



Design Options for the Future Doctorate

*2015 Innovation and Development Project
Office for Learning and Teaching*

*Project Plan
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1. Project abstract

The doctorate is instrumental to maintaining quality and capacity at the highest levels of the knowledge workforce. The project proceeds from a growing perception that the Australian doctorate, while effective, is not optimised to best serve the interests of industry, academia or candidates. This project is advanced as a landmark re-thinking of the doctorate. Working from current policy and practice, the project will help Australian universities fashion targeted and effective futures for the research and professional doctorates. This project delivers research-driven options for building the quality of the doctorate in Australia, as well as a suite of resources to inform institutions and candidates. The project engages leaders in the field and extends prior institutional, national, scholarly, and international investigations into the doctorate as well as academic and professional work. It involves research and environmental reviews, proposals for policy and strategy, surveys and interviews, and consultation with Australian and institutional stakeholders.

2. Project overview

2.1 *Aims and research questions*

This study aims to produce a suite of program designs and change opportunities that engage Australian universities in advancing doctoral experiences and outcomes, which will support the modernisation and realignment of doctoral education in Australia. The project focuses on the professional and learning outcomes of doctoral education, and on using insights into outcomes to design new options for provision.

The study will respond to the following research questions:

1. What are the desirable and actual learning and professional outcomes of doctoral education?
2. What generic and specific capabilities equip doctoral graduates for professional success?
3. What essential and optimal training experiences are required to develop capabilities?
4. What suite of design options best equips the sector for steering the future of doctoral education in Australia?

2.3 *Partnership*

The 2015 OLT Innovation and Development Project is led by the University of Melbourne, in collaboration with eight other universities: James Cook University, La Trobe University, Macquarie University, Monash University, Queensland University of Technology, the University of Queensland, The University of Sydney, the University of Western Australia, and the University of New South Wales.

2.5 *Outputs*

This project will produce both knowledge and practice outcomes, and a series of high-quality, informative and sustainable deliverables. Specific project deliverables include: Detailed Project Plan, Progress Reports, Environmental Analysis Report, National Symposium, Doctoral Design Options Report, National Engagement Workshops, Project Report, several scholarly papers submitted to peer-reviewed journals, and numerous opinion articles in the news media.

3. Project rationale

Growing Australia's knowledge industries and the associated research and advanced professional workforce is becoming increasingly important as primary and secondary industries slow. The doctorate is instrumental to maintaining quality and capacity at the highest levels of the knowledge workforce, with the degree serving as a prerequisite for a growing range of professions.

Doctoral training has grown in scale and scope in the last few decades. Australia graduated nearly 8,000 doctorates in 2013, more than twice as many than in 1999 (DoE, 2013). Programs and approaches have diversified to suit different professional, industry, institutional and individual needs (Go8, 2013). Doctoral training provides new links for Australia into international research environments, generates key research revenues for universities, and makes an extensive broader contribution to socioeconomic prosperity (Cutler, 2008; DIISRTE, 2011a).

Yet the doctorate in Australia is an artefact of haphazard national and institutional evolutions, creating costly and unproductive complexities that threaten the quality of experiences and outcomes. For instance:

- There is a widening gap between general visions or ideas about the doctorate and actual practice and delivery. The lack of design infrastructure leads to adhocery and bolt-on additions.
- In many cases doctorates are not well aligned with workforce needs. Such misalignment can lead to: graduates not being seen as 'work-ready'; highly trained graduates being forced to work out of field; professional needs going unmet; and investments being made in non-optimal ways.
- Additionally, graduates themselves often have limited awareness of the transferability of their own skills and options beyond their thesis research. Similarly, many businesses have a poor understanding of the value that a doctoral graduate with highly developed research and analytical capability can bring to an organisation.
- There is a risk of the two types of doctorate—research and professional—becoming ill-defined and poorly differentiated, not least due to conflation in various data collections.
- Additionally, the professional doctorate is necessarily highly differentiated across a wide range of fields imposing different requirements, yet this is not always taken sufficiently into account in policy and education design. There is also wide variability in nomenclature across the sector, adding to the confusion (especially for candidates, employers and international stakeholders).

- There is a risk of the research doctorate becoming overwhelmed by add-ons such as skills units, university teacher-training components and generic skills elements. Such co-curricular activities are often valuable, but are not clearly conceptualised within institutions, or managed across the sector or professions, and are often seen by academics as a distraction from the presumed aim of training doctoral graduates to replace their supervisors in academic roles.
- Research candidates are from an increasingly diverse range of international, demographic and professional backgrounds. Little is known about variation across different types of candidates. Evidence-based understanding of the expectations of different segments of the candidate population is essential to advancing Australia's global positioning, particularly with respect to key benchmark countries.
- Teaching has evolved as a common part of the doctoral experience, but in many cases it risks becoming a blocker to the achievement of the intended outcomes of the doctorate (Probert, 2013). This can be due either to an overload of teaching throughout peoples' candidatures, or due to irrelevance of academic teaching to the career paths of candidates whose interests or options lie outside of academia.
- While the focus placed on completions by RTS funding metrics has brought about welcome changes in the quality of supervision and support, there are hints that it has induced a problematic shift toward 'safe' projects and candidates, with the potential to undermine Australia's place in the global production of cutting-edge research (HoRSCoIS&I, 2008).
- In building Australia's research and advanced professional workforce we need to better understand what forms of advice and supervision are most effective, the nature of current practice and capacity, and hence areas in need of development. There is a need to better understand the sort of training required for academics who supervise research candidates (CAPA, 2012).

Addressing such conflicts and ambiguities between the needs of graduates, employers and the evolution of programs is particularly pressing in view of the reconfigurations taking place across the world. It is essential that Australian universities can attract leading international candidates, and that doctoral programs and graduates are internationally competitive. We need a doctoral training system that produces people who create and lead new markets, rather than work as followers. It is essential that research training aligns effectively with broader research agendas.

There is a need for a more considered approach to the way the doctorate is designed and implemented, the way graduate numbers are managed and allocated and, more importantly, the extent to which the learning and teaching within the doctorate are 'fit for purpose'. Particular consideration must be given to whether the balance is set correctly between preparation for entrance to the academy, to other professional roles, or to intellectual development for its own sake.

Yet there has not been any substantial intervention in doctoral education for 15 years, with the last being the reduction in the length of candidature and introduction of incentives to lift completions (DETYA, 1999; DIISRTE, 2011b). Any such investigation must not only include broad consideration of practices and policies across Australia, but also comparative assessment of the Australian doctorate's alignment with those of other nations due to the extensive international portability of the qualification. This includes the need to address the potential for uneven quality and to provide a clear description of candidate outcomes beyond those expressed in the AQF, for example.

The project will produce quality-assured and productive options structured to produce better outcomes for candidates (in terms of the quality of their research education and clarified career pathways), for universities (in efficiency of selection, load, with an eye to maintaining or increasing rates of completion without diminution in quality of projects), and for Australia's knowledge industry and workforce more generally. The project will be positioned and delivered with deep reference to international contexts.

As is recommended in Probert's 2014 OLT report titled 'Becoming a University Teacher: The role of the PhD' there is also a need for coherent mechanisms in the doctorate to prepare the future academic teaching workforce (Probert, 2014). This project will address this recommendation and provide a sustainable plan for advancing this facet of doctoral education in Australia.

4. Project activities

The project is divided into five phases, with discrete activities in each phase and some overlapping activities. Each phase will involve consultation and dissemination of deliverables. Appendix A summarises the different phases of the project.

Phase 1: Project initiation

Detailed project planning will be conducted to specify, refine and affirm: aim, focus and design; leadership and management responsibilities; institutions, participants, advisors and stakeholders; outcomes and deliverables; risks, methods and workflows; schedules and key dates; and communication and engagement strategies. In practical terms, agreements will be confirmed, systems will be established, teams set up, the Project Website launched, the Project Reference Group (PRG) formalised, launch meetings convened, and ethics applications made.

As the approach illustrates, ongoing consultation is woven into this project as part of our broader aim of engendering evidence-based change and forging ongoing partnerships. A number of engagement strategies are central to this project and are designed to involve institutions as widely as possible. Working from proven approaches we will: produce a stakeholder engagement plan and activate engagement; establish the PRG and International Advisory Group (IAG) representing stakeholders and experts; collaborate with the independent external evaluator; sustain ongoing consultation via meetings, interviews, interim reports and workshops; engage candidates, academics and professional staff via the fieldwork; and build relationships with institutions via research and consultations.

After consultation with the PRG, IAG and OLT, Phase 1 will conclude with delivery via the Project Website of a Detailed Project Plan and a Progress Report.

Phase 2: Background research

Background research will be conducted to review relevant research and construct definitions and concepts.

A research review will be conducted that synthesises existing insights on doctoral education. The review will be driven by the project logic sketched in Figure 1 to yield insights relevant to doctoral outcomes, capabilities, experiences and program designs. It will yield baseline descriptions of current doctoral markets and provision. Team members have already carried out research into the various programs and mechanisms that universities have put into place as means of rethinking doctoral offerings. Clearly the notion that merely providing a supervisor and offering a research degree has long been considered inadequate by many Australian universities, leading to various changes in recent years (DDoGS, 2014). An initial sketch will be done of key patterns of provision (for instance: the standard 3.5 year PhD; the 4 year PhD with coursework; the 3 year PhD with prerequisite research masters; joint/cotutelle PhDs; and ‘sandwich’ programs that offer internship-like arrangements between sustained periods of research project development). This research review will examine the structures and programs that doctoral-granting institutions have thus far implemented to broaden or enhance doctoral training offerings (for example, transferable skills training workshops, opportunities for internationalisation, programs to enhance university teaching skills, internships and career-readiness programs). This will review how extensive or ad-hoc current offerings are, the demand and take-up, and how capabilities and experiences are evaluated alongside doctoral training outcomes and the intended doctoral graduate attributes.

Concurrent with the research review, conceptual analysis and development work will be conducted. Positioned within the operating context of Australian doctoral education, this work will develop a series of interlocking conceptual models that will be useful for framing subsequent planning, fieldwork and recommendations.

Phase 3: Environmental analyses

With the background research in hand an environmental review will consider relevant contexts, and consult with experts and stakeholders. A series of tasks will be conducted to build the evidence required for subsequent modelling and development.

- We will identify salient higher education and broader contexts. Through desktop analysis we will build a map of relevant national, institutional and international policies, strategies, practices and experiences. We will consult with targeted international and national experts and stakeholders drawing on international networks in which project team members play leading roles. Four interstate consultations are budgeted. Speaking with relevant business, industry and professional bodies and organisations is vital, not least given the need to start forging ways to boost links between Australia’s universities and industry (DoI & DoE, 2014; BHERT, 2012). We will take advantage of the opportunity to consult, engage and recruit the assembled expertise at the timely biennial Quality in Postgraduate Research Conference, to be held in Adelaide in April 2016. This work will help identify sector readiness, current practices, and salient policy dynamics.
- This series of analyses will also involve detailed study of available national and institutional statistics, and financials. Through collegial networks the team has access to extensive and as yet unanalysed information including of a longitudinal kind on doctoral experiences and outcomes. We will conduct a survey of doctoral graduates who are three years beyond completion. We will invite all institutions to participate, and survey all graduates from those institutions which engage. Will deploy methods

used in previous large-scale graduate surveys (e.g. Coates, Tilbrook, Guthrie & Bryant, 2006; Coates & Edwards, 2009). Working from analysis of the survey results, we will conduct follow-up phone interviews with around 50 graduates purposely sampled from varied academic and professional contexts. This review will build rich insights into the experiences, needs and outcomes of doctoral education.

- At this stage we will also work with an expert economist to develop broad projections of the demand for doctoral-qualified graduates. This is a highly specialised area of the workforce and economy which has proved difficult though not intractable to model recent policy projects.
- Doctoral learning outcomes will also be mapped at this stage. To render such analysis feasible and deliver the information required for subsequent analysis the team will enact methods used in the international Tuning Projects (Tuning, 2014; Coates & Richardson, 2012). These, in essence, involve a series of preliminary thematic reviews that lead into a series of iterative consultations which deliver a validated suite of suitably specified learning outcomes. The team has international experience in the application of such methods, including in relation to professional and academic work (Coates & Richardson, 2013). As mentioned, we recognise the need to look beyond current empirical arrangements and factor broader imaginative analysis into this process. Part of the method involves inviting experts to think beyond current arrangements to forecast jobs and hence learning required for creating and meeting future scenarios.

After consultation with the PRG, IAG and OLT, Phase 3 will conclude with delivery via the Project Website of an Environmental Analysis Report and a Progress Report.

Phase 4: Validating designing options

With research, concepts and evidence to hand, Phase 4 will involve construction and validation of a taxonomy of doctoral program design options for the doctorate in Australia. As noted, each of these design options will articulate various training experiences and program structures relative to intended learning and graduate outcomes. Each design option will be developed in the form of a strategic plan, contextualised with reference to research and practice, exemplified with reference to a series of case studies, and explicated in terms of relevant quality, activity and productivity dimensions. An overarching taxonomy will underpin the design options, providing a broader conceptually driven architecture for guiding policy and practice regarding the doctoral education in Australia. Indicative change strategies will be built into each design option.

The design options will be refined and validated through a range of qualitative reviews.

- We will seek feedback on the design options from national and international experts and stakeholders, including industry representatives and potential graduate employers.
- Initially, we will convene a National Symposium at which we will lead a national discussion with all doctoral-granting institutions and key stakeholders. This will enable us to explore and test the team's ideas, and further identify links between current programs and proposed new options.
- Case studies of distinctive and effective practice will be conducted for each design option, focusing on national priority fields and including interviews with productive institutions, supervisors, support staff and candidates.

In addition to the National Symposium, after consultation with the PRG, IAG and OLT, Phase 4 will conclude with delivery via the Project Website of a Doctoral Design Options Report and a Progress Report.

Phase 5: Reporting and dissemination

This project is designed to impact practice, policy and research, so a multifaceted approach to sector engagement and reporting has been incorporated. Various engagement opportunities have been incorporated throughout the project, with these being drawn together in a series of culminating activities in the concluding phase.

The final Project Website will be released, with feedback sought from institutions and stakeholders across Australia and abroad.

A succinct Project Report, tentatively titled ‘Design Options for the Future Doctorate’ will be drafted that brings together all key insights and outcomes produced in the project. This Project Report will be written for a broad readership, and for universities to use as a reference. This Project Report will compile the background research and environmental analyses, and articulate the design options and case studies. The Project Report will draw together much of the existing writing, but it will also for the first time elaborate the new insights and strategies validated throughout the project to inform design of the future doctorate in Australia. It will include a high-level summary and recommendations for future work. A range of publicity materials will be developed, and technical materials will be placed in appendices. Resources will be delivered via the Project Website.

During the drafting stage of the Project Report, a series of National Engagement Workshops will be convened across five states/territories. The purpose of these meetings is to bring together all insights from the project, to discuss the findings, and to agree on priorities for further action and work. The Project Report will be revised in light of the feedback before delivery. As the reference and prior project lists demonstrate we have delivered such workshops for many prior assignments for Carrick/ALTC/OLT, the Australian Government and institutions.

The project team members have substantial institutional, national and international experience disseminating outcomes in ways that build awareness, appreciation and change. We will use diverse and sustained dissemination media and channels to ensure that practice changes in the sector. Both scholarly papers and contributions to newspapers and magazines will be made. Sustained effort will be put into informal dissemination through the team’s professional networks. In addition to the formal products specified in this proposal, dissemination will include conference contributions and articles for professional and sector publications. A priority will be to ensure the widest geographic and institutional dissemination.

After consultation with the PRG, IAG and OLT, Phase 5 will deliver the Project Report, National Engagement Workshops, the final Project Website, a Progress Report, and the Financial Acquittal.

5. Collaboration with other projects

For the 2015 funding (Rounds 1 and 2), OLT funded three other doctorate-related projects. In addition to this project, these projects are led by the University of Sydney (Associate Professor Simon Barrie), RMIT University (Professor Richard Blythe), and Edith Cowan University (Dr Natasha Ayers). Where possible the project team will aim to collaborate with the other teams. Please see Appendix B for a list of the 2015 funded projects.

6. Budget and funding

The budget will be managed and administered by the University of Melbourne. Updates will be provided at set intervals practically when the progress report is due. Other institutions will invoice the University of Melbourne. All travel and accommodation will be booked by the University of Melbourne, which can secure very competitive rates and manage the administration around travel.

7. Project team

Combined, the participating institutions in 2013 represented around 5,700 enrolments (around half) and 4,340 completions (over half) of total doctoral activity in Australia (DoE, 2013). The team (see Table 1) brings together experts in doctoral education, institutional strategy, tertiary policy, institutional management, quality enhancement, institutional research, learning and development, and the academic, professional and research workforce, and include people with diverse disciplinary backgrounds in biochemistry, economics, education, engineering, history, humanities, linguistics, literature, medicine, philosophy, policy, psychology and sociology.

Table 1: Project team

Name	Role	Organisation
Hamish Coates	Project Director	The University of Melbourne
Paula Kelly	Project Researcher/Manager	The University of Melbourne
Emmaline Bexley	Project Researcher	The University of Melbourne
Mollie Dollinger	Project Researcher	The University of Melbourne
Kenneth Moore	Project Researcher	The University of Melbourne
Gwilym Croucher	Project Researcher	The University of Melbourne
Marie Carroll	Project Expert	University of Sydney
Kate Wright	Project Expert	University of Western Australia
Helen Klæbe	Project Expert	Queensland University of Technology
Nick Mansfield	Project Expert	Macquarie University
Helene Marsh	Project Expert	James Cook University
Alastair McEwan	Project Expert	University of Queensland
Chris Pakes	Project Expert	La Trobe University
Laura Poole-Warren	Project Expert	University of New South Wales
Stephan Riek	Project Expert	University of Queensland
Zlatko Skrbis	Project Expert	Monash University
Dick Strugnell	Project Expert	University of Melbourne

Figure 1 shows the advisory structure. This figure refers to the:

- Project Reference Group (PRG): potential members noted below;
- International Advisory Group (IAG): potential members noted below;
- Project Management Group (PMG): Hamish Coates and Paula Kelly;
- Project Researchers: Paula Kelly, Emmaline Bexley, Mollie Dollinger, Kenneth Moore and Gwilym Croucher;
- Project Experts: Marie Carroll, Kate Wright, Helen Klaebe, Nick Mansfield, Helene Marsh, Alastair McEwan, Chris Pakes, Laura Poole-Warren, Stephan Riek, Zlatko Skrbis and Dick Strugnell.

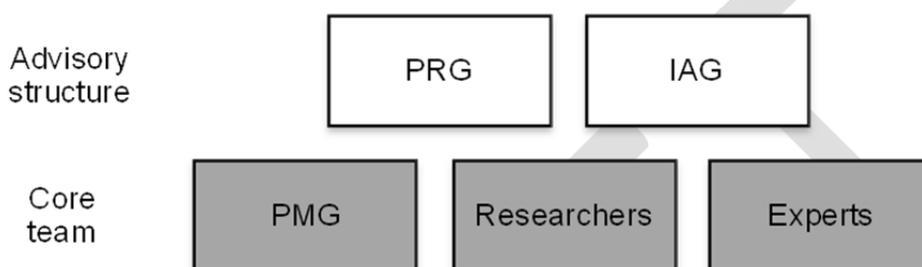


Figure 1: Project advisory structure

7.1 *Project Reference Group (PRG)*

The PRG will be formed following consultation with OLT. It will include eminent people who have made substantial contributions to researcher development in Australia and see the need for ongoing improvement. The group will be established at the start of the project will be consulted frequently. Potential roles include a: retired Vice Chancellor; senior member of the Australian research community; ASX top-50 CEO; research council CEO; and CAPA representative.

7.2 *International Advisory Group (IAG)*

The International Advisory Group (IAG) will play an essential role in helping position this national project in ways that maximise engagement and impact for Australia. We will form the IAG by drawing on close existing relationships with eminent international colleagues and networks. For instance, Professor Coates has played a leading international role in a multi-country study of the academic profession (Coates et al., 2010), is establishing a researcher development network across Asia-Pacific (LHMI & CSHE, 2014), and has formative links with contemporary European research (Parada & Peacock, 2014). We have procured interest in collaboration from people such as: Dr Debra Stewart (United States Council of Graduate Schools), Professor Futao Huang (Research Institute of Higher Education, Hiroshima University), Professor Shi Jinghuan (Executive Dean, Institute of Education, Tsinghua University), Dr Julia Kent (United States Council of Graduate Schools, United States), Professor Molly Lee (Former Senior Programme Specialist in Higher Education UNESCO), Professor Simon Marginson (Institute of Education, United Kingdom), Professor Seeram Ramakrishna (National University of Singapore), Dato' Professor Dr Morshidi Sirat (Founding Director, Commonwealth Tertiary Education Facility, National Higher Education Research Institute, Universiti Sains Malaysia), Professor Ulrich Teichler (Kassel University),

Professor Dr Frans van Vught (University of Twente, Netherlands) and Professor Sir David Watson (Oxford University).

8. Project communication

A number of strategies have been, and will be, established to facilitate efficient and effective communication within the team for this project and with broader stakeholders for engagement and dissemination of project findings.

8.1 Project team meeting

Two face-to-face project meetings have been scheduled over the period of the project. The majority of communication between project partners will take place via email and telephone. It is likely that more meetings will be organised towards the end of the project but this will be conducted via online web conferencing.

8.2 Email addresses

Three dedicated email addresses have been established:

- A project team group email: olt-phd@lists.unimelb.edu.au . All communications to project team members will be sent through this email.
- A MCSHE group email: mcshe-oltphd@lists.unimelb.edu.au for project researchers based at the University of Melbourne.
- An enquiries email via the project website: To be advised. All external inquiries regarding the project will be sent through this email which will be made available on the website. The Project Management Group (PMG) will have access to this email.

8.3 Online document sharing

1. Two dedicated folders will be established within the University of Melbourne's server:
 - A public folder: S:\CSHE\public\OLT PhD to facilitate document sharing in this project.
 - A secure folder: S:\CSHE\restricted\OLT PhD for confidential personal information accessible only to project researchers.
2. A Dropbox account has been created to facilitate document sharing. An invitation to join will be sent to team members.
3. An online Mendeley library has been established. An invitation to join will be sent to team members.

8.4 Website

An interim project website has been established. Please see link http://cshe.unimelb.edu.au/research/nature_ed/future_doctorate.html. The structure and contents of the website will be developed as the project progresses. The website will allow the dissemination of materials to participants and the sharing of outcomes and resources with stakeholders.

8.5 Brand/Logo

A logo will be developed for use in all project materials. This will be incorporated into website and other promotional materials which can be used by team members at conferences and other events to inform stakeholders about the project and recruit survey participants.

8.6 Project reporting

Various forms of reporting will be used throughout the project:

- the Project Director and team will report to OLT formally/informally as requested, verbally and in writing, and Progress Reports will be delivered to OLT after 6, 12, 18 and 24 months;
- a suite of interim reports will be released on a staged basis;
- a National Symposium as well as a series of National Engagement Workshops will be convened along with relatively informal reports via interviews and consultations;
- project team meetings will be scheduled regularly and detailed minutes taken; and
- the Financial Acquittal will be provided to OLT as required.

9. Evaluation team

The project team will engage an independent external evaluator. After consultation with OLT the team proposes to approach Professor Emeritus Mark Tennant, Dr Margaret Kiley, Professor Terry Evan, Emeritus Professor Barbara Evans, Professor Belinda Probert, Professor Jim Piper or Professor Elizabeth Deane.

10. Project impact plan

The primary impact sought is to impel sustained discussion and adoption by universities of productive and quality design options for the professional and research doctorate. The project will yield several subsidiary impacts, including:

1. research insights that inform national policies and institutional strategies;
2. findings on the concomitants of a successful doctorate in Australia;
3. enhanced national awareness of the current status of professional and research doctorates across the sector, and the need for renewal; and
4. input into other national and institutional reviews.

As part of background design and consultation feeding into this proposal a preliminary plan for achieving project impact has been prepared (Appendix C), drawing on the OLT's IMPEL model. Planned changes are noted in a sample of cells, and the model will be updated at key milestones as the project proceeds.

11. Stakeholder engagement plan

Engagement is a vital element in the success and sustainability of this project. Ongoing consultation is woven into this project as part of our broader aim of engendering evidence-based change and forging ongoing partnerships. A Stakeholder Engagement Plan has been developed (see Appendix D) with a number of engagement strategies designed to involve institutions and the broader community as widely as possible.

12. Dissemination/publication plan

From the Engagement Plan, a list of probable dissemination strategies has been identified. These include:

13.1 Academic journal articles

The project team will publish a number of academic papers, which adhere to the following publishing protocols:

- Each project team member is invited to lead one or more papers.
- Each project team member will identify the timing and area of focus for their publication.
- All project team members will be invited to be co-authors, contributing as agreed and in line with the Australian Code for the Responsible Conduct of Research. There is no obligation to contribute to every paper.
- The order of authors will be determined as per the usual protocol for research in the social sciences and as agreed by project team members.

13.2 Media articles

In Australia, the project team will aim to publish articles in the following media outlets as appropriate:

- The Conversation
- Campus Review
- The Australian Higher Education Section
- The Financial Review Education Section

Internationally, the project team will aim to publish articles in a range of suitable media including:

- Times Higher Education
- A publication in Europe

- An OECD publication
- A publication in the USA / Canada
- A publication in South/East/South-East Asia

13.3 Conferences

The project team will aim to present the project outcomes at relevant conferences. To facilitate this:

- Budget has been allocated for two team members to attend two conferences. Team members may nominate themselves and the conference for which they would attend.
- The relevant project team members will submit a paper proposal to their selected conference, with co-authorship as agreed and support from the wider team.
- The team will also present at OLT conferences/symposia, where applicable.

13.4 National Symposium

We will lead a national discussion with all doctoral-granting institutions and key stakeholders. This will enable us to explore and test the team's ideas, and further identify links between current programs and proposed new options.

13.5 National Engagement Workshops

The purpose of these workshops is to bring together all insights from the project, to disseminate and discuss the findings, and to agree on priorities for further action and work. This would involve engagement with multiple stakeholders from a broad range of institutions across Australia. The final Project Report will be revised in light of the feedback before delivery.

13.6 Website

The project team will develop a dedicated website on student experience with relevant resources for different stakeholders. An interim website has been established (http://cshe.unimelb.edu.au/research/nature_ed/future_doctorate.html) with the structure and contents to be developed as the project progresses.

13.7 Policy briefing(s)

Based on outcomes from the project, the project team will endeavour to hold a policy briefing for the Department of Education on valid and reliable data and methodology on options for the Australian doctorate to inform policy making.

13.8 Reports

Depending on the results of each phase of the project, a suite of reports will be delivered throughout the project, which may include the: Environmental Analysis Report, Doctoral Design Options Report, the final Project Report, and Progress Reports.

Appendix E provides a publication plan, which will be updated regularly as the project progresses.

13. Risk management

A Risk Management Register has been prepared (see Appendix F). This will be updated regularly as the project progresses.

14. Project timeline

The project timeline is available in Appendix G.

DRAFT

Appendix A: Phases of Project

Phase	Activity	Success criteria	Resources	Milestones
Phase 1: Project initiation	Detailed project planning	- Agreement of project partners to various aspects of the project	- OLT proposal - OLT application information and instructions	Feb 2016 – Apr 2016
Phase 2: Background research	Research review and development of conceptual models	- Identification of knowledge/data gaps - Analysis of existing data	- Academic literature - Policy papers - Existing data sets	Mar 2016 – Sept 2016
Phase 3: Environmental analyses	Expert consultations	- Identification of international and national experts and stakeholders	- Researchers to conduct consultation	Mar 2016 – Nov 2016
	Survey of doctoral graduates	- Agreement of key stakeholders to appoint students for surveys - Collection of data on graduates' experiences and outcomes	- survey instrument - Researchers to conduct fieldwork	May 2016 – Jan 2017
	Data analysis	- Identification of existing national and international data, including financials.	- Statistics and financial related to research training and funding - Researchers to conduct analysis	May 2016 – Jan 2017
	Mapping of doctoral outcomes	- Identification of relevant doctoral outcomes	- Results from environmental analyses	May 2016 – Jan 2017
Phase 4: Validating design options	Taxonomy of doctoral program design options	- Identification of design options	- Results from phase 2 and 3	Feb 2017 – Mar 2017
	National Symposium/Expert consultations	- National Symposium successfully implemented	- Project manager and researchers to organise symposium and consultations	Feb 2017 – May 2017
	Case studies	- Development of case studies	- Results from phase 2 and 3 - Feedback from expert consultations	Apr 2017 – Jul 2017

Phase	Activity	Success criteria	Resources	Milestones
Phase 5: Reporting and dissemination	Succinct Project Report	- Report developed	- Results from phases 2, 3, and 4.	Mar 2016 – Dec 2017
	National Engagement Workshops	- National Engagement Workshops successfully implemented	- Project manager and researchers to organise workshops	Aug 2017 – Dec 2017

DRAFT

Appendix B: List of 2015 OLT doctorate-related projects

Title: Design and architecture practice research: contemporary PhD (DAP_r)

Lead institution: RMIT University

Partner institutions: Bond University, Charles Sturt University, Deakin University, Monash University, Queensland University of Technology, The University of Adelaide, The University of New South Wales, The University of Newcastle, The University of Western Australia, University of Canberra, University of South Australia, University of Tasmania, University of Technology Sydney

Project Leader: Professor Richard Blythe

Abstract: DAP_r (Design and Architecture Practice research) provides a model that fills an internationally identified gap in postgraduate training. It is specifically aligned with the core teaching and learning components of design and architecture programs in Australia. Further, it provides a radically new way of connecting the academy with SME practitioners, locating the site of new knowledge discovery within SME studios, producing results with immediate industry impact and linking them with studio teaching. This new doctoral model involves the production of new works during the period of the PhD which are, in most cases, included in the final PhD material, and the placement of the work of the practice in a broader disciplinary context. Candidates examine and document the methods and techniques of practice as they relate to the existing and ongoing body of work. Thus, the work examines, and is also transformative of, the practice within which it is situated.

Funding: \$497 000

Title: Exploring the impact and national implementation of iPREP: a post-submission industry program for PhD candidates

Lead institution: Edith Cowan University

Partner institutions: Curtin University, Murdoch University, The University of Notre Dame Australia, The University of Western Australia

Project Leader: Dr Natasha Ayers

Abstract: iPREP is an industry engagement program helping PhD candidates engage and network with industry. The program has been trialled at the institute and state level, with positive outcomes for the PhD candidates, industry partners and the 5 collaborating Western Australian universities. The project will formally evaluate the long-term benefits of the program for career development of PhD graduates and also for supporting additional collaboration between universities and businesses. The project will develop a national implementation package to enable other universities to easily adopt the successful iPREP model. The outcomes from this seed grant will support future initiatives to embed industry engagement in the contemporary Australian PhD.

Funding: \$40 000

Title: Reframing the PhD for Australia's future universities

Lead institution: The University of Sydney

Partner institutions: Deakin University, La Trobe University, The University of Western Australia, The University of Auckland (NZ)

Project Leader: Associate Professor Simon Barrie

Abstract: The project will deliver practical strategies and resources that re-frame and integrate (i) the PhD research project, (ii) its supervision, (iii) the disciplinary community the PhD occurs in, and (iv) universities' doctoral research skills and teaching development strategies, to better prepare graduates for employment in both academia and industry. The project addresses the role of the PhD in preparing the future academic workforce, especially in relation to higher education teaching. While it pays particular attention to the preparation of doctoral students for careers in academia, it does so in a way that will also better prepare them for careers in industry and elsewhere. As a result of collaborations with international researchers, the project brings a much-needed academic tenor to the national conversations about the PhD. Through the nation's Academic Boards, it will engage academic communities in shaping a different way of thinking about the research 'heart' of the PhD borrowing from, and extending, the Carnegie Foundation's idea of 'stewardship'.

Funding: \$349 000

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Appendix C: Project Impact Plan

	Anticipated changes at:		
	Project completion	6 months post-completion	12 months post-completion
(1) Team members	Team members' expertise and leadership in the project area will be fully developed and used to facilitate dissemination to stakeholders.	Over the year following completion of the project, team members will contribute to the national conversation around doctoral training through interactions with institutions and government, relevant media work and the preparation of articles for scholarly journals.	
(2) Immediate candidates	The dissemination of project outcomes will provide an immediate opportunity for current doctoral candidates to benchmark their own experiences against national and international norms, and to engage in an informed manner with their supervisors and their institution.		
(3) Spreading the word	The project outcomes are expected to create considerable interest across the sector after release. The project will engage stakeholders across all institutions during the research period, so anticipation will be building prior to release. This will be a time for broad level conversations via relevant media.	Post-completion it is expected that many universities will seek further advice about how the outcomes can contribute to the development of their own doctoral programs. At this point it is also likely that government will take an interest in project outcomes in relation to national research and innovation policy.	Saturation of information flows to relevant stakeholders should have been reached by this point.
(4) Narrow opportunistic adoption	The project outcomes will provide readily accessible resources for individual departments and program coordinators seeking to improve program performance at the local level. This kind of adoption will be ongoing.		
(5) Narrow systemic adoption		Should the project outcomes be as timely and innovative as expected, it is likely the design options will be picked up at the discipline level, and we will work closely with professional associations and the learned academies to ensure this is the case.	
(6) Broad opportunistic adoption			Whether the final stages of adoption remain opportunistic (that is, undertaken according to disciplinary, institutional or program level need) or are incorporated into national policies will be up to institutions, who will need to take ownership of the outcomes the project will facilitate. It is not the intention of the project team to recommend proposals stemming from the project become systemic – rather, the quality of outcomes should speak for themselves.
(7) Broad systemic adoption			

Appendix D: Stakeholder Engagement Plan

Stakeholder	Specific Interests/ Needs	Requirements	Frequency	Medium
Early year doctoral students	- Identification of student expectations of the doctoral experience.	- Support from teaching staff - User-friendly resources	Open access	Website Media
Later year doctoral students	- Identification of the student experience and how this contributes to the doctoral experience.	- Support from teaching staff - User-friendly resources	Open access	Website Media
Doctoral graduates	- Recognition of multiple and complex graduate outcomes	- User-friendly resources	Open access	Website Media
Broader community	- Identification of institutional capability to develop the required doctoral experience and workforce capability	- User-friendly resources	Open access	Website Media
Tertiary institution supervisory staff	- User-friendly / tried and tested interventions to help students gain valuable doctoral experience - User-friendly / tried and tested interventions to help staff gain valuable supervision experience	- Easy to use resources - Evidence of success	Open access	Website Conferences Reports Media
Tertiary institution research training leaders	- User-friendly / tried and tested interventions to support research training.	- Easy to use resources - Evidence of success	Open access	Website Conferences
Tertiary institution planners and administrators	- Valid and reliable data and methodology to assist institutional management in making evidence based decisions on research training.	- Easy to use resources - Evidence of success	Open access	Websites Conferences Reports Media
Tertiary institution leaders	- Evidence based advice on enhancing research training	- Policy brief on interventions - Evidence of success	Open access	Website Conferences Reports Media
Government	- Valid data on the doctoral options and outcomes to inform policy making	- Policy brief on data	As required	Meeting Policy briefing(s) Reports Media
Employers	- Graduates with appropriate skills	- Evidence of success	Open access	Website Conferences Media
Researchers	- Data on successful interventions to enhance the doctorate experience	- Communication of findings	Open access	Website Conferences Journal Papers Reports Media

Appendix E: Publication Plan

No.	Lead author(s)	Proposal due (if applicable)	Type	Title	Full paper /presentation due	Presentation (if applicable)
1	Hamish Coates	Feb 2016	European Association for Institutional Research (EAIR) Conference	Design options for the future Australian doctorate	July 2016	August 2016
2	Paula Kelly		OLT conference poster	Design options for the future doctorate		

Appendix F: Risk Management Register

Identification		Assessment and Analysis			Management		Monitoring
#	Risk event	Likelihood	Consequence	Priority	Response Strategies	Accountability	Review
1	Project team members do not allocate sufficient time to project	Medium	High	High	Identification of contributions in project plan	HC/PK	

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Appendix G: Project Timeline

Phase	Activity	2016/17											
		1 Feb-16	2 Mar-16	3 Apr-16	4 May-16	5 Jun-16	6 Jul-16	7 Aug-16	8 Sep-16	9 Oct-16	10 Nov-16	11 Dec-16	12 Jan-17
Project initiation	Setup agreements and management												
	Form Project Reference Group (PRG)												
	Launch meetings												
	Detailed project plan												
	Obtain ethics approvals												
Background research	PRG meeting, Progress report												
	Research review												
Environmental analyses	Development of conceptual models												
	Desktop analysis and expert consultation												
	Review of statistics and graduate survey												
	Analysis of demand												
	Map doctoral learning outcomes												
Validating designing options	Environmental Analysis Report												
	PRG meeting, Progress Report												
	Draft taxonomy of design options												
	Feedback from experts and stakeholders												
	National Symposium												
Reporting and dissemination	Development of case studies												
	Doctoral Design Options Report												
	PRG meeting, Progress Report												
	Succinct Project Report												
	National Engagement Workshops												
Reporting and dissemination	Project Website												
	PRG Meeting, Progress Report, Financial Acquitall												

Phase	Activity	2017/18											
		13 Feb-17	14 Mar-17	15 Apr-17	16 May-17	17 Jun-17	18 Jul-17	19 Aug-17	20 Sep-17	21 Oct-17	22 Nov-17	23 Dec-17	24 Jan-18
Project initiation	Setup agreements and management												
	Form Project Reference Group (PRG)												
	Launch meetings												
	Detailed project plan												
	Obtain ethics approvals												
Background research	PRG meeting, Progress report												
	Research review												
Environmental analyses	Development of conceptual models												
	Desktop analysis and expert consultation												
	Review of statistics and graduate survey												
	Analysis of demand												
	Map doctoral learning outcomes												
Validating designing options	Environmental Analysis Report												
	PRG meeting, Progress Report												
	Draft taxonomy of design options												
	Feedback from experts and stakeholders												
	National Symposium												
Reporting and dissemination	Development of case studies												
	Doctoral Design Options Report												
	PRG meeting, Progress Report												
	Succinct Project Report												
	National Engagement Workshops												
Reporting and dissemination	Project Website												
	PRG Meeting, Progress Report, Financial Acquitall												