Employing Learning Analytics to transform subject delivery to a slow release, student participatory design

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Setting the scene

• Correlation between lecture attendance and academic achievement (Alzhanova-Ericsson, Bergman, & Dinnétz, 2017; Credé, Roch, & Kieszczynka, 2010)

• Attendance rates threatened (Yeung, Raju, & Sharma, 2016)
EDPD202 (2010-2017)
BPrimEd 2nd year Professional Development subject

Once a week:

Once a fortnight:
Learning Analytics

IMPACT AREAS

Boosting retention
• Identify struggling students sooner
• Personalised interventions

Enabling students to take control of their own learning
• Set learning goals
• Reflect and adjust accordingly

Enriching learning design
• Self monitor and evaluate
Learning Analytics data (2017)
EDPD202 (2018)
BPrimEd 2nd year Professional Development subject

Over a fortnight:

Module 1: Metacognition

Module 2: Planning and Programming

Module 3: Assessment
This topic will explore what, how, and why teachers assess. This is because assessment is a crucial element of teaching and learning.

To complete this module, you will be required to:
- Read a reading
- Complete questions related to the reading
- Watch a video
- Complete questions related to the video
- Assessment Quiz regarding module content (due by Fri Sept 7th, 11:59pm)

Module Status: Incomplete

Once a fortnight:

[Image of students in a classroom]
## Results - cohort comparison

### ATAR and WAM

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students*</td>
<td>210</td>
<td>151</td>
</tr>
<tr>
<td>Mean WAM (post-session)</td>
<td>69.4</td>
<td>70.7</td>
</tr>
<tr>
<td>Mean ATAR (where available)</td>
<td>69.5</td>
<td>69.9</td>
</tr>
<tr>
<td>Pass %</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Average mark</td>
<td>69.7</td>
<td>74.4 ***</td>
</tr>
<tr>
<td>Standard deviation mark</td>
<td>6.8</td>
<td>7.6</td>
</tr>
</tbody>
</table>

*Excludes students who withdrew prior to academic penalty date.

*** $P < 0.05$
Results - cohort comparison

Moodle Activity

Fraction of students active on Moodle, by date

Number of interactions with Moodle per student, by date

Dashed lines indicate average percentage of students active online throughout the session.

Dashed lines indicate mean interactions per student across the active period.
Results - 2018 Moodle modules

Lesson access and revision

Revision following quiz completion

Lesson access, by week

The y-axis counts the number of (distinct) students who accessed any pages of the lesson in that week.
Lessons Learned

• Positive feedback from students
• Content experts
• Front-loading the effort
• Ethics
Thank you!

Questions?