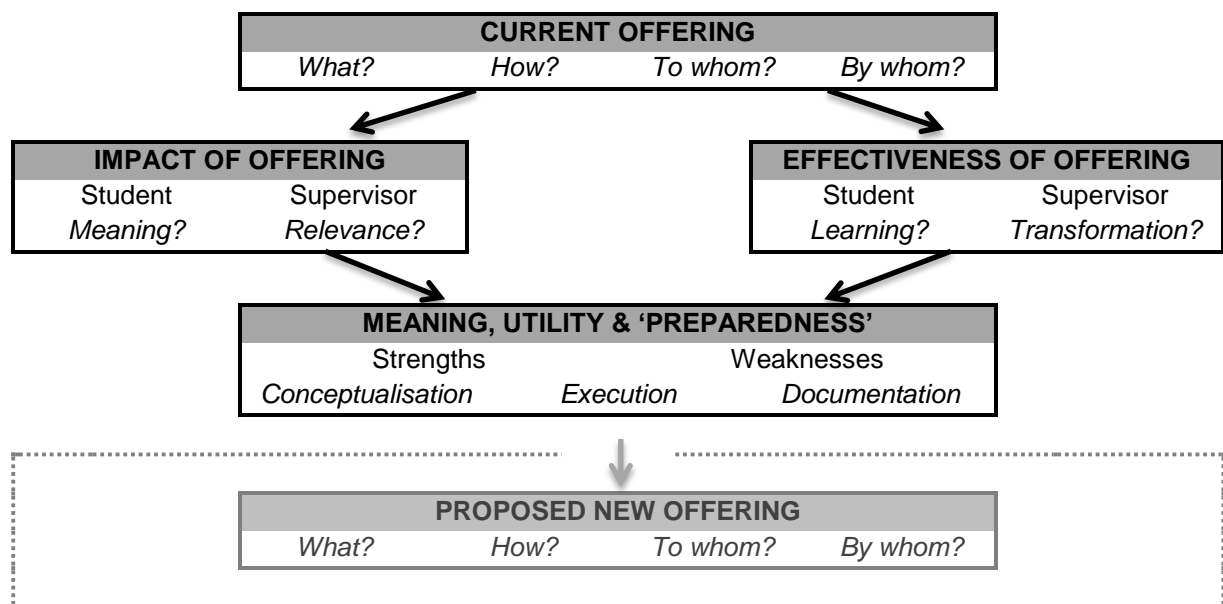


Figure 1: Schematic representation of Conceptual Framework

The research project was conceptualised within an exploratory descriptive framework in which it was clear to the researcher that a 'problem' existed within the current postgraduate research methodology offerings within the Faculty of Health Sciences at DUT, but the nature, scope and relationships, causal and otherwise, were either unclear or poorly defined. As such, the project was envisaged to draw on available literature that served to describe the current offerings (in terms of their scope, duration, pedagogical objectives and assumptions). The 'desk-top' review of such documentary evidence was envisaged to provide some quantitatively descriptive data and preliminary insight into the pedagogical strengths and weaknesses of the current offerings and practices within the Faculty, but the effectiveness of current offerings, in terms of their usefulness in preparing students for postgraduate research and

supporting effective research supervision by academic staff, was to be evaluated through an overtly qualitative approach. Focus-group discussion with research supervisors and electronic questionnaire submissions by postgraduate students would facilitate a more nuanced description of the research problem towards the formulation of a context-aligned Faculty-based postgraduate research offering, for subsequent implementation and evaluation for effectiveness within a design research paradigm (Dabbagh and Banner-Ritland, 2005).

Methods

The project consisted of four phases of enquiry and interrogation:

- 1) Simple identification and classification of existing offerings and practices within the Faculty;
- 2) Heterogeneous focus group discussion with research supervisors around their experience of the research supervision process and their insights into perceived strengths and weaknesses of students entrusted to their care;
- 3) Electronic survey of students currently engaged in Postgraduate research within the Faculty around their current experience of the research process and their insights into the perceived strengths and weaknesses of their induction into postgraduate research;
- 4) Triangulation of data for purposes of identifying both critical components of successful postgraduate research induction, and practices that appear to contribute positively to the research experience, its progress, and the support of the postgraduate's development as a dynamic, intelligent and socially-aware human being.

Results

Source materials for identification and classification of current offerings and practices within the Faculty of Health Sciences were received from seven programmes. These included study guides, workshop programmes, lecture notes, handouts and tutorial materials. Two broad models for preparation of students for postgraduate research were identified: in the case of full-Masters programmes a 5-day intensive workshop, varyingly supplemented by specific (one-day) ethics or data analysis workshops, was the norm, whereas the two coursework Masters programmes both applied a weekly contact over a 3-6 month period, followed by one-on-one consultation over a further 3 month period. Across all programmes, the materials provided emphasised theoretical content over practical application and there was a notable variation in the provision of supplemental materials, emphasis on academic reading and writing, provision of examples, and scope for immersion in specific research topics. Assessment of learning outcomes was identified as an area of weakness, with almost all programmes viewing the

proposal as the most important (or only) basis of assessment. Accompanying written descriptions by departmental research co-ordinators reflected a consistent perception that the existing offerings conveyed content to a greater or lesser degree, but were largely ineffective in preparing students for the practicalities of research due to insufficient contact time, inadequate exposure to supplemental texts and little scope for staged practical application.

These preliminary observations were confirmed in the focus-group discussion with seven experienced research supervisors. Participants expressed the view that postgraduate students, despite the induction offerings, were 'totally not prepared' or 'over their heads'. There was a tremendous need for 'hand holding' and a notable reliance on the capacity and motivation of the supervisor to convert theory into practice. Supervisors consistently emphasised that students, regardless of their initial motivations to enrol, were typically unaware of the personal requirements and impact of PG study, and that there were inadequate controls on admission to PG study. Supervisors were consistently 'dumped upon' with supervision and found themselves under increasing pressure to 'plug gaps'. Notwithstanding the evident difficulties, the participants emphasized the personal nature of the supervisor-student relationship and expressed high levels of personal satisfaction with their own learning and the personal development of students under their supervision. The transformative impact of research engagement for both supervisor and student was identified as one of the most critical and rewarding aspects of the PG research endeavor.

The collective experience of supervisors was somewhat at odds with those of students currently engaged in research within the Faculty. Responses were received from four programmes within the Faculty, with 67% of respondents engaged in full-Masters studies and the remainder engaged in coursework Master's research. Student responses indicated a general satisfaction with departmental efforts to prepare them for research, although the identification of a topic was indicated as being the most successful aspect of this preparation, and the conduct of a literature review as being least successful. Research students indicated satisfaction with departmental and Faculty administration of their submissions, but dissatisfaction with institutional processes. As was expected, there were notably more positive responses to questions relating to the relationship with supervisors and the quality of supervision.

In contrast, responses in respect to the intellectual climate within the Faculty and departments were notably negative, particularly in respect to feeling integrated into the department and being stimulated by the departmental or faculty research culture and environment. Respondents did, however, recognize that the research process contributed positively to the development of more generic skills, most notable to the quality of their ideas and their ability to present these ideas in writing. The overall research experience was reported as somewhat indifferently

positive, with the lowest levels of satisfaction/agreement indicated in response to the quality of the experience and the likelihood to pursue further research in an area of interest. Open-ended responses confirmed the view that students are inadequately informed of what embarking on postgraduate research will require of them and are frustrated by shifting timelines for processing their submissions.

Conclusions

This preliminary survey of experiences and practices within the faculty of Health Sciences, DUT, has identified good practices and highlighted clear areas for development within the pedagogical evaluation of current induction offerings in terms of impact and effectiveness as preparation for PG study. The survey has also confirmed the importance of research as transformative agent and provides a basis for the formulation of a context-aligned Faculty-based postgraduate research offering.

References

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