

Towards authentic assessment: fostering student learning and engagement.

Panel 5: Towards authentic assessment in HE

2nd International Virtual Meeting: Teaching, Learning and Assessment in HE

Centre for Research and improvement of HE,
Universidad Del Desarrollo, Chile

26 November 2021

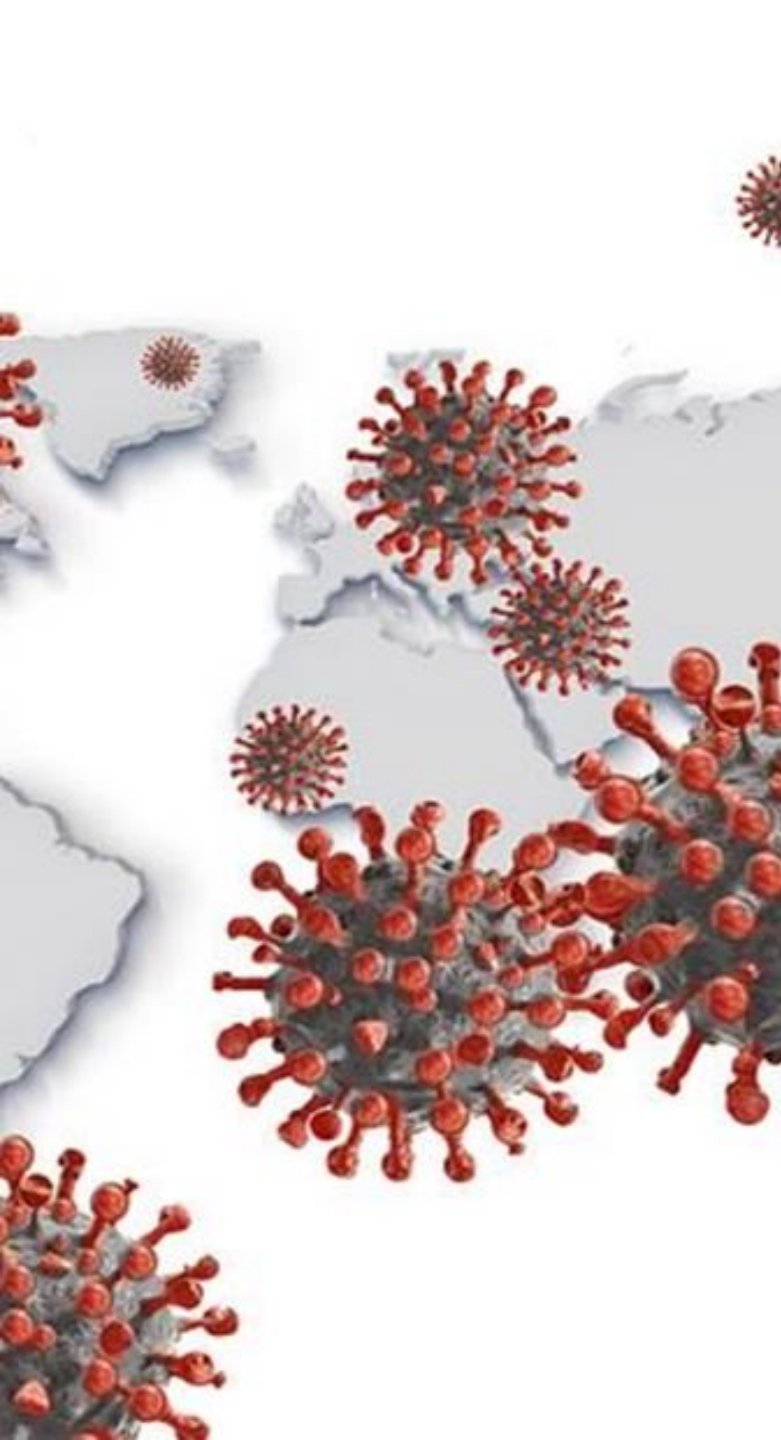
Sally Brown @ProfSallyBrown

s.brown@leedsbeckett.ac.uk

and Kay Sambell @kay_sambell

Kay.sambell@cumbria.ac.uk

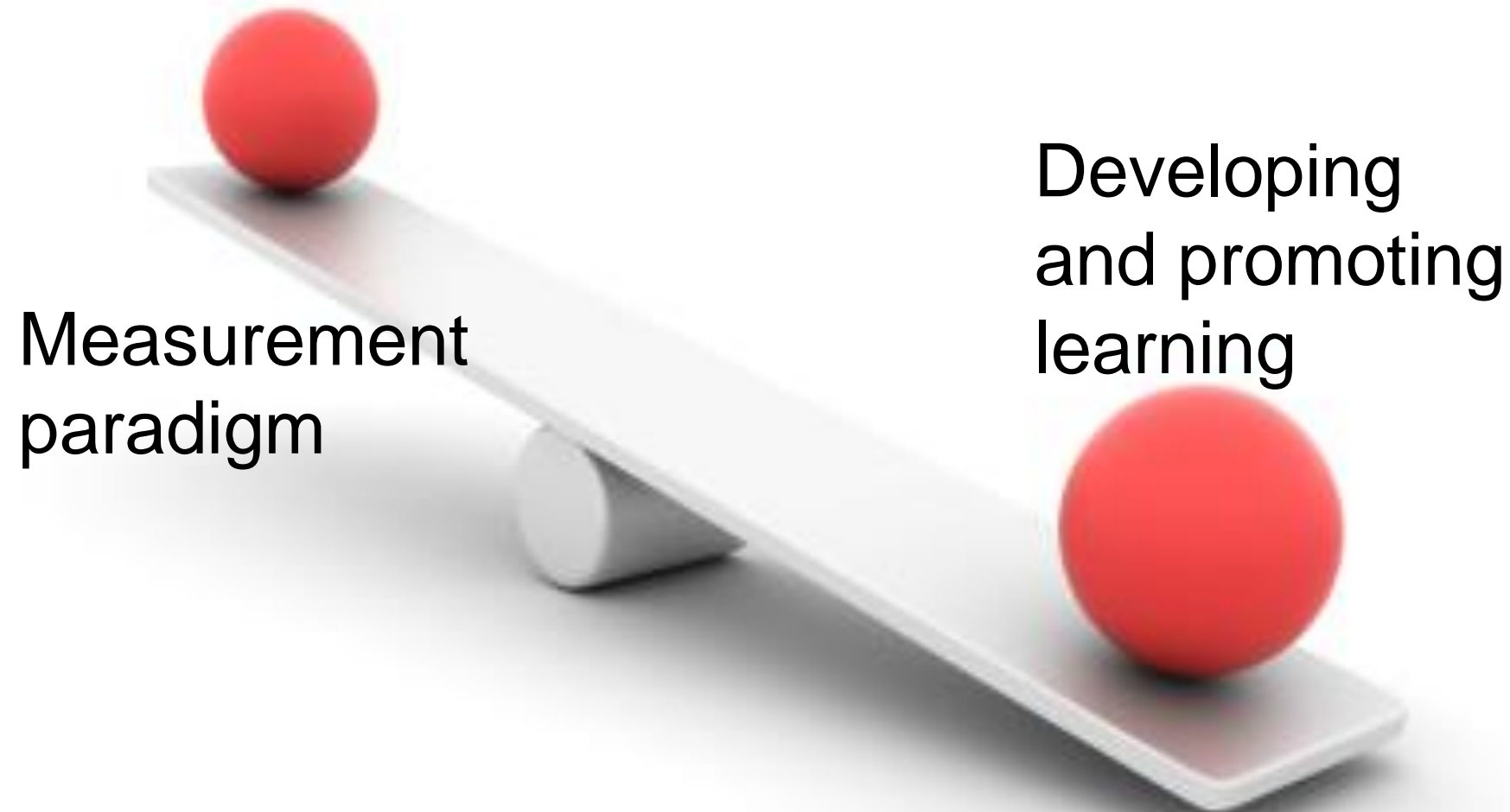




The world changed in Spring 2020 and so did university assessment!

- In Spring 2020, just about every university globally was faced with a requirement to move from a substantial diet of unseen, time-constrained, invigilated **exams** in person to methodologies that could be undertaken remotely.
- The challenges for academics were substantial;
- But now many institutional leaders are recognizing the opportunity to **transform** higher education assessment, with greater awareness of the learning-related benefits of alternatives to traditional exams;
- Our aim was to support this renewed appetite for future assessment designs which improve student engagement and are **fit for purpose in future**, but we also needed to pragmatically prioritize **manageability** of workloads (for staff and students)

AfL: **rethinking** assessment to ensure we strike a better balance

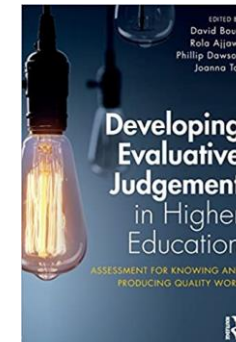
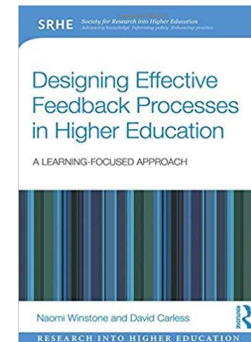
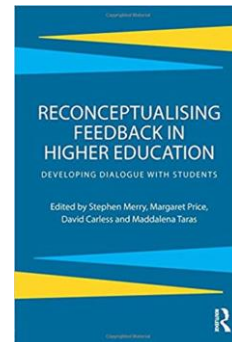
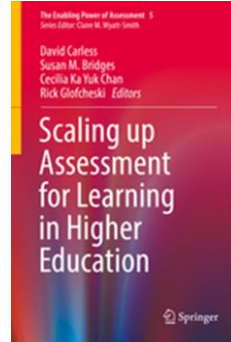
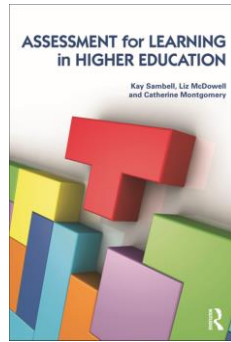


Can we re-engineer
and re-energise future
assessment and
feedback practices,
using Assessment for
Learning (AfL)
approaches to
stimulate

Student Engagement

- Students supported to act as participants/partners in learning, via active involvement in and commitment to study?**
- Student Empowerment**
 - Students supported to exercise increasing levels of control over own learning via self-monitoring and self-regulation?**

Energise & engage by designing more **authentic**, learning-oriented assessment tasks



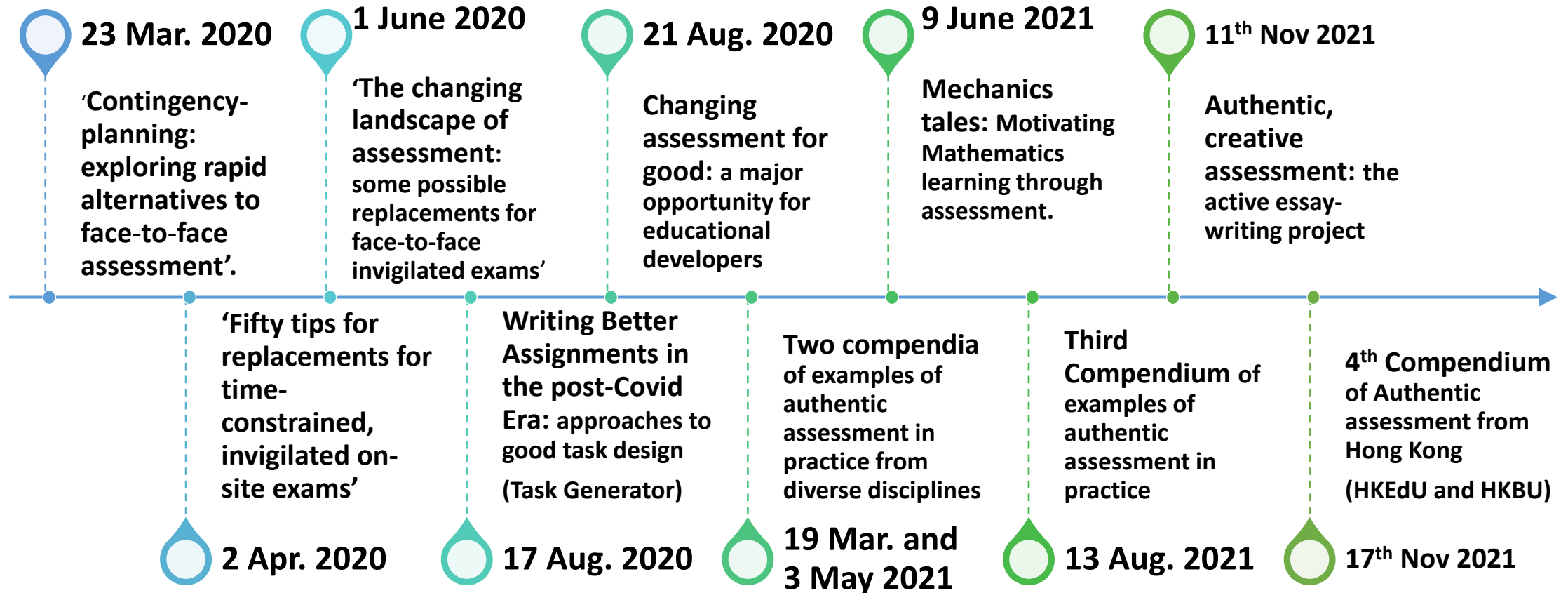
Enable student engagement with **guidance** and **feedback** processes

Empower learners to develop **evaluative expertise** and self-regulation



Our COVID ASSESSMENT COLLECTION TIMELINE

<https://sally-brown.net/kay-sambell-and-sally-brown-covid-19-assessment-collection/>





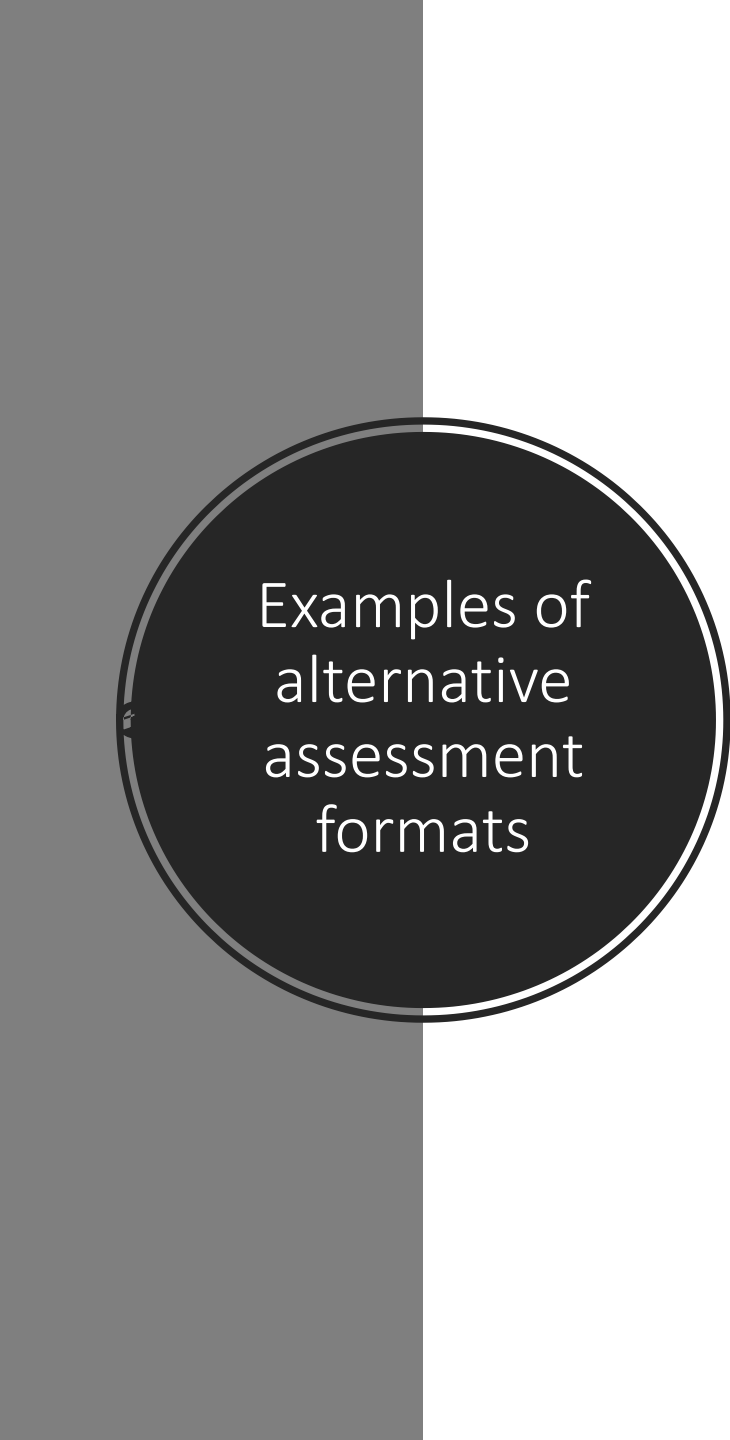
Universities started thinking about changing assessment due to Covid: let's not go back to an over-reliance on traditional exams!

- **The time/place/ duration constraints carry high risks issues etc prevent the traditional exam being taken, and thereby risk business continuity interruption, which would require on-the-hoof mitigations.**
- **Traditional exams lack relevance to students' future lives in employment, entrepreneurship and civil society, since they are not in any meaningful way a valid representation of what work or life challenges typically require.**
- **The range of activities that students are asked to do in a traditional written exam are very limited, writing with a pen individually in silence, with no reference to wider resources.**
- **In employment and wider contexts, however, most will have internet access and a keyboard to work on, as well as the expectation that they will work as team members, often in interdisciplinary settings.**



More diverse exam formats.....

- Open book exams
- Take home exams
- **Sambell & Brown, (2020) 50 Tips for replacements for on-site, time-constrained invigilated exams**
- **Wood, G (2020) Preparing students for open book and take-home exams**
- **Villaroel et al (2020) Using principles of authentic assessment to redesign written examinations and tests**



Examples of
alternative
assessment
formats

In-tray activities

An electronic or hardcopy portfolio

A viva voce or individual oral test

Blogs (Personal or for a professional or commercial organization)

Articles or other types of publications following published format & guidelines

Video/audio recordings/ podcasts

Reflective journals ,logs, critical incident accounts

Rough guides, leaflets and other public documents/outputs for specific audiences

Annotated bibliographies

Creative artefacts e.g. in the arts, engineering, biomechanics

Presentations or Performances (in-class, for employers, for invited audiences, for the public)

See Sambell and Brown, (2020c) for descriptions plus pros and cons of these

Key
question

How can we re-energise
assessment to **boost
authenticity** and
thereby enhance
student engagement?



Lydia Arnold (2019) defined authentic assessment activities as...

- **characterised by realism, cognitive challenge and evaluative judgment**
- **with relevance to self, discipline community or professional community**

Benefits

Arnold 2021

- interesting and rewarding;
- driver for learning
 - motivating students;
 - developing higher order thinking skills;
 - developing a wide range of skills
- opportunities for inclusive practice;
- promote academic integrity;
- link well to real-world challenges
 - (if associated with industry, professions or civic groups)

Sokhanvar et al 2021

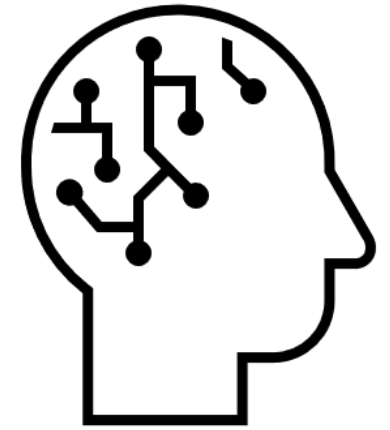
- Enhanced engagement
- Improved satisfaction and contributes to boosting students' effort to reach (complex, high order) educational goals
- Enhanced employability skills



Our aim : create
a pragmatic,
manageable
process for
designing more
learning-
oriented
assessments

OUR 'TASK GENERATOR' WAS DESIGNED TO HARNESS

- ✓ Impact on approaches to **learning**
- ✓ Positive influence on **employability** and **professionalism** (specific or general)
- ✓ Advancing student personhood and **sense of self** (agency, fulfilment, identity, belonging, civic or social contribution, potential change-agent, self-image)



What is the
'worth' of
moving toward
authentic
assessment?

Engagement in **Learning-Oriented**
assessment tasks

Facilitating connections
with knowledge, skills &
attributes of graduate
workplace

Fostering active engagement
with knowledge /uni
scholarship and personal
fulfilment /social
contribution

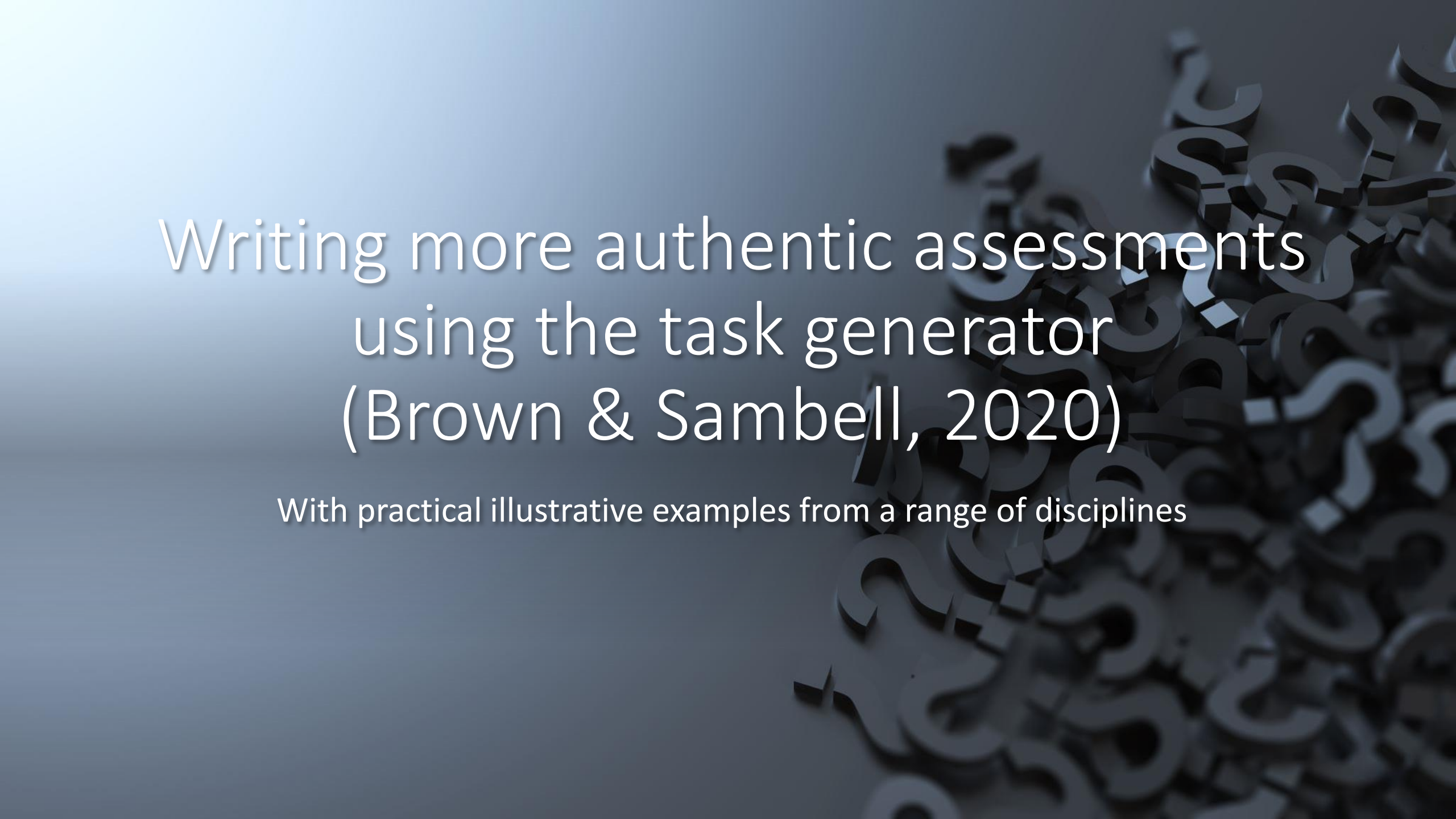


**Learning as
becoming**

Fostering
autonomy &
self-
realisation

**Employability,
Professionalism
& world of work**

**Advancing Selfhood &
Citizenship**

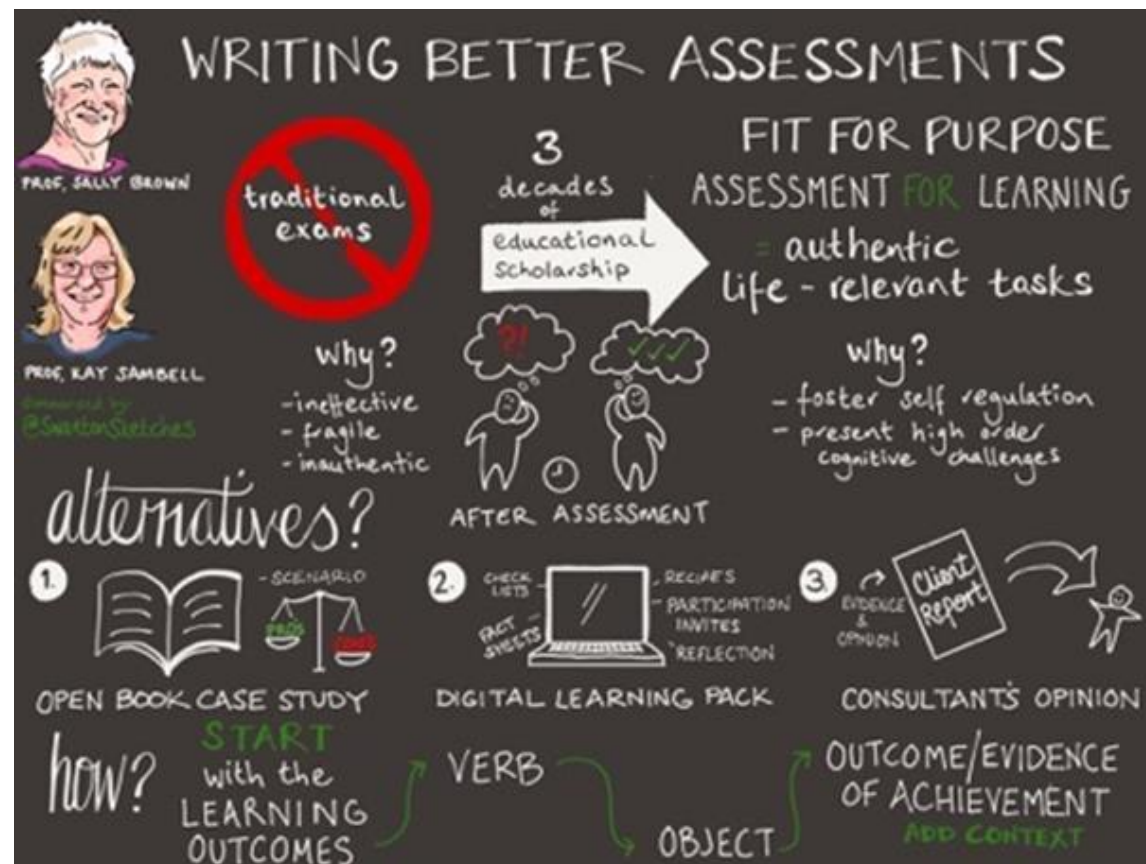


Writing more authentic assessments using the task generator (Brown & Sambell, 2020)

With practical illustrative examples from a range of disciplines

The Task Generator

We initiated our approach in our 17th August paper (summarised here by @SwantonSketches) which argues that by starting with the learning outcomes, looking for the powerful verbs contained therein, supplying the object for the verb, together with an indication of what outcome/ evidence of achievement is needed and wrapping this up within a context and supplying some 'range statements' it's possible to design practical authentic assessments in a way that is manageable and contributes to learning by building self-efficacy.



Verb/ educational outcome	What? i.e. object	Outcome/ evidence of achievement	Modifiers/ developments/ range statements
Interpret	complex and sometimes incomplete or conflicting data	compile a summary meaningful for experts and laypersons	leading to a viable action plan for a team to implement.
Review	data from a variety of sources	produce an executive summary	for a specific audience of employers
Set up	specialised equipment appropriately	draw up a 'quick guide' for peers	to enable them to use it safely and appropriately
Evaluate	three proposed solutions to a problem	propose a further two of your own	with suggestions about what might work best
Compile	contingency plans for a professional environment	produce disaster recovery in case of a serious emergency	leading to mitigations and remediation

Example : Thanks to
Thomas Broderick of
Munster Technological
University in Ireland

Traditional exam/essay question:

“In designing a range of supports at your residential home for persons with a disability, what health initiatives would you propose for the service user in the following areas: physical wellness, social wellness and occupational/vocational wellness?”

Alternative assessment:

Envisage that you are working on placement in a local residential home with persons with disability and considering the impacts of Covid, you have been asked to introduce some new health initiatives to support residents in their overall wellness.

Tasks

1. **Research** what the wellness needs of service-users are and what kinds of health initiatives are most appropriate to support their wellness at this time. **Present** this as a set of up to **ten bullet points**, with a list on one side of A4 of your references (texts, leaflets, websites etc.).
2. **Prepare a plan** to implement **three** health initiatives, one each to support physical, social and occupational/vocational needs of the service user. (One side of A4 for each initiative).
3. **Present in the form of a table** what you think are the principal benefits of the initiatives you are proposing and any problems or pitfalls you could envisage in implementing each of these.
4. **Provide a rationale** for the recommendations you are making written in the form of an **email** for your busy line manager.
5. In your **reflective diary**, comment on what you have most learned from this assignment and note what insights you have developed from undertaking this assignment that you can carry forward into your future working life.





Authentic assessment in Microbiology, based on ideas contributed by Dr Amreen Bashir, School of Biosciences, Aston University

Traditional essay assignment:

What are the key factors leading to poor consumer health in domestic bathrooms caused by contamination? What steps can be taken to improve health through more hygienic practices?

More authentic assessment

Context:

Envisage that you live in a student house with four other students with a downstairs toilet but only one main bathroom that everyone shares upstairs, which also contains a toilet. You are the only microbiologist living in the flat and you are rather concerned at the overall level of hygiene in the flat, particularly the bathroom.

Tasks

1. Read the two set articles on contamination and highlight/ annotate on a hard copy or on screen what you consider to be the key points. Take a photo or a screen shot of your annotated texts and submit the outcome.
2. Prepare a poster as a PowerPoint slide for your shared bathroom, highlighting the key contamination risks for your fellow flatmates in language that is likely to be convincing rather than preachy. You may include images, as well as footnotes with information from the articles (this is a student household after all!).
3. Present your poster to staff/peers in the form of either a live presentation or a 3-minute video recorded on your phone talking through your poster.
4. Write an article of 700 words for the student newspaper for a wide readership indicating the precautions students living together in shared flats should take in the relation to keeping safe from contamination in the bathroom.
5. Write 100-word reflection on what undertaking this set of activities has caused you to consider, and identify what actions this has caused you to make your personal behaviour as a result.



Architectural History:
Thanks to Jemma Bezant of Aberystwyth University for providing the ideas that form the basis of this assignment.

Background

“Buildings are some of the most visual reminders of our past heritage and reflect our social, political and cultural histories. All reflect the people that designed, built, and used these structures. This lifelong learning course enables participants to explore the origins of sample buildings, the people and events that shaped its history and how to record and present those data.”

More authentic example

Context:

An historic Vicarage in a remote Welsh village has recently changed ownership. The property is un-Listed but with many interesting original features such as sash windows and cast-iron external fittings. The property sits inside extensive mature gardens. The new owners want to convert the four-bedroomed dwelling into a premier B&B and have contracted you to provide them with guidance as to the historic significance of the building and its setting, options for extension and development for the business and advice on the statutory regulations for this historic house and its setting.

Tasks

- **Based on the provided recent sales information from the property, produce a site plan for the property and the gardens that surround it.**
- **Using physical and digital data sources from publicly-available records in relation to the house and its environs, provide an A4 sheet of bullet points containing relevant background information about the property, including for example, whether any of the trees in the garden are protected.**
- **Produce a non-expert and illustrated client report to include plans and proposals for the proposed conversion, indicating any key limitations about what can and cannot be done, with reference to local planning laws.**
- **Draft a covering email to the clients providing summary advice.**



Electrical and Electronic
Engineering:
based on ideas provided by
Prof Alistair Sambell,
Huddersfield University

Replaced a **time-constrained unseen exam** on a 2nd year undergraduate module on Communication Systems

*“I wanted them to give students the opportunity to practice the process of formulating a response to an ill-defined problem - **understanding, condensing and presenting** their possible solutions/approaches- and, importantly, to learn explicitly to **discuss their thinking, justify** different options and articulate their **rationales** to a potential client.”*

More authentic example

CONTEXT

In your role as a qualified engineer, you have been asked to produce a **feasibility study** for a dedicated, secure and robust **internal data link** for a **manufacturing company** that operates across **two sites**, separated by a distance of 1 mile.

TASKS

1. Identify the **advantages** and **disadvantages** of **three** quite **different approaches** to the communication link. Summarise these in a short (max 6 slides/3 mins) **Power Point and present** to class in week 5.
2. Using the presentation-feedback, select **one** of your approaches and **design a system for the client**. Prepare a short proposal (max 4 sides) for the company board, to sell them your preferred design. Include
 - a **table** summarising the performance specification based on your mathematical modelling of your system.*
 - a **bullet point guide** to the practical implications of introducing the system, including cost, environmental factors, and future-proofing.
 - a 300 word **response to feedback** on your presentation

ASSESSMENT CAN PROMOTE, SUPPORT & EXTEND FUTURE LEARNING

authentic assessment
TASK GENERATOR
applies to ALL subjects*

- Start with the learning outcomes
- What are the key verbs?
- What are the objects of the verbs?
- What would be the evidence of achievement?
- What is the subject/professional context?
- What are the modifiers/developments?

INSPIRED & ENGAGED

ASSESSMENT FOR LEARNING

enabling & inclusive

tasks students care about

engaging feedback processes

active learning

self-efficacy

AFTER

BEFORE...

Recall & Regurgitate



Over-reliance on timed, unseen examinations?



see <https://bit.ly/3mMAEFP> for full details
We should not revert back!



Anxiety Inducing

formative

summative

References and further resources

Arnold, L. (2019) Unlocking the power of authentic assessment and (2021) Authentic Assessment Top Trumps: see [Assessment – Lydia Arnold \(lydia-arnold.com\)](https://www.lydia-arnold.com)

Ashford-Rowe, K., Herrington, J. and Brown, C., 2014. Establishing the critical elements that determine authentic assessment. *Assessment & Evaluation in Higher Education*, 39(2), pp.205-222.

Brown, S. (2019) 'Using assessment and feedback to empower students and enhance their learning', in Bryan, C. and Clegg, K. (eds) *Innovative Assessment in Higher Education*. 2nd edn. Oxford: Routledge, pp. 50–63.

Brown, S., and Sambell, K. The Covid Assessment Collection, [Kay Sambell and Sally Brown: Covid-19 Assessment Collection - Sally Brown Sally Brown \(sally-brown.net\)](https://www.sally-brown.net)

Davison, G., 2011. Investigating the Relationships Between Authentic Assessment and the Development of Learner Autonomy. Doctoral thesis, Northumbria University.

McArthur, J., 2020. Student involvement in assessment: Involving the whole student in pursuit of social justice and the social good., *RELIEVE* 26(1) 1-16

Sambell, K., McDowell, L. and Montgomery, C., 2013. *Assessment for learning in higher education*. Routledge.

Sokhanvar, Z., Salehi, K. and Sokhanvar, F., 2021. Advantages of authentic assessment for improving the learning experience and employability skills of higher education students: A systematic literature review. *Studies in Educational Evaluation*, 70, p.101030.

Villarroel, V., Bloxham, S., Bruna, D., Bruna, C. and Herrera-Seda, C., 2018. Authentic assessment: Creating a blueprint for course design. *Assessment & Evaluation in Higher Education*, 43(5), pp.840-854.

Villarroel, V., Boud, D., Bloxham, S., Bruna, D. and Bruna, C., 2020. Using principles of authentic assessment to redesign written examinations and tests. *Innovations in Education and Teaching International*, 57(1), pp.38-49.

Wood, G.C. & Gibbs, B. (2020). [COVID-19 Crisis: Transitioning from traditional invigilated exams to 'take-home' exam papers](https://www.sheffield.ac.uk/education/teaching-learning/assessment/assessment-research/assessment-research-reports). Sheffield: University of Sheffield.