Quest for Student Success: An Exploration of the Academic Skill Needs of Higher Degree by Research Students at a Regional University

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Contents

Introduction

Background

Based on client perception and feedback about Scholarly Information and Learning Services' (SILS) purpose and effectiveness at the University of Southern Queensland (USQ), a review and realignment of SILS occurred in 2015-2016. As part of this realignment, the position of Learning Advisor Higher Degree by Research (HDR) was created to provide HDR students with dedicated and targeted learning support to better facilitate their needs. As this was a new position operating within a new structure there were no clear indications of HDR student need at USQ or how those needs might best be addressed.

Approach

In order to provide direction to the newly created role of Learning Advisor HDR this project examined the perceived generic academic skill needs of HDR students across discipline and cohorts at USQ.

The following research questions were used to carry out the study:

1. What are the perceived academic skill needs of HDR students across discipline and cohort?
2. How might HDR students' perceived academic skill needs best be met?

Data Collection

In order to answer these questions, the project used a multi-methods research approach based on the following instruments and processes:

Table 1 Overview of data collection instruments used to address research questions.

Data collection instrument	Relevant research question
• Environmental scan of current USQ initiatives and resources to meet the perceived academic skill needs of HDR students'. This included website scans and data gathering from HDR students and other stakeholders.	RQ1; RQ2
• Environmental scan of resources and initiatives to meet HDR students' academic skill needs at other institutions. This included website scans, and onsite data gathering from the Queensland University of Technology.	RQ1; RQ2

Findings

Internal Environmental Scan

The internal scan sought to investigate current practices and resources as well as perceived needs at USQ for the provision of generic HDR skills development. It included a website scan, and data gathering from HDR students, the Office of Research Graduate Studies (ORGS) and the Faculty Research Office.

Website scan

The USQ Website was scanned for HDR student skills development resources and initiatives. This information was collected and organised in an [excel spreadsheet](#) as follows:

- Site/resource
- Service provider (e.g. Learning Centre, faculty, particular program, ReDTRAIN)
- Overarching skills
- Link to resources/initiative
- Description of resource/initiative
- Mode of delivery (e.g. Web page, video, PDF, slideshare, blog)
- Academic skills addressed
- ReDTRAIN/Research skills addressed
- Target audience
- Clicks from home page
- Page views
- Unique page views
- Av. Time seconds
- Data Timeframe

The scan of the USQ website found the following:

- Although ORGS' ReDTRAIN has a number of resources and initiatives (e.g. supervisory relationships, scientific writing, thesis structure) this is not comprehensive and some content could be improved.
- Some of the initiatives offered through ORGS' ReDTRAIN are only available on campus (e.g. HDR Writing Bootcamp). This is not optimal given the substantial numbers of online/external HDR students.
- The current Student Learning and Development (SLD) website has minimal HDR specific resources.
- Many of the SLD online skill resources (e.g. academic writing, literature reviews, proof reading, time management, group work, presenting) even though they are relevant for HDR students are very undergraduate focused.

Student Feedback and Learning Advisor (HDR) Reflection

Student feedback and Learning Advisor (HDR) reflection after learning support consultations has indicated the following needs for improved HDR academic skill development:

- Easily accessible examples of confirmation of candidature proposals.
- Easily accessible examples of confirmation of candidature presentations.
- More flexible delivery and access to learning materials.
- Online learning materials provided in one place (a one-stop shop).
- A mix of on campus and online learning resources and workshops.
- Formal feedback (learning plans) provided to students as part of the consultation process.
- Structured instruction to address common HDR needs even in one-to-one consultations is necessary.
- Common areas students require support include supervisory relationships, time management, note taking, critical thinking, research design, the writing process, academic writing, structuring the confirmation proposal, structuring the thesis, presenting.

ORGS and Faculty Feedback

Meetings with the Director, Research and Research Training and the two Associate Deans, Research and Research Training indicated the following HDR student academic skill development needs:

- Further HDR skills support is needed for at-risk HDR students as part of USQ's performance management processes.
- HDR coursework should incorporate HDR skills development.
- HDR skills support needs to be provided to students at the HDR Writing Bootcamp.
- The HDR Library and Information Tutorial should incorporate relevant generic academic skills for HDR students.
- HDR students would benefit from the provision of written confirmation proposal examples.

External Environmental Scan

The external scan investigated the practices and resources for the provision of generic skills development at other universities within Australia. This was done via a scan of six external universities' websites and a visit to QUT's HDR Learning Support Unit.

Website scan

External university websites were scanned for HDR student skills development resources and initiatives. This included two Go8 institutions (The Australian National University and The University of Melbourne) and four Regional University Network (RUN) universities (Southern Cross University, The University of New England, The University of the Sunshine Coast and Central Queensland

University). This information was collected and organised in an [excel spreadsheet](#) as follows:

- University
- Site/resource
- Service provider (e.g. Learning Centre, faculty, particular program, Graduate School)
- Overarching skills
- Link to resources/initiative
- Description of resource/initiative
- Mode of delivery (e.g. Web page, video, PDF, slideshare, blog)
- Research skills addressed
- Target audience
- Data timeframe

The external website scan indicated the following considerations and needs for HDR learning and academic skills development:

- Providing for HDR academic skill needs can involve multiple stakeholders. For example at many of the institutions surveyed academic skills relating to HDR students were provided by the library, graduate school and/or the academic learning support unit.
- Resources should be provided online and initiatives advertised online. These also need to be easily accessible. At two of the institutions surveyed there were either no resources for HDR student skill development and training or these were not readily accessible/findable.
- The most accessible/findable information on initiatives and resources linked from multiple stakeholder webpages.
- Many institutions made use of embedded video to present information. Some made use of long recordings of face to face lectures others shorter PowerPoint presentations. One made use of shorter videos but organised in to a comprehensive 'contents' page.
- All institutions used text based web pages.
- One institution used outside providers (e.g. QUT's eGrad school) for certain services that HDR students then could use their research funds to pay for.
- Many institutions used StudyDesk type applications as well as webpages to present information.
- As indicated in Table 2. there were a wide range of academic skill needs provided for HDR students by the universities surveyed. Some of these were generic skills and others are more specific to HDR students.
- Most institutions provided face-to-face on campus workshops or writing initiatives such as Writing Bootcamp or Shut Up and Write.
- Most resources were HDR generic with some limited discipline-specific information.

Table 2 HDR academic skill needs - topics addressed at universities surveyed

Academic skill needs	
Writing	Statistical packages
Group work	Information organisation
Critical thinking	Assessing existing skills
Literature search	Managing supervisory relationships
Literature review	Data management
Thesis by publication	Systematic reviews
Using sources	Thesis structure
Leadership	Proposal structure
Abstract writing	Proof reading
Research career	Editing
Publishing	Networking
Research commercialisation	Authorship
Project management	Plagiarism
Presenting	Seeking help
Referencing tools	Ethics applications
Feedback	Examination
Grounded theory lit review	Time management
Processing findings	Journal targeting
Drawing implications	Article structuring
Presenting	Writing tools
Visual aids	Thesis writing
Posters	Proposal writing
Journal article writing	

QUT HDR Learning Support Unit Visit

As not all HDR skills resources and initiatives are accessible from a university's website, information was gathered during an invited visit to the University of Queensland's Research Student Support Unit. This information gathering visit

indicated the following considerations for HDR student learning and development needs:

- School and/or research centre writing groups are an effective way to develop writing, feedback and networking skills.
- Students require information on confirmation of candidature especially examples of written proposals.
- Many of the initiatives were focused towards on campus students due to QUT's large HDR on campus cohort.
- Many online resources were only available through a closed StudyDesk.

Gaps and Considerations for USQ

Taking into account the findings from the external and internal environmental scans the following considerations and gaps with the context of USQ HDR learning and skill development were identified:

- When designing and delivering resources and initiatives it is important to consider the student cohort. This will indicate the emphasis that should be placed on online resources or on campus 'live' events.
- Although USQ's ReDTRAIN provides training for HDR students this is quite diverse with little focus on developing HDR skills and attributes in the areas of supervisory relationships, time management, note taking, critical thinking, research design, the writing process, academic writing, structuring the confirmation proposal, structuring the thesis, and presenting.
- Students do not have reliable access to confirmation proposal examples.
- Current SLD resources for HDR students are limited.
- HDR resources are difficult to find on the SLD/Library website.
- There is little co-ordination between Library, SLD and ReDTRAIN resources and/or initiatives.
- Current generic SLD resources are very focused towards undergraduate students.
- Writing group initiatives are generally poorly attended.
- There are several successful writing groups operating in Schools and Research centres but many disciplines do not have this.
- Existing writing groups (School, Centre and HDR Bootcamp) are only available to on campus students and do not involve the formal facilitation or support of HDR academic and learning skills.
- There is no personalised skill support for HDR students identified as at risk.
- There is no formal system to provide feedback to students following one-on-one consultations.

- There is no formal system or resources for HDR learning Advisors to identify and respond to common issues during one-on-one consultations in a consistent manner.
- Very few if any resources are embedded/integrated into courses.

Recommendations/Plan of Action

To ensure that effective academic skills and learning are provided for HDR students at USQ, through the position of Learning Advisor (HDR), the following recommendations are provided:

- Design academic skills based learning materials to be delivered through the HDR Library and Information tutorial. This is a compulsory tutorial that all HDR students must complete before confirmation. This can be developed to become the one stop shop for HDR library and academic learning skills. If video is used it should be short (<5mins) and integrated into a broader topic. It must also meet equity requirements, for example a transcript should be provided.
- Integrate HDR skills into coursework through first embedding the HDR Library and Information tutorial in relevant HDR courses.
- Work with program coordinators to ensure that HDR skills are explicitly integrated into coursework and assessment.
- Design academic skills based learning materials to be added to the SLD and Research Support Team websites.
- Work with the SLD team to revise existing generic SLD resources to be HDR friendly and not overly undergraduate focused.
- Work with the ReDTRAIN team, SLD and Research Support Team to ensure that resources and initiatives are accessible and findable.
- Develop a confirmation of candidature database for proposals.
- Develop a HDR learning plan template to provide formal feedback and direction for students during one-to-one consults.
- Develop lesson plans for common issues. These can be used in one-to-one consultations and developed further into workshops or webinar sessions. They will also assist in creating consistency when new staff members enter the team.
- Develop and participate in on campus workshops and online webinars in conjunction with ReDTRAIN including the Research Writing Bootcamp, confirmation of candidature seminars, and thesis submission workshops.
- Cooperate with the Office of Research Graduate Studies to develop an integrated program of support for HDR students at risk.

Conclusion

This research project offers important insights into the generic skill needs of HDR students at USQ and provides the data necessary for the Learning Advisor (HDR) to engage in evidence based practice. Although there are existing USQ resources designed to meet the skill needs of HDR students many of these need to be revised and additional resources and initiatives developed. This should be done in order to align with best practice in the sector and better meet the needs of HDR students. If this can be accomplished following the recommendations made in this report then the learning journey and outcomes of HDR students will be improved.