The student departure puzzle: Do some faculties and programs have answers?

Learning and Teaching Seminar
12 September 2005

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Seminar Objective

Interactive session exploring student attrition and variation within CQU
Seminar Outline

- Setting the scene
- What is student attrition?
- Current theories on Student Attrition
- Current evidence on factors affecting it
- Variations across disciplines
- Faculties/schools/programs as sub-cultures
It is a game of money, honour and patronage.

The publication of the first set of teaching and learning rankings for Australia's universities has coincided with an analysis of Australian Research Council grants that shows – surprise, surprise – that men in traditional subjects in the older universities do better. That mixture of grievance and defensiveness characteristic of higher education came quickly to the fore....
It is a game .... (Cont’d)

All those who think the teaching and learning outcomes (prepared by the federal education department) were “flawed” or “misleading”, or just plain wrong, need to come up with a better measure. …

(Aitkin, 2005, p. 33; emphasis in original)
It is a game …. (Cont’d)

My guess is that there will usually be as much within-university variation as across-university variation, so that a single index figure for each university will conceal as much as it reveals…

(Aitkin, 2005, p. 33; emphasis in original)
What is student attrition?

- Student leaves without graduating
- Not course pass rates
- Converse of retention
- Similar to Progression
- Related to completion
- Churners and program attrition
- Moving to a different institution
- First year rate highest
Is student attrition BAD?

A case can be made that attrition is not necessarily bad or not necessarily always bad.
Is student attrition BAD?

- Survival of the fittest
- Improves graduate outcomes
- Fills quota
- Concentrates resources on ablest students
- Partial study not a loss
- Informed choice
- Bill Gates
Current theories

...the broad dimensions of a theory of student retention are starting to emerge. Among other things, we can say with a good deal of confidence that

- Academic preparation
- Commitments and
- Involvement

matter.  

(Tinto, 2005; structure modified)
Braxton’s classification of Theories

- Economic
- Organizational
- Psychological
- Sociological
- Interactionalist (integrated, Tinto)

(Braxton, 2000)
Dichotomous models

- Residential Vs Commuter institutions (U.S.) (Braxton and Hirschy, 2005)
- Survivalist Vs Remedialist (U.K.) (Simpson, 2003)
Astin and Oseguera

50,000 students across 262 U.S. institutions. Multivariate regression analysis of 47 factors.

Most important factors for completions:

- Selectivity of institution
- School grades
### Table: Institutional Drift

<table>
<thead>
<tr>
<th></th>
<th>Urban</th>
<th>Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue</td>
<td>85</td>
<td>80</td>
<td>83</td>
</tr>
<tr>
<td>Exit</td>
<td>7</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Move</td>
<td>8</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>

*(from Table 12)*
Learning and Teaching Performance Fund

Gives bi-variate regression $r^2(\%)$ values for 17 factors. Examples:

- Gender: 0.00
- Age: 0.73
- Indigenous: 0.16
- Socio-economic status: 0.01
- Location (rural/isolated): 0.25
- Full-time/part-time: 2.27
- External/internal: 1.10

(DEST, 2005)
### Australian Predicted Completion Rates

<table>
<thead>
<tr>
<th>Category</th>
<th>Predicted Completion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>67.1</td>
</tr>
<tr>
<td>Male</td>
<td>60.5</td>
</tr>
<tr>
<td>External</td>
<td>39.5</td>
</tr>
<tr>
<td>Full-time</td>
<td>69.5</td>
</tr>
<tr>
<td>Part-time</td>
<td>52.1</td>
</tr>
<tr>
<td>Non-TER</td>
<td>62.2</td>
</tr>
<tr>
<td>TER</td>
<td>66.9</td>
</tr>
<tr>
<td>Urban</td>
<td>64.1</td>
</tr>
<tr>
<td>Rural</td>
<td>65.1</td>
</tr>
<tr>
<td>Isolated</td>
<td>61.5</td>
</tr>
<tr>
<td>$ Most advantaged</td>
<td>66.2</td>
</tr>
<tr>
<td>$ Most disadvantaged</td>
<td>62.2</td>
</tr>
</tbody>
</table>

(Commenced 1993)  

(Martin et al, 2001)
## Completion rates by Discipline

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Completion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>58.3</td>
</tr>
<tr>
<td>Arts, Humanities, Soc. Science</td>
<td>58.4</td>
</tr>
<tr>
<td>Engineering, Surveying</td>
<td>59.4</td>
</tr>
<tr>
<td>Agric., Animal husbandry</td>
<td>62.4</td>
</tr>
<tr>
<td>Bus., Admin., Econ.</td>
<td>62.5</td>
</tr>
<tr>
<td>Architecture, Building</td>
<td>64.7</td>
</tr>
<tr>
<td>Education</td>
<td>71.4</td>
</tr>
<tr>
<td>Law, Legal studies</td>
<td>72.0</td>
</tr>
<tr>
<td>Nursing</td>
<td>75.2</td>
</tr>
<tr>
<td>Health</td>
<td>78.5</td>
</tr>
<tr>
<td>Veterinary Science</td>
<td>89.8</td>
</tr>
</tbody>
</table>

(Commenced 1993)  (Martin et al, 2001)
### What students wholeave say

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial problems</td>
<td>56%</td>
</tr>
<tr>
<td>Lack of motivation</td>
<td>51%</td>
</tr>
<tr>
<td>Lack of interest in that program</td>
<td>46%</td>
</tr>
<tr>
<td>Work commitments</td>
<td>44%</td>
</tr>
<tr>
<td>Not clear what career opportunities exist</td>
<td>39%</td>
</tr>
<tr>
<td>Family responsibilities</td>
<td>35%</td>
</tr>
<tr>
<td>Unexpected events</td>
<td>34%</td>
</tr>
</tbody>
</table>

(QSA, 2004; Table 32)
What students say ........

Loneliness and isolation  28%
Poor academic performance  23%
Health problems  22%
Transport problems  21%
Lack of support from partner/family  12%
Inadequate computer skills  6%
Inadequate literacy/numeracy skills  5%

(QSA, 2004, Table 32)
CQU Variation by Faculty

Fig 1: Attrition rate by Faculties

(Danaher, Bowser and Somasundaram, 2005)
CQUV Variation by Program

Fig 3: Attrition Vs Program size

(Danaher, Bowser and Somasundaram, 2005)
SomeQuestions

- Should we worry about or celebrate cross-program/cross-discipline student attrition?
- What should we focus on – Faculties, schools, programs or courses?
- Should we tighten recruitment? – How?
- Are student characteristics across faculties different? How?
Conclusion

We suggest that both conceptually informed and methodologically framed dialogue and multi-variate analysis of data are necessary next steps in understanding why progression rates vary so much within institutions and across disciplines, in order to extend our collective understanding and management of the departure puzzle.

Danaher, Bowser and Somasundaram (2005)
Acknowledgements

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References


