

THE DESIGN OF A PARTICIPATORY PLATFORM FOR IMPROVING HIGHER DEGREE SUPERVISION

Dorit Maor and Jan Herrington
Murdoch University, South Street, Western Australia 6150

ABSTRACT

A major trend in higher education is in the use of Web2 technologies so that the learner becomes a creator of knowledge rather than a consumer of the knowledge created by experts. There is a need in doctoral education to theorize and provide a robust framework for the utilization of social learning media to create a multifaceted platform for the practical support to help with the conceptualization of the supervision process. In this paper, we propose the design of such a platform.

KEYWORDS

Supervision, doctoral education, higher degree research, international students, Web2 technologies

1. INTRODUCTION

The supervision process of higher degree research students, (sometimes called doctoral education), is complex and demanding work that is often done in isolation from other supervisors, academics, and students. Thus there is often little transparency of the processes and procedures for the participants, the school and university administrators who are involved. Different models of supervision that exist in universities do not always enable transparency.

There is a need for clear training in this area. In a study which examined the “health” of a university’s postgraduate supervision through focus group interviews, three issues emerged: 1. The importance of the relational aspects of supervision; 2. The importance of systematic feedback; 3. “The lack of strategies to facilitate this evaluative feedback process” (Aspland, Edwards, O’Leary, & Ryan, 1999, p. 127). Earlier studies of postgraduate supervision also found that students often expressed dissatisfaction from the early stages of candidature (Powles, 1988); and often expressed anxiety about unclear departmental support or expectations, lack of supervisors’ knowledge about procedural and practical processes of the candidature, difficulties with resources availability and feelings of isolation (Parry & Hayden, 1994). Moses (1984) identified a range of professional issues such as a lack of supervisor knowledge in the area supervised, or organizational factors such as too many students per supervisor, too much administration, and poor management of research groups. These issues are still common today in the higher degree supervision.

In an empirical study conducted in Australian universities (Halse & Malfory, 2010), doctoral supervision was theorized as professional work. There are five components that were identified based on life history interviews with doctoral supervisors across five disciplines. Based on this study, the authors were able to offer a more precise discourse, language and theory for preparing supervisors for the work of doctoral supervision in universities today.

As recently as 2010, authors have been calling for a more holistic approach to doctoral education (e.g., Cumming, 2010) as well as for ‘re-envisioning’ (Nyquist & Woodford 2000), ‘reframing’ (McAlpine & Norton 2006) and ‘rethinking’ (Walker, et al. 2007) contemporary approaches to the doctorate. However, now the imperative is to theorize and provide a robust framework for the utilization of social learning media to create a multifaceted platform for the practical support to help with the conceptualization of the supervision process. In this paper, we propose the design of such a platform.

2. THEORETICAL PERSPECTIVES FOR SUPERVISION

According to Cummings (2010), doctoral education not only involves a multiplicity of activities but it reflects “an appreciation of additional factors such as historical developments, cultural understandings and professional protocols that impact on all those engaged in doctoral work” (p. 31). The use of theory and practice, according to Cummings, enables emerging patterns and relationships to be established. A number of implications emerge from this model for curriculum and pedagogy: it is better to look at it as an ecosystem consisting of many components that are related and interdependent and should be viewed as a joint responsibility with the focus on continuing improvement. There is an increased demand for access to other stakeholders such as industry partners. The current view of a highly structured approach needs to shift to a more open and flexible approach of postgraduate supervision, and a more instrumental approach can be used to improve research skills. These along with generic attributes need to develop in authentic contexts.

A recent Australian Learning and Teaching Council (ALTC) project (Hammond, Ryland, Tennant, & Boud, 2010) aimed to examine the research supervision and training provisions, together with current and future needs. This project’s outcomes highlight the importance of the changing place of knowledge in contemporary society and the changing context of research education for both supervisors and their students. According to the ALTC report, the demand for more professionalism and formalisation of the research education resulted in more transparency but practices became highly scrutinised. This development was often not appreciated by supervisors who felt that their professionalism was being undermined. There is a great need, however, to increase the sophistication of the process and to support the supervision pedagogy of both experienced and new supervisors. Diversity was found to be the major characteristic of the supervision process. The current situation suggests that research students’ academic literacies are of major concern and that the use of the technology to mediate the supervision process can be better developed and utilized.

Despite more awareness of the need to improve postgraduate supervision (Hammond, et al., 2010) and the implementation of training programs for supervisors (Luca & McMahon, 2011), our perceptions as practitioners in higher degree supervision suggest that many of the above mentioned problems still exist. A potential solution, therefore, is to make the process a participatory one, and to encourage both supervisor and supervisee to become more active and more empowered by being a participant. Social learning theory (Bandura, 1977) asserts that students learn when they are able to interact, collaborate, and cooperate in their learning. In a supervision scenario, we borrow the notion of social learning theory and expand it to participatory learning theory, where the individuals in the supervision process use social learning Web2 tools and participate in developing their own and others’ knowledge while participating in the supervision process. The major change in using the Internet and the current use of Web2 technologies is that the learner becomes a creator of knowledge rather than a consumer of the knowledge created by experts (Jenkins, 2007). To alleviate these problems, an attempt will be made to design a Participatory SuperVision Support Platform (PSVSP) to help in conceptualizing the progress of higher degree research and to provide practical support for the supervision process. The aim of this project is to design a supervision platform to support supervisors and postgraduate students in their learning journey and to enhance the process of research supervision. This project will involve the design, distribution and evaluation of innovative uses of eLearning and social learning tools for individual and community supervision. The research component will examine the relevance and acceptance of the model in higher education and, in particular, to examine the usability and effectiveness of the PSVSP for the supervision of higher degree research students. The PSVSP should be a user-friendly tool that brings efficiency and clarity to the process of supervision and makes it a sustainable process. The goals in establishing the PSVSP are:

- to improve supervision;
- to reduce drop out and increase retention, and to increase completion rates of postgraduate students;
- to develop criteria for each research stage that will be supported by the PSVSP; and
- to bring to the forefront a discussion on the quality of supervision, including completion.

3. THE SIGNIFICANCE OF THE PROPOSED ENVIRONMENT

The experiences that we have had as supervisors, our discussions with colleagues, and reading of the experiences of others, have informed this project. We have often been overwhelmed with the amount of

administrative work related to supervision, the conceptual demands and intensity of feedback that we need to provide to students. We are eager to have a technological platform that would help us function better in this area. In addition, the workload allocated by schools or universities, in most cases, does not represent the amount of work required to produce good quality postgraduate graduates.

Two recent ALTC projects on supervision (Hammond et al., 2010; Yarlalagadda et al., 2010) reported high level of dissatisfaction among supervisors regarding existing level of resources and the challenges that confront supervisors in achieving high quality postgraduate research. The University of Technology, Sydney, project (Hammond et al., 2010, p. vi) has ten relevant recommendations that are worth pursuing. Of interest are their recommendations indicating the need for additional targeted resources for supervisors and supervisor training and development, for example:

Recommendation 1: That universities provide additional ways of facilitating rich and sustained conversations about research education and ensure systems and processes are in place to support such conversations.

Recommendation 9: That universities review existing professional development programs to ensure they address the different needs of new and experienced supervisors.

This proposed project would add value to these recommendations by adding a technology-based support platform for supervisors and students to enhance the supervision process. This site will enable supervisors and students working in similar areas to interact as a group, make resources available, update relevant literature, rework drafts of chapters, facilitate one-to-one and one-to-many communications and feature invitations to external experts in the field. Students will be encouraged to share their work through participatory technologies such as YouTube and websites, to encourage public scrutiny of their work. Other important features could include links to the institution's research office, templates of mutual expectations and commitments with students, examples of styles of supervision, case studies of feedback from graduates, examples of examiners' report, conference announcements, and so on.

For supervisors, the PSVSP will provide a personal space to organise and follow their students' work and be able to observe the different stages represented in their research. This will include documents such as the revision of draft chapters, data analysis, formal documents such as ethics application, and progress reports. This will enable a transparent process for the supervisor and each student who will be given access to the PSVSP. Access will also be available for the relevant Academic Chair or other stakeholders interested in the supervisor process. This platform will yield better organisation, easier access to the latest versions of drafts, and better communication between the supervisor and the student.

For students, the PSVSP will provide a reliable framework for the supervision process, a place to interact, to keep documents, to know what is the next step in the research chain and also to access resources, call upon expert views and examine examples of chapters, theses, proposals and abstracts. A valuable feature will be a venue for group discussion. Students of the same supervisor can interact with each other and support each other to create a community of researchers in the same area of interest (such as educational technology, literacy, science, etc.), or students can invite external people to online discussions based on common procedures, such as ethical approval to conduct research. At the faculty, school or department level, the PSVSP will enable the research officer to update documents and collect of information. This role would have different access permission.

4. DEVELOPMENT, IMPLEMENTATION AND EVALUATION

First stage: An in-depth literature review will examine the process of supervision; technology that can support the supervision process; problems associated with supervision and to what extent technology such as PSVSP can help with the process.

Second stage: Build the pilot PSVSP. This can be done by modifying an open source tool, such as Moodle or Google doc, to accommodate the specific needs of the project. The value of using Moodle is its ability to integrate the supervision model into the existing ecosystem of the universities and therefore make it easier to distribute it and for the higher education sector to adopt it.

Third stage: Trial the platform with a number of supervisors across schools within Murdoch University and with two other universities.

Fourth stage: Develop the prototype, which will enable the research phase.

Fifth stage: Implementation of the participatory supervision platform with the target groups.

Evaluation: Evaluation will take place throughout the entire project. Reeves and Hedberg (2003) suggest six functions of evaluation: *Review*, *Needs assessment*, *Formative evaluation*, *Effectiveness evaluation*, *Impact evaluation* and *Maintenance evaluation*. The first three functions are appropriate for evaluating Stages 1-4 of the project. However, the remaining functions (*Effectiveness*, *Impact* and *Maintenance* evaluations) are only appropriate upon implementation, and only when an innovation has been fully operational for two or more years. These longer term evaluations will, nevertheless, be planned as part of the design.

In addition, each university involved in the project will design one or more case studies of the use of the platform in relation to issues such as style of supervision, relationship between supervisors and supervisee, cultural differences with overseas students, duration of postgraduate study, detection of early problems, the different roles of supervisors and impacts on completion rate.

5. CONCLUSION

In this study we will design, implement and evaluate an electronic environment to enable a more transparent, multilevel, effective use of a supervision system that will facilitate a participatory process for supervision of higher degree students. The recommendations suggested by Hammond et al., (2010) can be addressed by engaging with the new PSVSP, as this tool will provide technological enhancement to critical issues in postgraduate supervision and research education. By developing this new system, universities will provide additional ways for rich and sustained conversations between postgraduate students and their supervisors (the participatory element of the platform), develop the capacity for students to seek peer review during the development of their theses (using participatory technologies), increase the shift from private to public space (private and public interaction), provide resources to address academic literacy in research education, and engage supervisors in creative and innovative ways to deal with supervision pedagogy.

REFERENCES

- Aspland, T., Edwards H., O'Leary, J., & Ryan, Y. (1999). Tracking new directions in the evaluation of postgraduate supervision. *Innovative Higher Education*, 24(2), 127-147.
- Bandura, A. (1977). *Social learning theory*. New York: General Learning Press.
- Cumming, J. (2010). Doctoral enterprise: A holistic conception of evolving practices and arrangements. *Studies in Higher Education*, 35:1, 25-39 <http://dx.doi.org/10.1080/03075070902825899>
- Halse, C. & Malfroy, J. (2010). Retheorizing doctoral supervision as professional work. *Studies in Higher Education*, 35:1, 79-92 <http://dx.doi.org/10.1080/03075070902906798>
- Hammond, J., Ryland, K., Tennant, M., & Boud, D. (2010). Building research supervision and training across Australian universities. Sydney: UTS . Retrieved from www.first.edu.au/public/ALTC
- Jenkins, H. (2007). *Confronting the challenges of participatory culture: Media education for the 21st Century*. White paper for MacArthur Foundation, 2006. Retrieved from http://digitalllearning.macfound.org/atf/ct/%7B7E45C7E0-A3E0-4B89-AC9C-E807E1B0AE4E%7D/JENKINS_WHITE_PAPER.PDF
- McAlpine, L., & Norton, J. (2006). Reframing our approach to doctoral programs: An integrative framework for action and research. *Higher Education Research and Development*, 25(1), 3–17.
- Moses, I. (1984). Supervision of higher degree students: Problem areas and possible solutions. *Higher Education Research and Development*, 3, 153-165.
- Nyquist, J.D., & Woodford, B.J. (2000). Re-envisioning the PhD: What concerns do we have? Retrieved from <http://www.naufrp.org/pdf/Re-envisioning%20the%20PhD.pdf>
- Parry, S. & Hayden, M. (1994). Supervising higher degrees research students. Canberra: AGPS.
- Powles, M. (1988). *Know your PhD students and how to help them*. Melbourne: CSHE.
- Walker, G.E., C.M. Golde, L. Jones, A.C. Bueschel, and P. Hutchings. 2007. *The formation of scholars: Rethinking doctoral education for the twenty-first century*. Stanford, CA: CFAT.
- Yarlagadda, P., et al., (2010), A holistic model for research supervision of international students in engineering and information technology disciplines. <http://www.altc.edu.au/project-holistic-model-research-supervision-international-students-engineering-and-information-techn>