Research Training Implementation Plan

Progress Report

March 2019

Contents

Introduction

This report is an update on progress in implementing the [Research Training Implementation Plan](). The Plan, released on 22 December 2017 by Senator the Hon Simon Birmingham, the then Minister for Education and Training, responds to the *Review of Australia's Research Training System* (2016) prepared by the Australian Council of Learned Academies (ACOLA).

The Plan was developed by the Research Training Implementation Working Group, which comprised representatives from the higher education, industry and government sectors, including Indigenous and higher degree by research (HDR) student representatives.

The working group developed eighteen actions to address the Review's findings under five Priority Issues:

1. Pathways to HDR training

2. Industry-university collaboration, including placements

3. Equity, including Indigenous participation

4. Quality of the HDR training system

5. Data and evidence to better monitor HDR system performance.

The Plan identifies lead organisations for each action, including the Department of Education and Training (DET), the Australian Council of Graduate Research (ACGR), Universities Australia (UA), and the Australian Industry Group (Ai Group). Drawing on updates from the lead organisations, the department will publish six-monthly progress reports until the actions are fully implemented.

The first report documented the progress the organisations made from December 2017, when the Plan was released, to July 2018. This second report provides a further update for items in progress to March 2019. At the time of the first report, three of the 18 actions were complete (2.2, 4.3, 4.4). With this report, a further six actions are complete or require no further action (1.2, 2.1, 3.3, 4.1, 4.2, 5.3).

For each action, the report outlines the progress made by the lead organisations and their next steps. Where relevant, links to related documents are provided.

The department is grateful to the lead organisations for their contributions and assistance in preparing this report. We would also like to thank all those working to implement the actions.

Priority Issue 1: Pathways to HDR training

Action 1.1 Monitor new pathways to HDR training, undertake modelling and review the use of RTP funding

DET to monitor and model the impact of new Higher Degree by Research (HDR) pathways programs on the research training system, including the balance between PhD and Masters by Research places. This will include reporting on enrolments in specific HDR pathways programs, HDR completion numbers and HDR completion timeframes based on the pathways taken by students. Based on the outcomes of monitoring and modelling, DET to review the use of Research Training Program (RTP) funding in supporting HDR pathways.

Responsibility: DET – by December 2018

Status

In progress

Progress to date

The department is currently analysing HDR enrolments and finances, drawing on recent trends in HDR pathways and using data from the Higher Education Data Collection (HEDC) and other sources. Publication of the first HDR pathways report has been delayed by six months in order to deliver a more comprehensive analysis of the data.

Next steps

The department will publish the first iteration of the HDR pathways report by the middle of 2019, with updates to follow as additional data becomes available. The report will include the following information:

- descriptive analysis of enrolment and completion numbers of new HDR training pathways compared to traditional pathways
- modelling of the impact the RTP funding model is having on new HDR training pathways and Masters by Research places
- analysis on HDR completion timeframes (to be provided in the second half of 2019 once the department receives data from new HEDC thesis submission and HDR completion timeframe data items).

Separately, the department will be conducting an evaluation of the new Research Block Grant (RBG) arrangements prior to the transitional arrangements concluding at the end of 2020. The impacts on RTP funding of new HDR pathways will also be considered in this context.

Action 1.2 Consult on the new CGS postgraduate scholarship arrangements

As announced as part of the Commonwealth higher education reform, DET will consult universities, students and other stakeholders on the proposed changes to the postgraduate scholarships system later in the year.

Responsibility: DET – subject to the passage of legislation

Status
No further action

Progress to date
Legislation to implement the Commonwealth Grant Scheme (CGS) postgraduate scholarship arrangements did not pass the Senate and this measure is no longer Government policy.

In the 2017–18 Mid-Year Economic and Fiscal Outlook, the Government announced that it would proceed with reforms, including a new allocation mechanism based on institutional outcomes and industry needs for enabling, sub-bachelor and postgraduate Commonwealth Supported Places (CSPs). On 12 November 2018, the department released a Consultation Paper on the allocation mechanism with responses due by 15 February 2019. The department is currently considering the responses to the consultation.

Next steps
Due to a change of policy, this item is no longer under consideration.

Priority Issue 2: Industry-university collaboration

Action 2.1 Principles to guide industry-university collaboration in HDR training

The Australian Council of Graduate Research (ACGR) and the Australian Industry Group (Ai Group) to work together to develop and disseminate complementary principles that build on the range of available models of industry engagement in HDR training, including:

- principles for university collaboration with industry in HDR training (for use by universities)
- principles for industry collaboration with universities in HDR training (for use by industry partners).

The principles should promote the short- and long-term benefits of engagement, including the benefits HDR candidates can offer industry, and address issues such as the establishment of clear expectations and protections for all parties, including in relation to IP arrangements.

Responsibility: ACGR and Ai Group, in consultation with universities and industry sector stakeholders – by July 2018

Status

Complete

Progress to date

The set of overall Principles to Guide Industry-University Collaboration in Graduate Research Training has been finalised and published. They are available at
https://www.acgr.edu.au/good-practice/best-practice/

A complementary set of industry and university-facing guides to assist with the implementation of university/industry engagement has also been developed and published. They have been circulated to all ACGR members, and are available through the ACGR and Ai Group websites at
https://www.acgr.edu.au/about/key-initiatives/industry-engagement/
https://www.aigroup.com.au/workforce-development/policyandprojects/graduate-research-students-in-your-business/

Next steps

This action is now complete.

Action 2.2 Promote availability of HDR industry internships and other collaboration

ACGR and Ai Group to encourage their members to promote internships and other collaboration opportunities to students, including by publishing information on their websites.

Responsibility: ACGR and Ai Group – by March 2018

Status

Complete

Progress to date

ACGR has undertaken the following actions:

- Discussions on international models of industry engaged PhDs were held at the ACGR International Forum in Vietnam in November 2017.
- A background paper outlining all types of industry engagement was circulated to all ACGR members for discussion at the ACGR National Meeting in April 2018.
- An Australian Postgraduate Research Intern (APRI) presentation was provided by the Australian Mathematical Sciences Institute (AMSI) to all ACGR members at the same meeting.
- Internship and other collaboration opportunities were promoted through the monthly ACGR Update.
- ACGR has established and annually makes a national award for Excellence in Promoting Industry Engagement in Graduate Research.

Ai Group has undertaken the following actions:

- Ai Group promotes the uptake of postgraduate research internships and other collaboration activities through its Innovation Facilitators' activities under the Entrepreneurs' Programme.
- Ai Group promoted AMSI's APR.Intern program through its weekly newsletter to member companies in May 2018.
- Collaboration activities between industry and universities are developed and promoted by Ai Group through its involvement with Industry Growth Centres (IGCs) and Cooperative Research Centres (CRCs).
- Ai Group's Business Beyond Broadband report to companies in 2017 promoted the need for closer collaboration on research between industry and universities, including through student work-integrated learning opportunities.

Next steps

This action is now complete. ACGR and Ai Group will continue to promote and support all types of industry collaboration in graduate research, both through communication of programs and opportunities as they become available and by exploring new and innovative models as they arise.

Action 2.3 Monitor implementation of the National Research Internships Program (NRIP)

DET to monitor and report to the sector on implementation of the NRIP, including in:
- supporting collaboration
- achieving targets for women and Indigenous student participation
- supporting STEM research.

To support this process, AMSI to report annually on system level issues, in addition to providing regular project reports to DET.

Responsibility: DET, in consultation with AMSI – ongoing, with first report by July 2018

Status

In progress

Progress to date

On 27 May 2017, the department finalised the grant for "Supporting more Women into STEM careers: Australian Mathematical Sciences Institute (AMSI) National Research Internships Program" for AMSI to deliver 1400 new PhD research based internships over four years, with a particular focus on women in STEM.

Over 2017 and 2018, NRIP achieved 161 internships against a key performance target of 300 internships. In 2018, over 40 per cent of STEM students were women, meeting the 2018 KPI. This KPI will increase for 2019 and 2020.

In May 2018, the department and AMSI expanded the NRIP eligibility criteria to allow part-time PhD students to participate, as over 30 per cent of higher degree by research students are part-time.

Over 2017 and 2018, AMSI has worked with 83 industry partners and increased participation in the program to 27 universities, with almost all (94 per cent) of internships in STEM fields.

The department and AMSI have been working collaboratively to adjust the program delivery model to increase NRIP performance against its goals.

Next steps
- The department and University of Melbourne (UoM) to revise the funding agreement to reflect adjustments to AMSI's delivery model.
- The department to continue to engage closely with UoM and AMSI to discuss opportunities for improved program delivery.
- The department to continue to monitor program progress through monthly data collection and progress meetings.
- AMSI to continue to work with universities, peak bodies and other stakeholders.
- AMSI to commence a new collaborative internship initiative with universities.
- AMSI to commence a new, student-focused marketing campaign.

Action 2.4 Establish baseline data and monitor internships and other collaboration

DET to build on existing data collections and processes to establish baseline data on HDR internships and other collaboration.

This would include ongoing monitoring and reporting on the implementation of new RBG arrangements and their impact on supporting greater collaboration.

Responsibility: DET – ongoing (6 monthly), with first report by July 2018

Status

In progress

Progress to date

From 1 January 2018, the department introduced a new indicator in the HEDC to collect data on the amount of engagement occurring between HDR students and research end-users. Data of this nature was not previously collected by the department. Data on five types of engagement is being collected:

- research internship with a research end-user
- joint supervision by a research end-user
- jointly funded or fully funded by a research end-user
- formal training on industry engagement
- other commercialisation and engagement activities.

Since the data collection only commenced in January 2018, and the HEDC operates to an annual cycle, the given due date and frequency of reporting are in error. The department will publish full-year 2018 data for the first two engagement types from higher education providers in mid-2019, with full-year 2019 data for the remaining three engagement types available for publication in mid-2020.

Next steps

The department will publish an annual table of HDR engagement data by higher education provider, with 2018 full-year data published in 2019 to be considered as "baseline data".

Action 2.5 Collaborative IP templates

DET and the Department of Industry, Innovation and Science (DIIS) to develop and make available templates to inform the development of IP arrangements involving HDR students in collaborative research activities, drawing from existing IP models such as the *IP Toolkit* and the AMSI internship program agreement template. The templates should address issues including:

- establishing trust and pursuing mutual benefit to support more formal commercial boundaries
- identifying and addressing key issues and challenges at the beginning of the relationship
- confidentiality arrangements in the examination of a thesis
- arrangements to allow for the publication of students' research outputs
- agreeing on the commercial potential of the product and likely revenue after all costs have been taken into account.

The templates should be developed in consultation with industry and university stakeholders and informed by the industry-university collaboration principles developed by ACGR and Ai Group under Action 2.1, to ensure they are practical and will be adopted.

Responsibility: DET and DIIS – by mid-2019

Status
In progress

Progress to date
The department and the Department of Industry, Innovation and Science (DIIS) have examined a range of existing IP templates and guidance currently used in university-industry research collaboration initiatives. To avoid duplication of existing work, the department and DIIS have agreed to develop and publish a set of high-level IP collaboration guidelines that will refer to the *IP Toolkit* and other existing resources. The department and DIIS have also held discussions with IP Australia regarding the inclusion of content directly relevant to HDR students in the *IP Toolkit*.

Next steps
The department, in consultation with DIIS and IP Australia, will develop a set of draft guidelines for collaborative research activities involving HDR students.

The department and DIIS will work with IP Australia to develop content specific to HDR students. This is expected to include a case study on HDR students collaborating with industry, revising the *IP Toolkit* checklist, and making detailed content on HDR internship IP issues more prominent on the *IP Toolkit* website.

The guidelines and additional *IP Toolkit* content will take into account the industry-university collaboration principles developed under Action 2.1. Once developed, the departments will test draft materials through targeted consultation with key industry and university stakeholders.

Priority issue 3: Equity, including Indigenous participation

Action 3.1 Better data collection, and monitoring and analysis

DET to:
- explore improvements to data reporting to support a better understanding of Indigenous student participation in the HDR system, including the pathways taken to HDR, access to scholarships and completion rates.
- monitor and undertake further analysis of the issues surrounding participation rates of other equity groups, particularly of low SES backgrounds and from Regional/Remote areas.
- explore the development of a four-digit Australian and New Zealand Standard Research Classification (ANZSRC) Field of Research (FoR) code for Indigenous research, including lower cost options that do not require a broader review of all FoR codes (noting that the term Indigenous research here applies to Indigenous subject matter, not to research done by Indigenous students).

Responsibility: DET to explore with relevant government agencies and sector stakeholders – by end 2018

Status
In progress

Progress to date
The department has prepared an equity report presenting selected statistics and analysis of HDR participation by gender, regional/remote status and SES. A separate report on Indigenous HDR participation is in preparation, which will include the results of the survey of stipends (see Action 3.4). Statistics on Indigenous pathways and completion rates will be published in the wider review of that data under Actions 1.1 and 5.1.

On 28 June 2018, the Australian Research Council (ARC) and the Australian Bureau of Statistics (ABS) announced a review of the ANZSRC commencing in 2018–19. The ANZSRC currently includes 15 specific FoRs related to Aboriginal and Torres Strait Islander Studies (ATSIS), and recognises alternative organisations of the classifications for ATSIS, Maori Studies and Pacific Peoples Studies. The review will provide an opportunity to consider the place of ATSIS in the ANZSRC.

Next steps
The department will release the equity report shortly after the release of this update. This will be followed by release of the report on Indigenous participation, together with the report on the Indigenous HDR forum (Action 3.3).

Public consultation for the review of the ANZSRC is now open and submissions close on 7 June 2019. Further information can be found at https://www.arc.gov.au/anzsrc-review

Action 3.2 University Indigenous strategies and promotion of best practice

As part of their existing work to implement UA's Indigenous Strategy, UA and ACGR to work collaboratively with Indigenous stakeholders to support implementation of strategies by universities and disseminate information on best practice models, drawing on the experience of institutions that are achieving the best outcomes, including in the following areas:

- better information for Indigenous students on pathways to HDR and strategies to engage and recruit Indigenous HDR candidates, including networking and sharing of resources where universities have very low numbers of Indigenous students
- training for supervisors on how to support Indigenous students including promoting a better understanding of Indigenous research methodologies
- supporting the role of Indigenous academic staff and professors in implementation of university strategies, including the appointment of Indigenous research-only professors.

Responsibility: UA and ACGR, in consultation with the National Aboriginal and Torres Strait Islander Higher Education Consortium (NATSIHEC) and the National Indigenous Research and Knowledges Network (NIRAKN) – by mid-2018

Status

In progress

Progress to date

ACGR has worked closely with NIRAKN and NATSIHEC to review and finalise its Good Practice Guidelines for Aboriginal and Torres Strait Islander Research Education. These were approved by the membership at the ACGR national meeting in November 2018, and published on the ACGR website in December.

UA is progressing a project to establish a portal for sharing of good practice. In the short-term, the UA website is likely to be location for such material. ACGR continues to compile a collection of good practice examples to populate this resource.

Deputy Vice-Chancellors (Research) and ACGR will continue to work at executive and full membership levels to share and promote indigenous HDR strategies amongst its members. UA is continuing to work collaboratively with NATSIHEC and two joint UA Board/NATSIHEC meetings have been held to discuss progress and strategies to improve Indigenous higher education outcomes. NATSIHEC nominated the two Indigenous members who sit on each of the four UA Deputy Vice-Chancellor Committees, including the Deputy Vice-Chancellors (Research) Committee.

Next steps

ACGR will convene another session on Aboriginal and Torres Strait Islander Graduate Research Training at its forthcoming meeting in May 2019 to maintain the momentum of developing and promoting good practice.

UA is continuing to facilitate the regular sharing of information and case studies, including through its public reports of progress against the UA Indigenous Strategy 2017-2020.

Action 3.3 Indigenous PhD forum

DET and UA to explore establishing an Indigenous PhD forum to focus on enablers and barriers to Indigenous HDR participation and outcomes for Indigenous HDR graduates, in consultation with NATSIHEC, NIRAKIN and Indigenous HDR students.

Responsbility – DET and UA, in consultation with NATSIHEC, NIRAKN and Indigenous HDR students – by July 2018

Status

Complete

Progress to date

In February 2018, the department and UA held preliminary discussions to establish an approach to developing an Indigenous PhD forum.

In May 2018, the department convened a meeting with UA, NATSIHEC and NIRAKN to develop a concept for the forum. After further discussions, the parties agreed in September that the forum would be held in conjunction with a series of capacity building workshops hosted by NIRAKN. The department agreed to provide financial support for the event and for a report based on the observations.

The forum, administered by Queensland University of Technology's Indigenous Research and Engagement Unit (IREU), was held on 2 November 2018.

Next steps

This action is now complete. The department will release IREU's report on the forum together with a separate report on Indigenous HDR participation (see Action 3.1).

Action 3.4 Monitoring and reporting on scholarship support

DET to monitor changes in scholarship support and encourage improvements in access for Indigenous students and other equity groups:

- universities will be asked to report on levels of stipend support for Indigenous students
- DET will monitor and analyse access to part-time scholarships for equity groups and related developments with the ATO Review of Advice on Scholarships
- DET will publish the outcomes on an annual basis.

Responsibility: DET and universities who choose to participate – by 2018 academic year

Status

In progress

Progress to date

In the second half of 2018, the department invited the 42 higher education providers (HEPs) eligible for research block grants to participate in a survey, comprising 15 questions, to determine levels of support for Indigenous HDR students. A total of 40 HEPs provided data in response.

The results of the survey will be presented in the Indigenous HDR report. Data on access to scholarships by other equity groups will be presented in the HDR equity report (see Action 3.1).

The outcomes of the Review of ATO Advice on Scholarships are still under consideration by the ATO.

Next steps

The equity reports under Action 3.1 are forthcoming.

The department will continue to liaise with the ATO regarding the tax treatment of scholarships.

Priority Issue 4: Quality of the HDR system

Action 4.1 Revised Student Experience Survey

Subject to available resources, DET to explore opportunities to expand the current review of the Postgraduate Research Experience Questionnaire to include the establishment and funding of a survey of current postgraduate research students to support comparison with similar surveys used overseas, such as the United Kingdom's Postgraduate Research Experience Survey for international benchmarking purposes.

Responsibility: DET – by July 2018

Status

Complete

Progress to date

The department has examined survey methodologies in Australia and overseas, and taken into account technical advice previously received from the Quality Indicators for Teaching and Learning (QILT) Working Group and the ACGR. Given the limited resources available, and the complexity of designing a sector-wide survey with sufficient diagnostic capability, the development of this survey is not a priority at the present time.

Next steps

This action is now complete.

Action 4.2 National guidelines on the development, assessment and recognition of transferable skills

ACGR to develop a set of guidelines that define principles and the rationale of skills development, assessment and recognition, which are not too prescriptive.

Responsibility: ACGR – by end 2018

Status

Complete

Progress to date

Following review and revision by the membership, the ACGR Good Practice Guidelines for Transferable Skills Development were approved and released in December 2018.
These guidelines describe good practice in developing research and transferable skills which will enhance employability for academic and non-academic careers for graduate research candidates.
The guidelines are available at http://www.acgr.edu.au/good-practice/best-practice/

This action is now complete.

Action 4.3 Refresh Good Practice Principles for Research Supervision

ACGR to refresh the Good Practice Principles for Research Supervision to include increased focus on the development of students' skills and attributes to reflect the aims of contemporary HDR training to equip students with employability skills and experience. (This action also relates to *'Section 3. Equity, including Indigenous participation'*).

Responsibility: ACGR – by March 2018

Status

Complete

Progress to date

A draft revision to the Supervision section of the Good Practice Principles was prepared for endorsement by the Executive Committee. It was then presented to the membership for approval at the National ACGR meeting in November 2018 and fully endorsed.

The Good Practice Principles for Graduate Research are available at
https://www.acgr.edu.au/good-practice/

Next steps

This action is now complete.

Action 4.4 Better address HDR supervision responsibilities in academic performance expectations

ACGR to develop guidelines to support universities to better manage and reward performance at the institutional level, including:
- formal inclusion of monitoring of research supervision performance in performance reviews
- the development of metrics to inform regular performance reviews and other processes such as academic promotion
- clear processes for de-registration of supervisors who consistently fail to meet performance expectations
- reviewing university career structures and academic promotion processes to appropriately recognise industry engagement as well as traditional scholarly outputs.
- reviewing supervision registration processes and levels to appropriately recognise industry engagement as well as traditional scholarly outputs by HDR candidates.

Responsibility: ACGR – by July 2018

Status

Complete

Progress to date

ACGR convened two forums on this action item. The first forum included a panel discussion at ACGR's international meeting in Vietnam in November 2017. This was followed by a working session at its national meeting in Adelaide in April 2018 to debate potential inclusions in the guidelines. ACGR drafted a set of Good Practice Guidelines on Supervisory Performance, which are to be read in association with the Graduate Research Good Practice Principle 5 on Graduate Research Supervision. The draft was circulated for feedback from all members and subsequently refined, and the final draft of the Guidelines was reviewed and endorsed by the Executive Committee in June 2018 and published on the ACGR website.

The Guidelines for Quality Graduate Research Supervision are available at https://www.acgr.edu.au/good-practice/best-practice/

Next steps

This action is now complete.

Priority Issue 5: Data and evidence to better monitor HDR system performance

Action 5.1 Prospective cohort studies

DET to develop a methodology to undertake cohort studies, subject to funding availability, drawing on consultation with relevant experts in the sector who have undertaken such studies.

Responsibility: DET, in consultation with relevant sector experts – by April 2019

Status

In progress

Progress to date

The department has an existing cohort analysis methodology used to undertake cohort analyses of domestic bachelor students. The cohort study methodology uses student data from the HEDC to provide an overview of student outcomes four, six and nine years after students commenced a course. More information on this cohort study and the methodology is available at https://www.education.gov.au/completion-rates-cohort-analyses.

The department is using this methodology to undertake a cohort study of domestic HDR students. Some minor modifications have been made to the methodology to ensure that HDR students can be appropriately tracked using student and Commonwealth identification numbers, and to target specific areas of HDR training performance.

The department's cohort study methodology is limited to existing data sets for enrolled and completed students. In order to minimise administrative burden on universities, in the first instance the department is undertaking the first HDR cohort analysis using existing data. Relevant HDR student data has been extracted from departmental systems and is currently being analysed.

Next steps

The first HDR cohort analysis will be completed by June 2019.

Action 5.2 Expanding CHESSN reporting

Subject to legislative and other implementation requirements, extend mandatory CHESSN reporting to international HDR students receiving support under the RTP, and encourage universities to also collect and report CHESSNs for all HDR students not supported through the RTP.

Responsibility: DET – by end 2018

Status

In progress

The department is working to introduce appropriate identifiers to monitor the progression of HDR students. There have been delays to the process to progress a major overhaul of how information is collected from tertiary education providers, postponing the plan to release a system to replace the *Higher Education Client Assistance Tool* (HEPCAT) on 1 January 2020. The proposal to introduce a mandatory Unique Student Identifier (USI) for all HDR students receiving government support, including international students, has also been delayed.

In early 2018, the department released a consultation paper, *Redevelopment and Audit of the Higher Education Data Collection.* This paper included details of the new system *Transformation of the Collection of Student Information* (TCSI), designed to replace HEPCAT, and included a proposal considering the introduction of a mandatory USI for all HDR students.

Next steps

There were only 600 international HDR students in 2017 who received RTP scholarships and did not have a CHESSN, out of over 40,000 RTP recipients. Due to these low numbers, there are no current plans to seek mandatory CHESSNs for international students receiving RTP support. Introduction of the USI will achieve the same outcome.

The department continues to seek to progress regulatory changes to require that unique identifiers be reported for overseas RTP students who receive government support. If this proposal is progressed, these changes will be implemented through the USI. Depending on the progress made with this process, the department may consider making validation changes to make a CHESSN mandatory for all HDR students receiving government support.

Action 5.3 Best practice guidelines on tracking HDR students

ACGR to develop guidelines on best practice for universities in tracking HDR students through the system and after they graduate to support better data collection and information on student outcomes by institutions.

Responsibility: ACGR – by end 2018

Status

Complete

Progress to date

Best practice guidelines were drafted and debated at the ACGR national meeting in Melbourne in November 2018. The ACGR Guidelines for Tracking Graduate Research Candidates were endorsed and published in December. They are available at https://www.acgr.edu.au/good-practice/best-practice/

Next steps

This action is now complete.