Engaging Students as Partners in Research

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Overview

Engaging Students as Partners in Research:

• Where do they come from and what are they like?
• Terms of engagement
• Managing risk
• Some changes on the horizon
Engaging research students

Where do they come from?

RHD student pathways

National Research Student Survey (unpublished data, Edwards, Bexley & Richardson, 2011)

- Coursework postgraduate: 10.8%
- Honours: 25.9%
- Full-time employment: 55.3%
- Part-time or casual employment: 44.2%
- Looking for work: 11.1%
- Remaining: 0%

Q: What was your main activity in the year prior to commencing your research degree? (domestic research students only)
Where do they come from?

Domestic Cycle 2 course completions 2001 - 2009

Domestic cycle 3 (doctoral) commencements 2001 - 2009

Source: Students 2009 (full year)

Where do they come from?

Domestic cycle 1 (bachelor) completions 2001 - 2009

Source: Students 2009 (full year)
Where do they come from?

Domestic Cycle 2 commencements 2001 - 2009


Where do they come from?

Domestic Cycle 2 course completions 2001 - 2009

Where do they come from?

Domestic cycle 3 (doctoral) commencements 2001-2009


Coursework postgraduates considering pursuing a research degree

POSSE findings (Edwards, 2011, p.12)
Attracting RHD students: pathways

POSSE findings (Edwards, 2011, p.12)

Coursework postgraduate students most likely to consider a research degree (proportion of BFOE).

RHD student pathways

National Research Student Survey (unpublished data, Edwards, Bexley & Richardson, 2011)

Q: What was your main activity in the year prior to commencing your research degree? (domestic research students only)

55.3% Employed: Full-time (44.2%) or part-time/casual (11.1%)
Main activity prior to commencing research degree by broad field of ed.

76.7% reported prior work either Closely or Somewhat Related to current research degree

Q: If you worked in the year prior to commencing your research degree, how much was this job related to your current research degree?
Engaging research students

What are they like?

Domestic student age as a proportion of course level (2009)

Where do they come from?

Domestic RHD age as a proportion of broad field of study (2009)

Source: Students 2009 and follows-up
Research Higher Degree Students 2009, Australia overall

Research higher degree students:

Why are they here?
Why are they here?

The career aspirations of research students

Why are they here?

PhD Students views of candidature

<table>
<thead>
<tr>
<th>View of candidature</th>
<th>Respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional development</td>
<td>44</td>
</tr>
<tr>
<td>Education</td>
<td>17</td>
</tr>
<tr>
<td>Knowledge production</td>
<td>16</td>
</tr>
<tr>
<td>Personal development</td>
<td>13</td>
</tr>
<tr>
<td>Training</td>
<td>6</td>
</tr>
<tr>
<td>Not entered</td>
<td>2</td>
</tr>
<tr>
<td>Leisure</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: National Research Student Survey (Edwards, Bexley & Richardson, 2011)

Research graduate skills?

‘Skills’ can mean different things to different people.

Some of the identifiable ‘skills’ developed through research degrees include:

• Generic
  • Generic
  • Research
  • Disciplinary

• Highly specialised and context specific

The ‘main game’: an original contribution through research, to international standards.
‘Skills transfer’ not a blank slate

PhD student perceptions of capability transfer

<table>
<thead>
<tr>
<th>Capability/capability transfer</th>
<th>Employment to Doctoral*</th>
<th>Doctorate to Employment*</th>
<th>Difference in Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical thinking</td>
<td>65</td>
<td>54</td>
<td>11</td>
</tr>
<tr>
<td>Information &amp; communication technology</td>
<td>63</td>
<td>46</td>
<td>17</td>
</tr>
<tr>
<td>Time management</td>
<td>61</td>
<td>43</td>
<td>18</td>
</tr>
<tr>
<td>Problem solving</td>
<td>57</td>
<td>53</td>
<td>4</td>
</tr>
<tr>
<td>Working in teams</td>
<td>47</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>Writing</td>
<td>47</td>
<td>55</td>
<td>-8</td>
</tr>
<tr>
<td>Project management</td>
<td>45</td>
<td>33</td>
<td>12</td>
</tr>
<tr>
<td>Networking</td>
<td>42</td>
<td>28</td>
<td>14</td>
</tr>
<tr>
<td>Library</td>
<td>26</td>
<td>51</td>
<td>-26</td>
</tr>
<tr>
<td>Occupational health &amp; safety</td>
<td>25</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Ethical</td>
<td>19</td>
<td>29</td>
<td>-10</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>6</td>
<td>-2</td>
</tr>
</tbody>
</table>

[Note: 1st row refers to percentage of total survey population, 2nd row refers to percentage of total survey population.]


Opportunities for research graduates

Proportion of students reporting high levels of agreement on the extent to which their research degree prepares them for work

National Research Student Survey (Edwards, Bexley & Richardson, 2011)
Managing risk

Where is all this going?

Some tips on managing risk

Some points to inform risk management strategies in engaging students as partners in research:

1. Do your best to ensure clarity around expectations prior to commencement
   - IP
   - ‘Ownership’
   - Identify and value flexibility

2. Ensure that minimum standards are being met
   - Supervisory arrangements
     - Tracking important
     - Multiple points of contact spread risk for both parties
   - Resources
     - Having a minimum standards policy solves a lot of arguments

3. Collegiality in research
   - Students are both colleagues and students – try to seek a balance
   - Try to foster both kinds of collegiality
     - Industry-side
     - Student-side
Finally, some changes on the horizon

- Review of the commercialisation training scheme
- Knight review of Australia’s student visa program
- Research workforce strategy -> Review of the Research training scheme

Review of the RTS

Proportion of domestic students enrolled part time by course type and broad field of education (2009)

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Bachelor (pass and GE)</th>
<th>Honours</th>
<th>Grad. Cert./Dip.</th>
<th>Coursework Masters</th>
<th>Research Higher Degree (all)</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management &amp; Commerce</td>
<td>27.8%</td>
<td>16.1%</td>
<td>88.4%</td>
<td>77.9%</td>
<td>57.2%</td>
<td>42.8%</td>
</tr>
<tr>
<td>Ag. Environmental &amp; Related Studies</td>
<td>29.7%</td>
<td>18.5%</td>
<td>87.1%</td>
<td>81.1%</td>
<td>39.6%</td>
<td>41.0%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>29.5%</td>
<td>21.5%</td>
<td>85.5%</td>
<td>78.9%</td>
<td>43.7%</td>
<td>39.7%</td>
</tr>
<tr>
<td>Society &amp; Culture</td>
<td>28.4%</td>
<td>28.4%</td>
<td>68.4%</td>
<td>75.9%</td>
<td>48.8%</td>
<td>39.3%</td>
</tr>
<tr>
<td>Education</td>
<td>19.8%</td>
<td>23.7%</td>
<td>60.7%</td>
<td>70.0%</td>
<td>75.4%</td>
<td>36.6%</td>
</tr>
<tr>
<td>Health</td>
<td>17.7%</td>
<td>17.7%</td>
<td>84.2%</td>
<td>67.7%</td>
<td>48.3%</td>
<td>29.7%</td>
</tr>
<tr>
<td>Engineering &amp; Related Technologies</td>
<td>16.0%</td>
<td>3.2%</td>
<td>90.8%</td>
<td>84.2%</td>
<td>31.2%</td>
<td>26.4%</td>
</tr>
<tr>
<td>Architecture &amp; Building</td>
<td>17.0%</td>
<td>7.7%</td>
<td>85.3%</td>
<td>41.7%</td>
<td>56.1%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Natural &amp; Physical Sciences</td>
<td>18.8%</td>
<td>11.3%</td>
<td>83.3%</td>
<td>73.7%</td>
<td>28.0%</td>
<td>23.7%</td>
</tr>
<tr>
<td>Creative Arts</td>
<td>16.4%</td>
<td>18.2%</td>
<td>63.9%</td>
<td>59.9%</td>
<td>44.6%</td>
<td>22.5%</td>
</tr>
<tr>
<td>Overall</td>
<td>22.6%</td>
<td>20.7%</td>
<td>74.2%</td>
<td>73.2%</td>
<td>45.9%</td>
<td>35.1%</td>
</tr>
</tbody>
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