Assessment in a digital age: Rethinking multimodal artefacts in higher education

Jen Ross (University of Edinburgh)
Amani Bell (Innovative Research Universities)
Jen Scott Curwood (University of Sydney)

D+E CENTRE FOR RESEARCH IN DIGITAL EDUCATION

CENTRE FOR RESEARCH ON LEARNING AND INNOVATION

The University of Sydney

Edinburgh Sydney Partnership Collaboration Awards

"This jointly funded scheme between University of Edinburgh and University of Sydney supports up to 5 new projects per year to broaden and deepen the partnership between our universities."

Background

The University of Edinburgh and University of Sydney have a long history of partnership that includes research and student mobility. In 2016, we committed to strengthening this relationship by increasing further our student mobility numbers and launching a new strategic partnership fund. In 2017 the fund supported five new projects across the University in collaboration with colleagues at the University of Sydney – these projects included:

Environmental Humanities and Social Sciences at Sydney and Edinburgh: Exploring Partnerships on Oceans and Everyday Environmentalism

Strategic Global Food Security Alliance in support of Planetary Health

Methodological Innovations for Assessing Learning in Digital Spaces

Optimising perinatal nutrition to improve health of the next generation: Edinburgh Sydney Partnership: cONqUeST

The Family that eats together: Images of commensality across two cities

- Digital assignments are increasingly part of the landscape of higher education, across many disciplines.

- Students have varying levels of competence and engagement with social, visual, interactive, and multimodal information spaces outside formal education.

- They also have varying abilities to translate informal engagement into critical and creative capacities to work with and generate knowledge in formal settings.

teachers may be consciously or unconsciously working with "a paradigm of assessment rooted in a print-based theoretic culture" (Curwood, 2012, p. 232).

assessment rubrics for multimodal assignments need to be revisited.
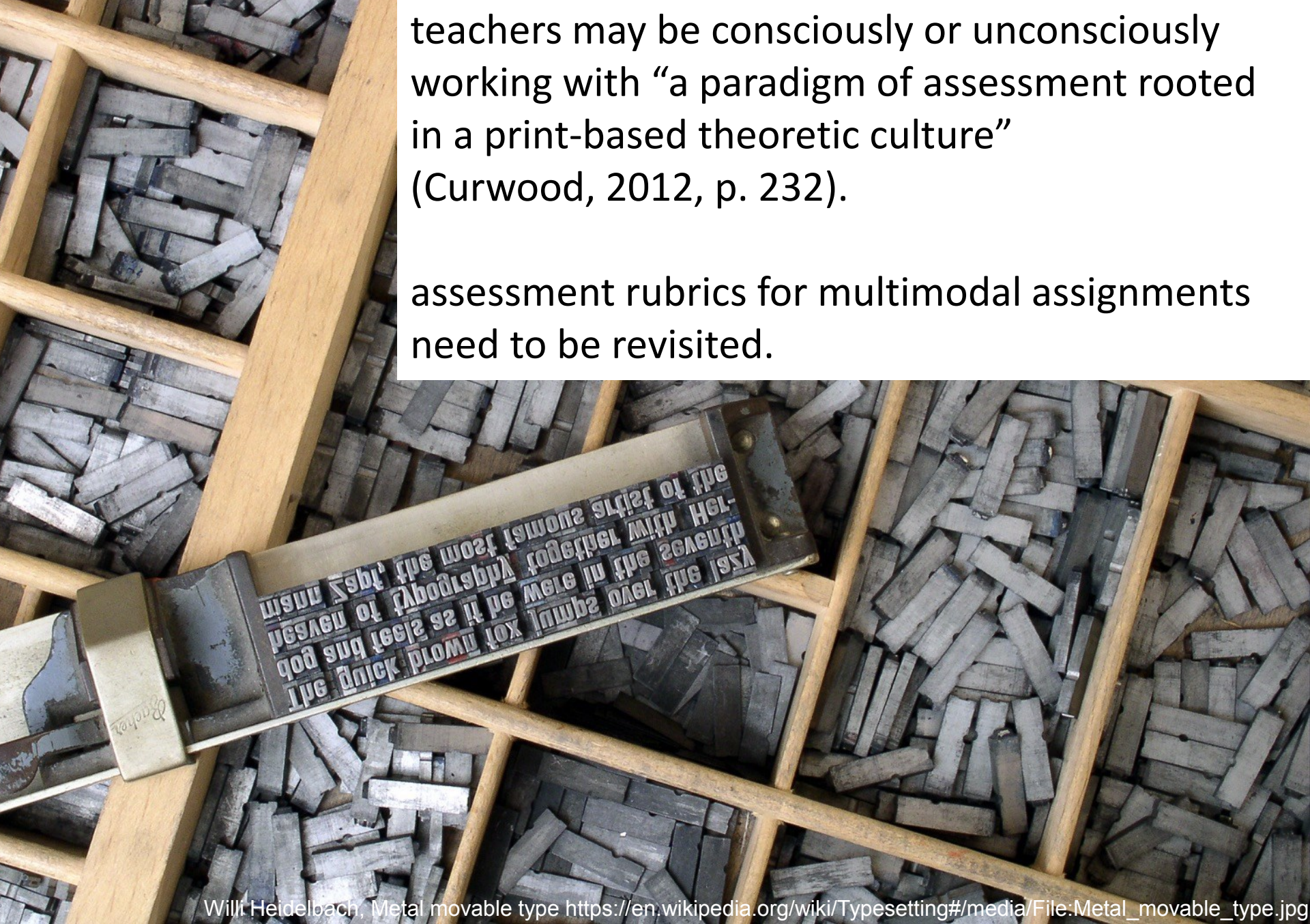
Willi Heidelbach, Metal movable type https://en.wikipedia.org/wiki/Typesetting#/media/File:Metal_movable_type.jpg

Research questions

- How do university students use assessment criteria for self and peer assessment of multimodal work?

- How do teachers in higher education effectively design and assess students' multimodal work?

- How can theories of mobilities and place-based learning inform research into and assessment of multimodal student work?

grade descriptors, rubrics, exemplars

- some students are able to use them to accurately assess their peers' work, to guide and structure their own work, and as a checklist (Bloxham & West, 2004; O'Donovan, Price & Rust, 2001; Bell, Mladenovic & Price, 2013).

- many students find the language used in rubrics and grade descriptors to be subjective and vague (Price & Rust 1999).

- providing more detailed criteria can paradoxically increase students' anxieties and "lead them to focus on sometimes quite trivial issues" (Norton, 2004, p. 693), with some students leaning heavily on rubrics and exemplars as 'recipes' (Bell et. al., 2013).

Cleonard1973, https://commons.wikimedia.org/wiki/File:Rubric.jpg
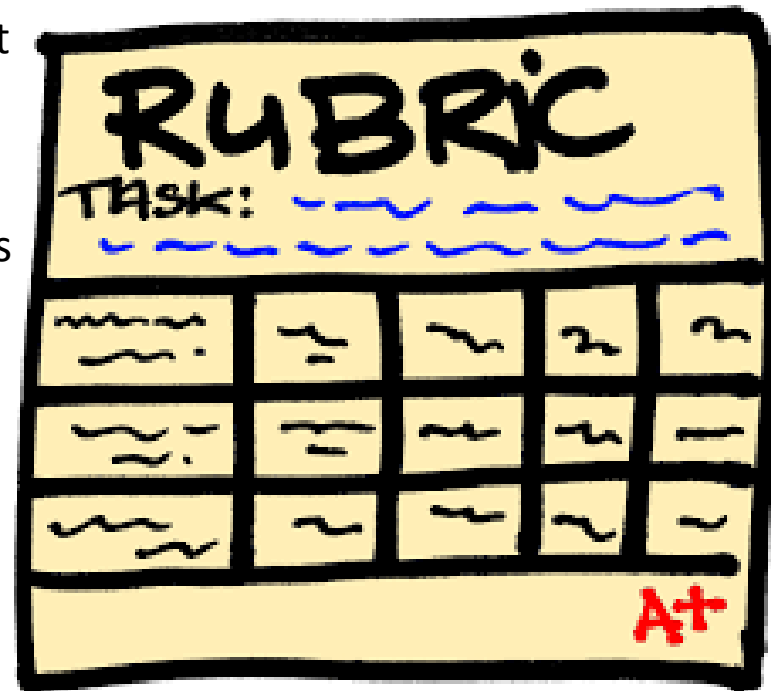
multimodality, mobilites

"The multimodal production of culture [is] characterised by changing dynamics of space and time, dynamics that are changing the meanings and effects of cultural production and distribution"
(Leander and Vasudevan 2009, p. 130).

- modalities for decoding, comprehension and production of knowledge extend far beyond written language (Curwood & Gibbons, 2009).
- there is a need for more nuanced understanding of the "complex ways in which technical skills, composition elements, modes, and meaning interact" in student work (Curwood 2012, p. 242).
- greater attention to materiality, including artefacts (Pahl & Rowsell, 2011), movement (Leander & Vasudevan, 2009), and place (Ruitenberg, 2005) enriches this understanding.

methodology

- Over two semesters in 2017 and 2018, we analysed, in depth, the creation and assessment of work in an undergraduate class about film and theatre at the University of Sydney.
- Approximately 130 students take the course each year, mostly study abroad or international students.
- The final assignment was a short digital film about Australian culture. Student worked in pairs to create a three-minute film about their "Australian cultural experience", including structured narrative, interviews, cinematic elements, and a reflective account of the process.

Stage 1: analysing existing processes and assignments, conducting interview and focus groups with students, interviews with tutors, and developing an assessment framework.

Stage 2: redesign of the assessment task, building on the new framework.

Stage 3: comparative analysis of the old and new assignments, further interviews.

	Does Not Meet Criteria	Meets Criteria	Exceeds Criteria
Cultural narrative experience	Video is not approximately 3 minutes. Video does not adequately demonstrate Australian cultural experience narrative. Video does not contain at least 3 interviews.	Video is approximately 3 minutes. Video adequately demonstrates Australian cultural experience narrative. Video contains 3 interviews.	Video is approximately 3 minutes. Video demonstrates a sophisticated Australian cultural experience narrative. Video contains 3 interviews.
Cinematic elements	Video provides limited or no examples of: • Camera shots, angles & movement to create meaning • Use of lighting to great atmosphere • Diegetic and non-diegetic sound • Editing of shots • Music & graphics	Video provides some examples of: • Camera shots, angles & movement to create meaning • Use of lighting to great atmosphere • Diegetic and non-diegetic sound • Editing of shots • Music & graphics	Video provides numerous examples of: • Camera shots, angles & movement to create meaning • Use of lighting to great atmosphere • Diegetic and non-diegetic sound • Editing of shots • Music & graphics
Collaboration	No personal or limited video statement regarding choice of cinematic elements and meaning, role and collaboration.	Adequate personal video statement outlining choice of cinematic elements and meaning, role and collaboration.	Personal video statement of a high order demonstrating variety of cinematic elements and meaning, role and collaboration.

[one group] used one interview but used it extremely well. I'm quite flexible and adaptable when it comes within the criteria. So if something is absolutely brilliant, of which this one was overall, then I wouldn't penalise them. They really still came up here in the 'exceeds criteria' which is why they ended up getting a high distinction. (Tutor, Interview 1)
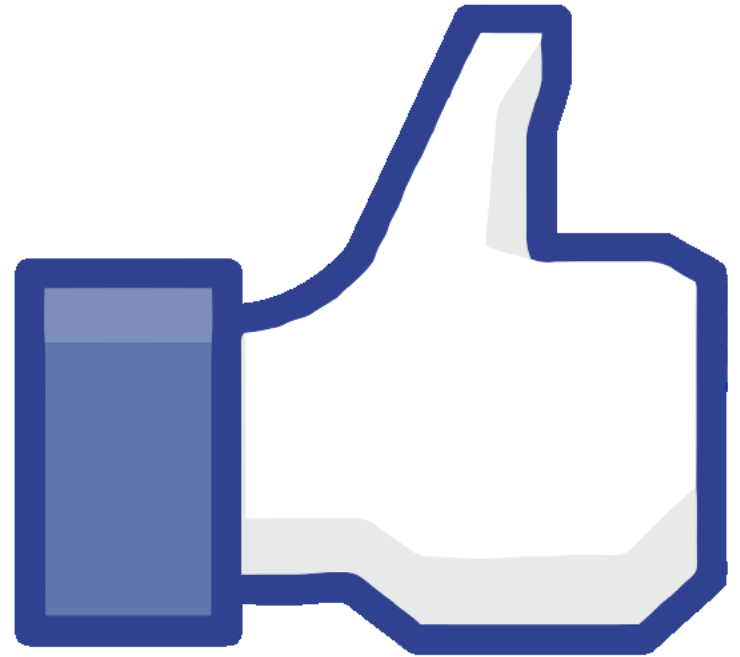
"We knew we needed a lot of cool angles, and different shots, so we started thinking 'What would be really neat and catching to eye?' **The thing we struggled with looking at the rubric was the narrative**, having a narrative, but everything else we were able to look at and make sure was in the project."

(Student, Focus Group 2)

"when it says 'the video demonstrates a sophisticated Australian cultural experience narrative, **I don't really know what [the tutor] means by sophisticated**. Personally our project was more humorous, I don't think you'd look at our video and say 'That's a sophisticated piece of art'. ...But I still got really high marks on my assignment, and so **really vague words like 'sophisticated', I think really limits people's creativity**. ...[the students] don't exactly know what [the tutors] want." (Student, focus group 1)

"we shot mostly in muted lighting – I think because this is a serious film, the overcast helped to set the tone"

"we wanted to look into this issue because we both came here thinking it was a really healthy culture"

– filmmakers in their reflective summary

Multimodal assessment literacy

Students need support to develop multimodal assessment literacy:

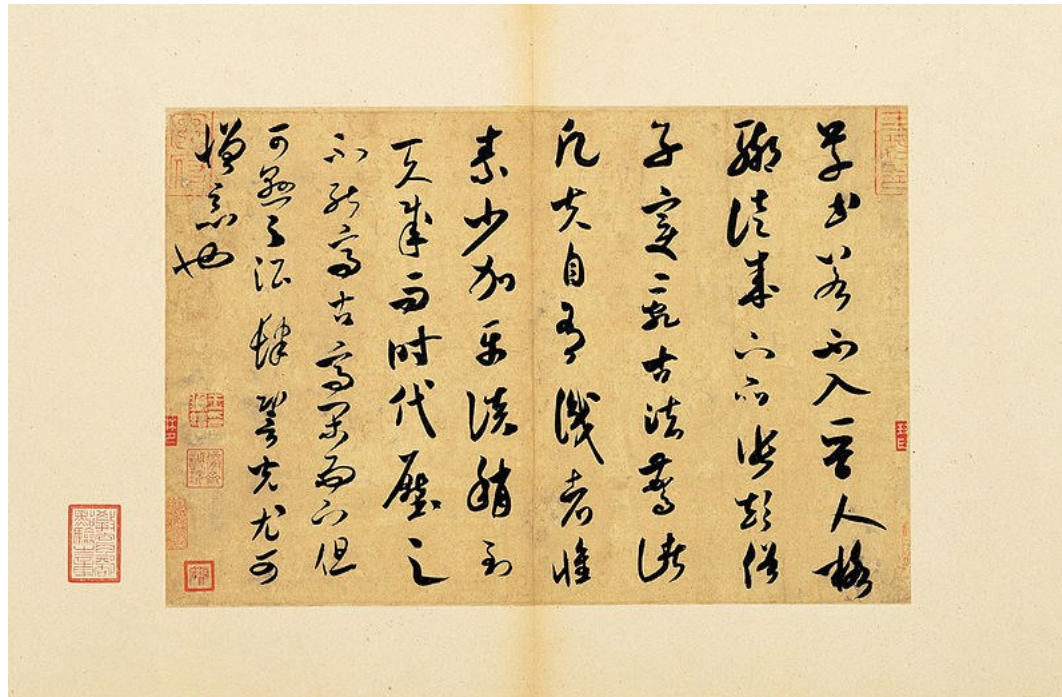- to know what the tutor is looking for

- to identify it in their own work

- to see the assessment process as a dialogue.

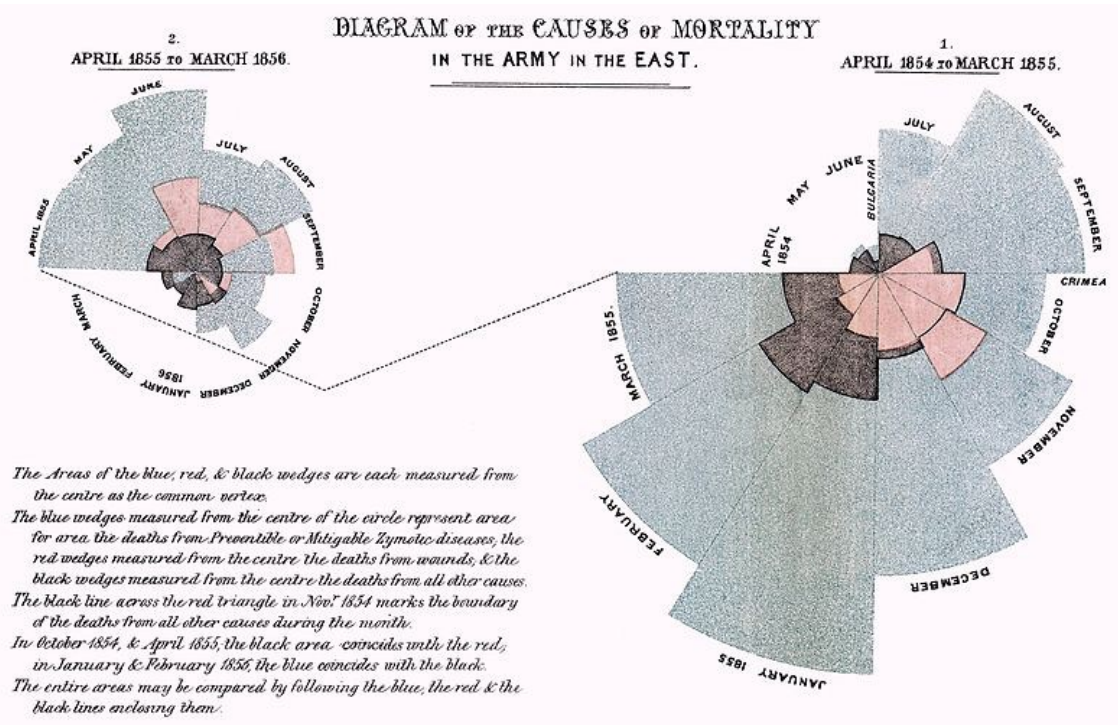*Thomas Faed, 1825 - 1900. Artist (in his studio)*, John Ballantyne, National Galleries of Scotland

Creative constraint

There is tension between constraint and creativity which can be developed constructively.

https://commons.wikimedia.org/wiki/File:Mi_Fu-On_Calligraphy.jpg

Form and content intra-act

DIAGRAM OF THE CAUSES OF MORTALITY
IN THE ARMY IN THE EAST.

2.
APRIL 1855 TO MARCH 1856.

1.
APRIL 1854 TO MARCH 1855.

The Areas of the blue, red, & black wedges are each measured from the centre as the common vertex.
The blue wedges measured from the centre of the circle represent area for area the deaths from Preventible or Mitigable Zymotic diseases, the red wedges measured from the centre the deaths from wounds, & the black wedges measured from the centre the deaths from all other causes.
The black line across the red triangle in Nov. 1854 marks the boundary of the deaths from all other causes during the month.
In October 1854, & April 1855, the black area coincides with the red; in January & February 1855, the blue coincides with the black.
The entire areas may be compared by following the blue, the red & the black lines enclosing them.

Nightingale's 1858 diagram of the causes of mortality in the British army (blue is preventable disease).

Criticality in multimodal work is expressed in the intra-actions between content and form.

https://commons.wikimedia.org/wiki/File:Nightingale-mortality.jpg

Looking at intra-actions

Looking holistically at multimodal work is both essential AND a challenge for assessment.

"multimodal decomposition" (Bateman 2012) – the tendency to look at each individual mode rather than holistically

ASSESSMENT IS AN ACT OF INTERPRETATION, NOT JUST MEASUREMENT.

Lamb, manifesto for teaching online, https://vimeo.com/222406740

The bigger picture

A careful focus on the goals of the course is important in developing and redeveloping multimodal assignments.

Illymarry, https://commons.wikimedia.org/wiki/File:Old_Clock_Close_Up.jpg

Framework in progress

- Criticality, cultivating creativity, holistic approach, valuing multimodality.

	Criticality	Creativity	Holism	Valuing multimodality
students are supported to use the rubric as more than a checklist	x	x		
students can experiment with different digital and creative processes		x		x
aesthetic dimensions are surfaced in the assessment process		x	x	x

Next steps:

- Finalise framework (including seeking more input)

- Write and publish

- Develop new use cases – including potentially a joint project to explore possibilities and limitations of automating feedback and supporting feedback literacy.