Critical Interventions
The potential role of Assessment Analytics in Academic Language and Learning

‘Critical Intersections: the 12th Biennial Conference of the Association for Academic Language and Learning, University of Wollongong 25-27th November 2015'
Silos

Self selecting
Passing on
‘Wheeling in’

Embedded

Assessment analytics
Team teaching
“In higher education many institutional decisions are too important to be based only on intuition, anecdote, or presumption; critical decisions require facts and the testing of possible solutions”

(Campbell & Oblinger, 2007, p. 2).
Academic Analytics

Learning Analytics

Using data to make informed decisions regarding student learning

Assessment Analytics

The analysis of assessment data within a learning analytics strategy

Euphemism for Business intelligence
All students are assessed and all tutors mark student work

Ubiquitous

Widely understood

Important

Routine

Normative

Expected

Everyone ‘gets’ it

It’s what students pay for

It’s what tutors are paid to do

Focused on achievement not just retention
Individual Academic

Self

Student

Teaching Evaluation

Diagnostic
Individual Academic

Self

Teaching Evaluation
2009-10/2010-11 Rubric Result Comparison

Rubric Criteria

Criterion 5 10-11
Criterion 5 09-10
Criterion 4 10-11
Criterion 4 09-10
Criterion 3 10-11
Criterion 3 09-10
Criterion 2 10-11
Criterion 2 09-10
Criterion 1 10-11
Criterion 1 09-10

% Students

0% 20% 40% 60% 80% 100%

1st
2.1
2.2
3rd
fail
Individual Academic

Self
Student
Teaching Evaluation
Diagnostic
Individual Academic

Student

Diagnostic
‘more openness in dealing with writing as a social system where ‘visible’ writing differences are used to discriminate, and an acknowledgement of the complexity that students face in minimising these differences’

(Hill, 2011, p.213).
“information about the gap between actual and reference levels is considered as feedback only when it is used to alter the gap”

(emphasis original) (Sadler, 1989, p. 121).
“The only way to tell if learning results from feedback is for students to make some kind of response to complete the feedback loop”

(David Boud, 2000, p. 158).
“this is one of the most oft forgotten aspects of formative assessment”

(David Boud, 2000, p. 158).
“’dangling data’ substituting for effective feedback’
(Sadler, 1989, p. 121).
Close the loop
Methodology

Assessment Analytics workshop
• Day after return of feedback

Two sided worksheet
• Same Questions
• Before and after seeing data

Shift
• Motivation to act on feedback
• Importance of feedback

Qualitative data:
• ‘Any surprises?’
• Focus groups
How likely are you to use your feedback on your next assignment?

**Before**
- Very Likely: 32%
- Likely: 48%
- Neither Likely or Unlikely: 11%
- Unlikely: 7%
- Very unlikely: 2%

**After**
- Very Likely: 64%
- Likely: 29%
- Neither Likely or Unlikely: 5%
- Unlikely: 0%
- Very unlikely: 2%
Motivational Impact of Assessment Analytics

- Application
- Secondary Resources
- Structure
- Expression and Punctuation
- General

Number of Students

Difference in Motivation to Act on Feedback
Clearer sense of where they sit in comparison to others.

Motivation to improve.
Not happy with a 62 when 50% of people got over 60.

How many people make same mistakes and how all the highest marks didn't involve any [underlined] of these mistakes.

Surprised at how many people fail from/get bad marks through punctuation. I do this so I don't feel as bad to know others do but it makes me want to be better than them and fix my failing.
Because I felt like I needed to do better no matter where I had done: there were people above me therefore I needed to be better [...] It’s like horses: they see each other [...] they have to be the one in front.
Shifting attention to areas they tend to neglect.
Sentence structure is an area that I MUST improve as it is something that I am consistently told it is my weakness.

How badly wrong punctuation can make a difference to your overall mark. That 10% can be the difference between one grade boundary and the other.

That punctuation is such a big problem for so many people (me included!)

I hadn't realised how overly long or grammatically confusing sentences would affect the overall mark.
some of the others they just hand out the rubric and they just, like, when it gets to the grammar one they wouldn’t really explain it […] it’s just “oh well that one’s self-explanatory, I’ll just move onto the next one”

I think you sort of ignored the feedback in a way I know it sounds bad but because … on my essay for [a previous module] I had “comma splice” written on, didn’t actually know what it meant and … so I just thought “just leave that”
Motivating high-achieving students.
Even with full marks, I feel I need to work on structure.
Seeing a bigger picture.
How many people make same mistakes and how all the highest marks didn't involve any of these mistakes.

I'm surprised a lot of people didn't do a good introduction.
Emotional.  
Sensitive.
I'm absolutely stupid.

Yes quite a lot. has been challenging.

I worked so hard and still got a 2:2, gutted I also thought my introduction was good and it was terrible :(
I think it was useful to … go through the rubric again after we’d submitted the assignment but I do think it was awkward (having) everybody’s marks on screen. …Imagine if you got a fail and you had to put that you were in the one per cent bottom.

If I’d been the person that got the lowest mark I wouldn’t want to come to classes any more … I’d feel devastated.
But only for some!
No not at all
University’s a tough experience and we’re always going to feel uncomfortable doing things because there’s going to be certain things [that] we have to do that are going to be way, way out of our comfort zone and making sure that this sort of feeling is done in a controlled environment with people who can turn it into something constructive is the best way to do it if it has to be done ... and I think it does have to be done. ... The way [the tutor] did it, she turned it into something that’s constructive, that we can use in the future and we can see where we are and we can see where everybody else is and we can see what we need to do to get better.
Why hasn’t anyone told me this before?
What now?

Information

Analytics  Intervention
Figure 1. Conceptual Representation of the LATUX Workflow for Designing and Deploying Awareness Tools.
# Problem identification

- What are the requirements?
- What are the (unexplored) possibilities?
- Who are the stakeholders?
- What are the available data sources?
- How can data be captured?
- What is the learning context?
- What are the learning tools?
- What is the intended pedagogy?
- How to evaluate the LA tools?
Feedback Loop Mark 2  
Boud 2000
Activity 1 → Information to student → Activity 2 → Information to student → Activity 3

Course or cohort 1 → Information to teachers and learning support services on effect of all of their information on student → Course or cohort 2

Feedback Loop Mark 3

Adapted from Boud
Learning support ‘sieve’

One-to-one interventions

One-to-many interventions
Priority: Punctuation

Activity 1: Short writing task
Information to student
Activity 2: Longer writing task
Information to student
Activity 3: Final writing task

Information to learning centre

Intervention: Group workshops on specific punctuation problems

Information to tutor
Priority: Punctuation

Activity 1
Short writing task

Information to student

Activity 2
Longer writing task

Information to student

Activity 3
Final writing task

Intervention:
Self-paced learning resources on punctuation

Information to tutor
Priority: Paragraph structure

Activity 1
Short writing task

Information to student

Activity 2
Longer writing task

Information to student

Activity 3
Final writing task

Information to learning centre

Intervention: Group workshops on paragraph structure

Information to tutor
Priority: Analysis

Activity 1
Short writing task

Information to student

Activity 2
Longer writing task

Information to student

Activity 3
Final writing task

Information to learning centre

Intervention: Group workshops on analysis

Information to tutor
Priority: Information literacy

Activity 1
Short writing task

Information to student

Activity 2
Longer writing task

Information to student

Activity 3
Final writing task

Information to library

Intervention: Group bibliographic instruction workshops

Information to tutor
Interventions

- Targeted and personalised
- Just in time
- Peer learning
- Rewards and consequences: close the loop

Interventions
Contract Cheating
Essay Mills
Bespoke Essays
Ghost Writing
Contract Cheating
Contract Cheating
Contract Cheating
Contract Cheating
Paid
- Cash
- Barter

Unpaid
- Favours
- Mutual obligations
Cut and paste copying

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Paying for what you see,
not for what you're promised
Educational Institutions + Students → Responsibility
Good
Good Enough
Early warning system

- Intervention: English language acquisition support
Bibliography


What can we do?

Risks

- Being dobbed in
- Poor quality work
- Poor data security
- Unis archiving for future detection

Encourage students to dob each other in
What can we do?

Help others

• Don’t panic
• Indication that something has been procured
• No one has done anything wrong until it’s submitted for assessment
• Keep a look out for anything fishy
• Look at document properties

Know the signs of contract cheating
What can be bought?
Anything
“requested turnaround times for contract cheating are [...] on average 5 days, and there appears to be a large capacity for shorter turnaround times to be achieved”

(Wallace & Newton, 2014, p. 235)
What can we do?

Cheating is not a victimless crime

- Cheating themselves
- Cheating each other
- Cheating their future employers
- Cheating their future clients
- Public risk: nursing, aviation, nuclear power plant engineering…