**Authentic assessment compendium: Episode Two – the saga continues!**

**Sally Brown and Kay Sambell**

**Introduction**

Following the positive reception of our **compendium of examples of authentic assessment in practice from diverse disciplines within our Covid Assessment Collection posted on March 19th 2021 at** [https://sally-brown.net/kay-sambell-and-sally-brown-covid-19-assessment-collection/](about:blank) we have been gratified to receive some marvellous additional examples of using our approach published on 17th August as **‘Writing better assignments in the Post-Covid19 era: approaches to good task design’ which we present here.**

**This compendium contains:**

1. **Four examples from Sunderland University on Childhood studies**
2. **Four examples from Bangor University on Counselling skills, Clinical Psychology, Haematology and Marine Geoscience**
3. **Three examples from Galway-Mayo Institute of Technology on Biopharmaceutical Science**
4. **Two examples from De Montfort University on Biochemistry and Education**
5. **One example from Huddersfield University on Electrical and Electronic Engineering**
6. **One example from Kay and me from the English Domain**

**These examples are followed by some examples that don’t follow our particular format, but have been sent to us as examples of good authentic assessment practice from Leicester University (Biosciences) Wolverhampton University (Musical Theatre), De Montfort University (Advanced Financial Reporting) and Heriot Watt University (Mathematics).**

**To recap, we contend that creating authentic assessment tasks doesn’t have to be hugely time-consuming or demanding if our approach is followed. To recap, the ‘Six steps** towards designing more authentic assessment’ comprises using six components: **Context, Learning outcomes, Verbs, Object, Outcomes/ Evidence of achievement, Modifiers/ developments a**nd building the assignments round them.

**Rationale**

* Whenever writing assignments, it’s a good idea to start with the **learning outcomes**, and if they are well written, they are likely to contain one or more powerful, driving **verbs** at their centre to direct student effort, such as ‘interpret’, ‘research and review’, ‘set up and calibrate’, ‘evaluate’ and ‘compile’;
* This is then followed by the **object** of the verb i.e. what you do which provides a focus for action, e.g. produce a digital learning pack, or provide a professional opinion in the form of a letter with appendices;
* Next indicate what **outcomes/evidence of achievement** you would need so you could be confident the outcome has been achieved;
* Preface these steps with detail around the **subject or professional context** relevant to the subject area/ discipline/ course to bring the assignment to life;
* Complete it with modifiers/developments/ range statements to guide the students.

**Thanks to everyone who has contributed these and thanks also to the institutional colleagues who collected them for us from the Universities of Sunderland, Bangor, Heriot Watt University, Huddersfield, De Montfort and Leicester. These are presented unedited as provided by the authors/collectors. We’ve also added a couple of examples of our own.**

**Disciplines covered in the compendium include Childhood Studies, Counselling, Clinical Psychology, Haematology, Marine Geoscience, Biopharmaceutical science, Biochemistry, Education, Engineering and English.**

**The additional resources are from the domains of Musical Theatre and Maths.**

**First of all, here are four examples of authentic assessment in Childhood Studies collected by Lindey Cookson of the University of Sunderland:**

**1.1**

**Example provided by Fay Cavagin, Lecturer, University of Sunderland**

BA (Hons) Childhood Studies

Level 5 module: Childhood Health

**Traditional Essay question:**

*Select a contemporary health topic to debate appropriate interventions that could be used for children and young people. Consider the implications for inequality within your chosen topic and the role of partnership working.*

**Authentic Assessment Example:**

You work for Public Health England as part of their health promotion team. A local charity has contacted you as they have been granted some funding to provide support to children in the community with contemporary health issues. They have asked you to select a contemporary health issue that you think is important to target. They want you to produce a multimedia presentation that they can use to train their team who work directly with the children and young people.

They have asked you to:

Create a presentation which either includes a video or voice-over for the charity to use (the information below has been aligned from the learning outcomes of the module):

* Introduce your contemporary topic, linking to debates associated with contemporary health and well-being in relation to children and families.
* Discuss the implications of inequality for children and young people with direct relevance to your chosen topic.
* Apply health models and initiatives, evaluating their use with links to appropriate reading.
* Debate appropriate interventions and how they can be implemented with direct links to your contemporary topic.
* Explore the role of partnership working, considering different professional roles and how effective working can occur between professionals and the children/parents/carers.

**1.2 Example provided by Gayle Blackburn, Senior Lecturer (lead for the Early Childhood Graduate Practitioner Competencies, University of Sunderland).**

BA (Hons) Childhood Studies (with Early Childhood Graduate Practitioner Competencies)

Level 4 module: Child Development: theory into practice

**Traditional Essay question:**

*Select two resources which are used to promote development and learning with young children in an early years setting. Write an essay to examine how these resources are used in settings and their links to theory, policy and practice. Explain and discuss the learning and development strategies which are encouraged through these two resources.*

**Authentic Assessment Example:**

As part of your development as an Early Years graduate practitioner, you are **asked to plan, design, produce** and **implement** two resources to support child development, with a clear rationale to explain how each resource supports young children’s development and learning in relation to current **theory, policy and practice.** For your assessment you will:

* Create two resources and use them in your placement with young children.
* Present your resources to your peers and academic tutor in a small group – explaining the processes involved with the design of your resource, which **learning and development strategies** you **engaged** with during planning, making and implementing these resources. For example, links to EYFS, choice of materials – why?, Are your resources inclusive?, Health and safety considerations, reflection on the implementation, how will you adapt for future use? Did the children engage well with the resources? Could they be used as part of continuous provision?
* Your peers will be encouraged to ask you questions on this to enable you to have a reflective and professional dialogue on your resources and their implementation.

**NB. This assessment can be amended slightly during lockdown when students have difficulties accessing placements. In this case they do not have to implement the resource, but they can still design and create the resources, ‘present’ them to their peers and tutor, and engage in a reflective and professional dialogue.**

The above assessment will address the following learning outcomes:

* Explore a range of strategies designed to support the development of children.
* Examine the interrelationship between theory, policy and practice.
* Engage with learning and development strategies for children and reflect upon own learning during fieldwork visits.
* Design and produce resources for use to support children’s learning and development.

**1.3 Provided by Gayle Blackburn, Senior Lecturer (lead for the Early Childhood Graduate Practitioner Competencies, University of Sunderland).**

BA (Hons) Childhood Studies (with Early Childhood Graduate Practitioner Competencies)

Level 5 module: Observing and Assessing Young Children’s Development

**Traditional Assignment:**

*Produce an essay – “Discuss and evaluate the processes involved when observing and assessing children. Consider the requirements of the EYFS and variety of ways which can be used to record and report these observations and assessments. Evaluate the observation and assessment techniques which could be implemented”.*

**Authentic Assessment Example:** A Portfolio of a Child’s Development and Learning

Part A – produce a Learning Journal (part one of the portfolio).

Watch a series of observational clips of one child (using videos provided on the CANVAS site). Write an observation of the same child in each of the videos and put these into a portfolio (learning journal) of your own design and showing a variety of different types of recording observation methods (one must be a narrative observation). At least 5 observations should be included.

Part B – Written evaluation/ reflection to include as part two in the portfolio.

Using the observations/learning journal from part A, analyse the child’s learning and development in relation to the Early Years Foundation Stage (Development Matters). Identify and discuss possible next steps for the child and suggest a range of experiences/activities that could be offered to enhance their development and learning. You must also justify why you have chosen certain methods of observations, reflect upon whether they were effective, and how this learning journal meets the requirements of the EYFS.

**Learning outcomes to address in this assessment:**

* Demonstrate an understanding of the process of observing a child’s learning and development.
* Demonstrate the ability to analyse observations in relation to child development theory and the EYFS.
* Identify when different techniques should be used to gather data on children’s learning and development.
* Detailed understanding of the way observing and assessing contributes to young children’s development and learning.
* Detailed understanding of the different ways in which young children’s learning and development can be recorded and reported, including the requirements of the EYFS.
* Evaluate the effectiveness of different ways of recording and reporting on young children’s learning and development.

**1.4 Example provided by Gayle Blackburn, Senior Lecturer (lead for the Early Childhood Graduate Practitioner Competencies, University of Sunderland).**

BA (Hons) Childhood Studies (with Early Childhood Graduate Practitioner Competencies)

Level 6 Module: the Foundation Years

**Traditional Essay question:**

*Produce an essay which evaluates strategies used when supporting children’s development from 0-3. Provide a critical discussion of the theoretical approaches which are embedded within an Early Years curriculum and the role of observations and assessments within this curriculum.*

**Authentic Assessment Example:**

* You have been invited to an interview for a lead practitioner role in an Early Years setting. As part of the interview, you are required to deliver a presentation to the interview panel on your own ideas for a new approach/ curriculum to be considered for use in the early years. Your new approach/ curriculum should be informed by research into the needs of young children to best support their learning and development.
* To support your development of this presentation you should consider the title of your curriculum and the age range for which you are developing the curriculum. You must explain the role of observation and assessment, the role of play and practitioners. Ensure you highlight any influences from theories or other curricula/approaches, and also which areas of development the curriculum will support.
* Consider your audience for your presentation – you are presenting to other lead practitioners so ensure your links to theory and relevant literature critiques are at an appropriate level. Show reflective skills within your presentation by acknowledging the benefits and also the limitations of your potential approach/ curriculum.

**Learning outcomes addressed:**

* Critical evaluation of the notion of developmentally appropriate strategies in relation to facilitating children’s development across the foundation years of childhood.3
* Critical exploration of the different theoretical approaches to develop, design and justify an appropriate curriculum for children in the foundation years of childhood.
* Critical reflection and appraisal of techniques of observation and assessment in the foundation stage of childhood.

**Secondly, here are four examples from Bangor University, thanks to Fran Garrad-Cole for collecting them.**

* 1. **Counselling Skills: Fay Short, Bangor University**

**Aims and Learning Outcomes**

Our Counselling Skills module provides Psychology undergraduates with an introduction to the field of counselling and psychotherapy. This module aims to give an insight into the work of a counsellor and an understanding of the therapeutic process, with focus on critical and controversial issues such as boundaries, contracts, and ethical dilemmas. The key learning outcomes on the module are to critically analyse theories in counselling, apply effective communication skills in practice, demonstrate insight into the self, and evaluate the role of supervision in therapy.

Example of a traditional assessment

*How does supervision provide a forum for exploring client cases and reflecting on the self as a therapist? Write a 1000 word essay analysing the suprvision experience in therapy and drawing on your understanding of therapeutic approaches.*

Alternative authentic assessment

An alternative assessment used on our programme is an oral discussion group exam which mirrors the experience of group supervision.

Students form small groups of four at the start of the course, contract within those groups to work together through the semester, and then sit the exam as a group at the end of the course. The small group pretends that they are a supervision group and they discuss a new case study each week. Each case study is delivered as though a practising counsellor has brought a concern about a client case to the group for support and guidance. See below for an example of a case study.

At the end of the semester, the group attend an oral discussion group exam. They are presented with an unseen case study (same style as those used each week) and discuss the case for twenty minutes. The discussion is observed by a tutor who grades their individual contribution. They are assessed on engagement in the discussion (communications skills), knowledge of how theory applies to the case (understanding of counselling), and insight into the self (self-awareness).

This assessment allows the student to actually experience the benefits of supervision, rather than hypothetically considering the role of supervision in counselling. It also provides genuine experience of something that is common to the work of a counsellor (authentic) and developes a range of important transferable skills (e.g. groupwork, managing information live and in the moment, interpersonal skills, etc).

After the oral exam, students are asked to immediately complete and submit a short form reflecting on their performance. This form contains the marking criteria for the assessment on which students grade themselves. Self-grading does not influence the grade given by the examiner, but it provides a point of comparison once grades and feedback is returned. This encourages metacognition by identifying potential blind-spots (what do students think they do well but actually do poorly?).

**Example Case Study**

“My name is Charlie and I’m a therapist working on a voluntary basis in a charitable organization that helps people experiencing mental health difficulties. I work with clients in an office room at the charity headquarters. I have been seeing a client named Jordan for the last six weeks. Jordan was referred to me by a GP following a diagnosis of anxiety.

In the first session, I felt immediate warmth towards Jordan. I think I’m older than Jordan, and our work together reminds me of spending time with my kids. Jordan mentioned that it “felt safe” to be with me and explained that “I know you will take care of me”.

In the last session, Jordan described feeling worried about the future and explained that “everything just feels completely overwhelming”. After reporting recurring nightmares, difficulties eating, and feeling sick every morning, Jordan stated that “I am sure something really bad is going to happen”. Jordan claimed that “everything always goes wrong for me, so I might as well just give up now”. I felt worried about Jordan and asked what “giving up would look like” but Jordan did not answer directly and only replied that “at least it would stop me from worrying all the time.” This happened at the very end of our scheduled time, so I brought the session to a close and reminded Jordan about the time and date of our next session. But I have felt increasingly worried after the session and I am considering telephoning Jordan to check whether everything is okay.”

Discuss how you might respond to Charlie as though this issue is being brought to group supervision. Consider risk, ethics, and the therapeutic relationship in your discussion. You should also explore possible explanations for client and therapist thoughts/feelings/behaviours and consider some potential therapeutic interventions before/during the next session.

* 1. **Aspects of Clinical Psychology**

**Azlina Amir Kassim, Bangor University**

**Aims and Learning Outcomes:**

1. Demonstrate an understanding of the current edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V).
2. Think critically regarding the biological, sociocultural and psychological perspectives of psychopathological disorders, and apply evidence-based knowledge in conceptualising the causes and treatment of these disorders.
3. Demonstrate knowledge and understanding of the major psychopathological disorders and their treatments.

**Traditional essay example (1500 words):**

*Select a mental disorder that is listed in the DSM-V. Discuss and evaluate aetiological models related to the disorder and current treatment approaches.*

**Authentic alternative assessment (1500 words):**

1. Select a mental disorder that we have covered in class and is listed in the DSM-V that you would be interested to do your research on.
2. Rewrite a story/write a case study as it would be if the character you have chosen had that disorder. Your character can be anyone who is famous (dead or alive), or a fictional character (e.g. Cinderella, Wonderwoman, Harry Potter etc), or even a character that you have made up.
3. Your story must incorporate research knowledge based on an extensive review of the literature. This would require you to do some research on the chosen disorder and use the knowledge to guide the direction and plot of your story. Your story would show the **application** of the symptoms, aetiology (causes) and treatment. You would describe the character having the symptoms, you would have the character go through some circumstances or causes (biological/ psychological/ social) that may trigger the disorder, and finally take the character through an appropriate treatment.
4. You are required to show support to the story using citations based on your reading and also demonstrate critical appraisal. You should not use citations within your main story, so to successfully demonstrate research support and further (relevant) information, or critical appraisal, you may narrate the story using different perspectives (dual narrative). Using dual narrative, you will write your assignment in two styles. In one style, you are narrating the story; in the other you are narrating it showing support or evidence from research. Make sure that these two styles are distinct by using different font styles. The word limit includes your story. See below for an example:
5. Example: You are interested in writing on depression. Based on your reading of the literature, you learn that individuals who grew up with a parent who has depression show more depressive symptoms compared to individuals who grew up in a healthy household. You also learn from the literature that there are multiple pathways to an individual suffering from depression when a parent has depression, such as genetic factors, observational learning etc. You also learn from peer reviewed sources that depression and substance abuse are linked. You may have also read about behavioural activation therapy (BAT), which is a suitable therapy for depression.

Here is a fictional example to demonstrate the format for students (all references are fictional):

Life has not been easy for Dumbledore. From a young age, his mother also suffered from depression after an encounter with a *dementor*, and was not always able to provide for him.

*Depression can be caused by hereditary factors (Smith & Chen, 2018). Apart from genetic transmission, observational learning could theoretically explain the development of Dumbledore’s depression as he could have learnt these behaviours from his mother.*

As a teenager, Dumbledore was introduced to cigarettes and drugs. He secretly smokes 2 packets a day …

*Cohen and Donald (2017) reported that people who are depressed also engage in substance abuse, where they may engage in this behaviour to escape from guilt, stating that depression causes substance abuse. Whilst clear links have been established between the two factors (Davey & Price, 2018), a causal factor is yet to be clearly established. While Cohen and Donald (2017) claimed causation, the study included only 11 participants, and did not control for predisposition to substance abuse, thus a causal link is not convincing.*

As Dumbledore lost the magic wand challenge with Potter, he was required to join the Quidditch team as his penalty for losing. Potter’s intention to get Dumbledore out of his tower and on his broom was to change Dumbledore’s unrewarding environment – he wanted Dumbledore to meet other people, win (or lose) a few Quidditch challenges and to make more friends! ...

*This treatment is known as Behavioural Activation Therapy (BAT), based on operant conditioning principles. BAT is based on Lewinsohn’s (1969) theory……*

**2.3 Haematology**

**Dylan Jones, Bangor**

Module learning outcomes:

1. Critically discuss the role of blood products and haemopoietic stem cell transplants as therapeutic interventions.
2. Critically discuss the most frequently used pathology laboratory tests used in haematology and blood transfusion and their diagnostic significance.
3. Critically discuss the types, causes and diagnosis of malignant and non-malignant haematological disease.
4. Critically evaluate the role of molecular diagnostics in haematology.

**Traditional assignment: Essay Exams**

Students were given a choice of 4 essay style questions along the lines of *“Discuss acute myeloid leukaemia”, “Discuss the use of blood transfusion in managing the chronically ill”* etc.

**Alternative assignment**: Patient case studies/Clinical Scenarios

Context: Students are provided with patient case studies which they are expected to explore. These case studies include patient blood test results, clinical history and access to scanned blood slides and students are expected to analyse the findings.

Task:

* Students interpret the findings provided for 2 patients.
* Students offer a diagnosis and justify their diagnosis (~500 words) (L.O 2 and 3).
* Students suggest a number of confirmatory/further diagnostics and justify (~250 words) (L.O 2, 3 and 4).
* Students suggest a treatment plan for the case study including the use of blood products (~250 words) (L.O 1).

**Justification:** Producing a clinical report such as this is a much more authentic application of skills and knowledge gained during the module and also more deeply assess whether a student has “understood” the rationale behind the diagnosis of key diseases.

**2.4 Marine Geoscience**

Example supplied by **Dei Huws** in Ocean Sciences at Bangor University.

This assessment forms part of a ‘Practical Oceanography’ module where students gain experience of conducting marine geophysical surveys offshore. Sessions covering the related theory are covered in other modules, although there are some classroom events that introduce students to the more technical aspects of survey instrumentation.

**Typical traditional Exam/essay question**

*What are the main practical aspects that need to be considered at the planning stage of a geophysical offshore survey for a prospective offshore engineering development?*

**Authentic assessment alternative – Technical Tender Document Exercise**

**Introduction**

The objective of this exercise is to draw-up the technical document that an offshore survey company might submit to a client (e.g. an energy company), in an attempt to be awarded a contract. You take-on the role of the survey company. The technical document would normally comprise part of a wider “tender document” that would also typically include financial and contractual parts. These latter parts do not form part of the assessment exercise.

The invitation to tender has been sent to your company to conduct a site investigation for the most recent round of licensing for Carbon Capture and Storage in the oil and gas fields in Liverpool Bay.

This is loosely based on an actual project.

You will need to complete the task by producing a document of no more than six pages. Before final submission, you need to arrange a meeting will the client’s consultant, myself, Dr R. O’Gant.

**The client’s goals**

The client has two main goals:

1. To assess the evidence for any present-day gas seepage at the seafloor. They (the client) are initially thinking that the contractor will aim to map any seafloor manifestation of leaking gas, and any shallow migration pathways for such gas e.g. shallow faulting, or near seafloor manifestation of deeper-rooted faults. They’ve specified what they think would be needed; but don’t be afraid to suggest other methods or datasets, if anything springs to mind.
2. To define a new pipeline route, in term of hydrodynamic, sedimentological, geophysical and geotechnical characteristics.

**The survey area**

Co-ordinates of the vertices of the main survey area are given in the European datum 1950 (ED50) on the International Spheroid of 1924. You’ll need to change them to WGS84 if you want to use Google Earth to show them as a kml file. Instruction on how to format a kml file is readily available on the web – discuss with Dr R O’Gant if required. The TatukGIS Free Coordinate Calculator is recommended for datum transformation.

**Specific requirements of the client**

Over the main site, the client has stated that they want data for:

1. Seafloor bathymetry (at 1 metre, or better, grid resolution)
2. Seafloor backscatter information
3. Any area where rock outcrops on the seafloor
4. The detailed mapping of any identified gas-seepage zone (<= 0.5 m grid size)
5. The position, dimensions and grain size of sediment bedforms
6. The sub-seabed stratigraphy down to a depth of 100 m below seafloor

There is also a new pipeline planned as part of the project – the coordinates of which are given.

Over the pipeline corridor, the client wants to know:

1. Bathymetry for the pipeline corridor
2. Tidal current direction and flow rate at 1m above the bed and 1 m below sea surface for different states of tide for three positions along the corridor
3. The position and nature of any seafloor hazard
4. The area where rock outcrops on the seafloor
5. The position, dimensions and grain size of sediment bedforms
6. The likelihood of active sediment transport in the area (migrating bedforms)
7. The seasonal wave climate
8. The sub-seabed stratigraphy down to a depth of 10 m below seafloor
9. The shear strength and, for sands, the relative density of the sub-seafloor material down to 3 m.

The client wants you to also specify:

1. Anything currently known about seafloor sediment types.
2. What sort of instruments you would plan to use and why. Specify make and model of all instruments. You will need to include geophysical, geotechnical and positioning systems and specify the TRS (mapping datum) to be used.
3. What sort of survey vessel(s) would you use?
4. Which harbour would you work out of? (and any practical limitations associated with that, if relevant).
5. Detailed survey line plans.
6. A brief outline of the data analysis and interpretation techniques (specifying the software you intend to use).
7. The timing programme of the data acquisition, processing and interpretation phases in the form of a GAANT chart. The client will not be awarding the project until 1st June, 2021 and requires the data in report form by 30th August 2021 (that’s not your deadline for this assessment, it’s a fictitious one for the survey in terms of working to the suitable tides etc!).

**Meeting with the client’s consultant**

You should arrange to meet me, Dr R O’Gant, for an interview-style consultant meeting before submitting your work. You could be questioned on any of the above aspects. Interviews will be formal and last no more than 15 minutes. This is effectively a slightly out of the ordinary feedback meeting!

You will not be expected to calculate potential costs, but the best plans will achieve the client’s aims in the most frugal way, i.e. do not employ techniques unnecessarily.

**Thirdly from Trish O’Connell of GMIT in Ireland are two examples from the Biopharmaceutical Science domain.**

**3.1 Traditional exam question to be replaced:**

*Explain what is meant by Process Capability. In your answer describe in detail what prerequisite should exist prior to conducting a PCA study. How might this prerequisite be achieved?*

**Replaced by:**

**Context:**

For a specific cell culture, a Bioreactor temperature is specified to maintain a nominal temperature of 50 degrees. For this culture to grow successfully it is imperative that the bioreactor temperature be no lower than a specified 45 degrees and no higher thana specified 55 degrees.

**Tasks:**

Task 1. Analyse the accompanying dataset to determine the nature of the data.

Task 2. Identify the optimal method of assessing the stability of the data from this process.

Task 3. Interpret the stability using the method you have identified in Task 2.

Task 4. Conduct a Process Capability Analysis on the process depending on the outcome of Task 3, or alternatively explain why you could not.

Task 5. Summarise your findings, paying particular attention to recommending corrective action should this be required.

**3.2 Example of an authentic cross-discipline project created for Year 3 Biopharmaceutical Science students**

**Context:**

Drawing on your studies and practical lab work in Microbiology identify a specific process that you have performed and conduct a Failure Mode & Effect (FMEA) study on this process.

Task 1. Identify a microbiological process ensuring it has a clear and specific Start & End points.

Task 2. Create a process map of the identified process using correct Flow charting symbols.

Task 3. Research and design a process FMEA template.

Task 4. Input the process steps into the template and brainstorm potential failure modes for each step identified.

Task 5. Calculate the RPN values by rating the Severity, Occurrence & Detection likelihoods.

Task 6. Beginning with the highest RPN value generated use your knowledge of the process to suggest mitigation strategies for the potential failure modes.

Task 7. Repeat & re-evaluate the RPN values for the mitigations identified.

**Fourthly here are two examples submitted by Jo Rushworth of De Montfort University.**

**4.1** This is an example of a real “capstudy” assessment, designed by NTF Dr Jo Rushworth and colleagues at De Montfort University (see: A novel “capstudy” assessment for bioscience students based on the principles of Universal Design for Learning (UDL).” **Rushworth JV,**Lawson G, Desai, UJ, Juma N and Moriarty A (2020) in: Pratt Adams, Simon, Uwe Richter, and Mark Warnes. *Innovations In Active Learning In Higher Education.*   
E-book, Falmer, UK: University of Sussex Library, 2020, [https://doi.org/10.20919/9781912319961](https://eur02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoi.org%2F10.20919%2F9781912319961&data=04%7C01%7CS.Brown%40leedsbeckett.ac.uk%7C0b4c3b8b0bad4c5363ef08d8fdbcf167%7Cd79a81124fbe417aa112cd0fb490d85c%7C0%7C1%7C637538335252724132%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=6E0j8qxWbcH35P5xAc5%2BuxKl8oEtooemho9%2FA8PrPKQ%3D&reserved=0)).

**Biochemistry: Traditional exam question:**

1. *Describe how paracetamol and caffeine overdose could be detected in the clinical biochemistry laboratory; (b) analyse the data provided and determine whether the patient has had an overdose of either.*

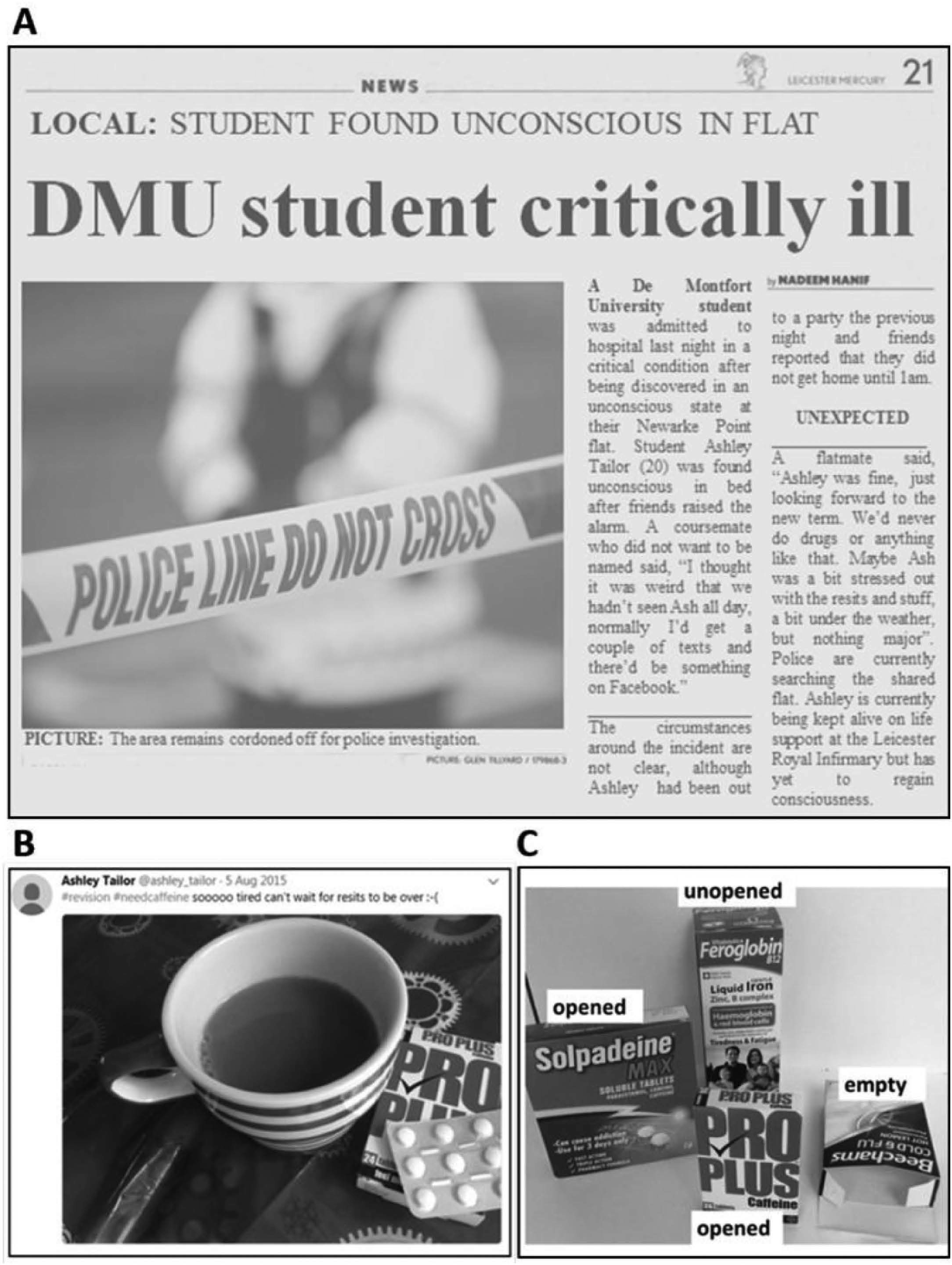
**Authentic assessment example: A** **“capstudy”** – this is an end-of-unit assessment which pulls together the practical and theoretical content from over the course of the module or unit. Its name combines a case-study with capstone assessment and is based on providing students with an authentic, UDL-friendly, problem-based assessment.

**The scenario: “What happened to Ashley Tailor”?**

**Information provided to students:**Name: Ashley Tailor | D.O.B.: 27.03.95 | Height: 171 cm | Weight: 73 kg

*(note: the fake student’s gender and ethnicity are ambiguous in line with UDL)*

Students have access to a fake Twitter account @ashley\_tailor, which contains a mixture of real clues and red herrings, as well as Ashley’s bin contents and this fake newspaper article:



Each lecturer also provides a problem-based learning (PBL) clue for analysis, which might turn out to be useful or may be a red herring. Examples included Ashley’s blood glucose reading, genetic sequencing to look for mutations that might cause sudden cardiac death syndrome, and histopathology and immunofluorescence microscopy images of Ashley’s liver cells. These relate to the learning outcomes of the module.

The students are trained during the lab practicals to carry out analytical techniques (e.g. GC, HPLC, UV-vis spectroscopy), to analyse data, perform calculations and to write a lab report.

**The capstudy assessment:**

At the end of the module, the students work in small groups to solve the problem of “what happened to Ashley Tailor”; they have a scheduled dry-lab practical in which to complete a report.

* Piece together and critically analyse all of the clues so far and submit an initial hypothesis and request for clinical data at the lab door *(20% of the marks).*
* Use the clinical data provided in lab (even if your hypothesis is incorrect, you will be provided with clinical data) to complete a written report which should contain data analysis, conclusions and diagnosis *(80% of the marks).*
  1. **Education / PGCE**

This is an adapted version of a real, novel assessment called a PASTA that was designed by NTF Dr Jo Rushworth at De Montfort University.

**Traditional essay question (3,000 words):**

*Write an essay on the current challenges and solutions for teaching today’s students, with reference to the literature and in the context of your subject discipline.*

**Authentic assessment assignment:**

**Task: record a Patchwork Screencast Assessment (PASTA)**

A PASTA is a reflective screencast in which you should explain and evidence your developmental journey as a teacher throughout the first module of the PGCE. You need to demonstrate how you have engaged with theory, literature and best practice to provide innovation and excellence in the learning and teaching, assessment and feedback and support of your students. You should reference the literature and you must provide evidence to illustrate your journey, describing how you have developed as a teacher and highlighting areas for further development. Refer to the marking scheme to ensure that you evidence the required learning outcomes.

**You might wish to include:**   
Quotes, diagrams, photographs, metrics, graphs/infographics, survey results (including in-class polls) teaching videos (with consent of participants), interviews or transcripts with colleagues or students.

**How to make and serve your PASTA:**

Throughout the course, you will be given weekly or fortnightly homework tasks for reflection. These will ask you to consider theory and literature in the context of your own practice, to reflect on and develop your practice, to observe and be observed etc. These will provide the key ingredients for you to then blend and serve your PASTA – which should be a reflective, personal and honest journey of your development as a teacher, which places in context how you have utilised learning theory and pedagogic research.

The submission format is flexible in line with universal design for learning (UDL); the only stipulation is that there should be some audio narration and some visuals. The balance of text to speech is up to you. Written prose is not required but is allowed. Many people choose to utilise Panopto for this task, but this is not mandatory. The maximum length is 15 minutes (+/- 10%).

**Notes:**

The PASTA is transferrable to other disciplines and is especially useful where students are required to evidence development in some sort of practice along with engagement with theory/literature. The flexible submission format is in line with UDL.  
Contact jo.rushworth@dmu.ac.uk for further details.

1. **Fifthly, from Huddersfield University, here is an example from Engineering Education from Alistair Sambell, from the domain of Electrical and Electronic Engineering**

**Context:** This is a second-year electronic engineering undergraduate module on Communication Systems. Traditionally assessed by unseen examination, moved to course work tasks.

**Module Learning Outcomes**

By the end of the module you will be able to:

1. Appraise the common communication technologies, identifying key performance features.

2. Analyse the performance of common analogue and digital communications systems.

3. Design a simple communication system for a practical situation, defining the required sub-systems and evaluating applicable technologies.

**Scenario**

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.

1. Devise a question list that will form the basis for the system specification. In other words, what information will you need to know to allow you to design a system? This should include technical parameters such as the type and quantity of data, number of users, mobility and security requirements, alongside practical considerations such the physical environment it will operate in, expected system lifecycle and cost. Your list should be compiled as a simple A4 table of questions, and you may wish to add options for the answers where appropriate. These questions will form the basis for a class discussion in which we will agree the detailed design brief. [Formative peer review activity]

2. Based on the design brief we have agreed in class, identify the advantages and disadvantages of three quite different approaches to the communication link (for example analogue and digital, wired and wireless). You should produce a short (maximum 6 slides) power point report that summarises your analysis. You may also want to highlight any areas in which you think the design brief is incomplete or contradictory. You will have three minutes to present these to the class. [30%, including tutor and peer review]

3. Following your presentation and class discussion, select one of the approaches you have identified and design a system for the company. You should use a mathematical modelling package (e.g. Matlab) to analyse and verify the key performance parameters, including the expected reliability of the link. You should consider practical implication such as cost and environmental impact. You should present your work in the form of a short (4 pages of A4 maximum) report written for the company board. The report should demonstrate why you have selected your preferred design, the anticipated performance based on your modelling, and the practical aspects of introducing the system for the company. [70%]

1. **Sixthly here is a fictionalised example from the domain of English (which both Kay and I studied). This is based on an example I heard about some years ago, but I cannot attribute the source due to it being lost in the mists of time!**

**Traditional essay**

*Select three novels from the A E471 Contemporary Fiction module and outline the shared themes and approaches of authors from diverse cultures, together with broader diverges in their approaches, writing styles.*

**Alternative authentic assessment**

You are doing a voluntary placement in a recently-reopened post-pandemic independent bookshop which is very keen to build on an established loyal customer base who tend to be mainly older women educated to A level or beyond, but who are also keen to foster new audiences from the local community of younger readers. Select at least two novels you have studied on the A E471 Contemporary Fiction module plus another post 1970s novel of your own choice and produce the following outputs:

1. **Reader notes for each of the novels** that can be produced as 20cm X 5 cm bookmarks that can be placed on displays of these books and popped into bags at the till for any books purchased. It is your choice whether to make these landmark or portrait, how much detail to include and what font and font size you use, and what to include in the text.
2. **A 200-word rationale** for the choices you made in producing the Reader notes.
3. **A 500-word outline for the bookshop newsletter aimed at** **the** **newer target audience** in which you synthesize the key connecting themes of the chosen books in an accessible format and explain why the novels can speak to readers under 30.
4. **An 800-word blog for the bookshop website** in which you write from a personal perspective about why you value these three texts and what they mean to you.
5. **A poster for the window display for one of the books** (presented as a PowerPoint slide) in which you include at least three positive quotes from critics about the text to raise reader interest. Your poster should include at least one image.
6. **Briefing notes for the host of a bookshop live event** by one of your authors containing brief biographical details and up to eight questions the host could ask the author. If your author you choose is not alive, for the sake of this assignment, you can ignore this fact!

**Finally, we have received some great examples in** **a slightly different format that don’t fit our model but are included here because we think they are interesting!**

1. **Three activities in the Biosciences provided by NTF Chris Willmott of Leicester University. Two he advises are formal publications, the third is on the NTR**

**Willmott CJR (2020)** The POSTnote Assignment: Preparing a scientific report to Government as an authentic alternative to essay writing  
[https://figshare.edgehill.ac.uk/articles/report/The\_POSTnote\_AssignmentCC\_docx/12826526](https://eur02.safelinks.protection.outlook.com/?url=https%3A%2F%2Ffigshare.edgehill.ac.uk%2Farticles%2Freport%2FThe_POSTnote_AssignmentCC_docx%2F12826526&data=04%7C01%7CS.Brown%40leedsbeckett.ac.uk%7C9a786aaab85a4248f98808d90e6753db%7Cd79a81124fbe417aa112cd0fb490d85c%7C0%7C1%7C637556659252901971%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=Vh1BEKvv6txVMg%2FsT7yZAJqdrPVQHIVAbDDxU9rsaqo%3D&reserved=0)

**Willmott CJR (2015)** Teaching bioethics via the production of student-generated videos Journal of Biological Education 49:127-138 [https://doi.org/10.1080/00219266.2014.897640](https://eur02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoi.org%2F10.1080%2F00219266.2014.897640&data=04%7C01%7CS.Brown%40leedsbeckett.ac.uk%7C9a786aaab85a4248f98808d90e6753db%7Cd79a81124fbe417aa112cd0fb490d85c%7C0%7C1%7C637556659252911981%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=EmZBEUKxRJ%2BgDFL9h50fpzLsMyA1Xtb7NzerRjzGMzs%3D&reserved=0)

**Willmott C (2013)** Headline Bioethics: Engagement with bioethics in the news Bioscience Education 21:3-6 [https://doi.org/10.11120/beej.2013.00017](https://eur02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoi.org%2F10.11120%2Fbeej.2013.00017&data=04%7C01%7CS.Brown%40leedsbeckett.ac.uk%7C9a786aaab85a4248f98808d90e6753db%7Cd79a81124fbe417aa112cd0fb490d85c%7C0%7C1%7C637556659252911981%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=E8EwP7%2BGNz21t8ED%2F%2F%2B4hpX4cqU5YVJTp5TsBP7r%2FIY%3D&reserved=0)

1. **We received from Sarah Browne of the University of Wolverhampton this example of a great authentic assessment designed to replace an entirely practical assignment during Covid times:**

This is an assignment for second year BA (Hons) Musical Theatre students. The module (Musical Theatre Repertoire: Intermediate) is usually an entirely practical module and students undertake a series of practical workshops exploring techniques that were used in the creation of the 1967 musical, *Hair.*These techniques are trust-based games and similar contact improvisation techniques. Needless to say, none of this was possible despite Covid security measures. Whilst students were able to participate in socially-distanced ensemble performances, we modified one of the performance assessments to incorporate a solo response using social media. The module was delivered in the form of blended learning and online sessions focused on five relevant topics, covering both the 1967 context of the original production and the contemporary era: race, war/death, climate change, gender, sexuality.

**Learning outcomes:**

* LO1 Demonstrate knowledge and understanding of forms, practices, traditions, texts, theories and histories of musical theatre in their cultural, historical and contemporary contexts.
* LO2 Engage with, participate in, and perform musical theatre in a range of contexts.
* LO3 Understand the interplay between practice and theory, and between dance, drama and music, and be able to use those understandings in a dynamic, ethical and enterprising way.

The solo performance element of the assessment was reimagined as follows:

“The Musical Hair always reflects the contemporary age in which the production is set. In the original Broadway production (1968) it dealt directly with contemporary issues: the Civil Rights movement, gender inequality, drug usage, the environment, sexual freedom and the Vietnam war. In the 2015 Hope Mill revival, the same issues remain but the production used the context of Trump’s presidency as it’s source of performative rebellion.

In 2020, the world faces the same issues and concerns: gender inequality, the Black Lives Matter movement, drug addiction, climate change and pollution. The population now faces an opponent deadlier than the Vietnam war: a global pandemic.

Your performance will reflect the contemporary era in which we live.

SOLO PERFORMANCE: “You must choose one solo song from *Hair* focusing on any of the topics studied, and record the vocals and visuals in a format reflective of the era e.g. using social media as a stimulus. You will be marked on vocal performance and the creative approach adopted.”

We received submissions which used TikTok, Instagram, YouTube, WhatsApp and other similar platforms as the mode of communication (Donald Trump and Betty Friedan in the same WhatsApp group was amusing!) Student achievement surpassed previous years.

1. **Here is an example from the field of Advanced Financial reporting sent to us by Lisa Wakefield of De Montfort University**

**Assignment Brief**

Prepare a transcript and record a five-minute podcast to discuss the following issues:

*Coronavirus is not just a world health emergency; it is an economic one too. The economic impacts are plain to see and emergency provisions are being made worldwide in an attempt to support individuals, business and anyone who advises them.*

[https://www.icaew.com/coronavirus](about:blank)

**Requirement**

Select one area of financial accounting which you consider has been impacted by the COVID-19 pandemic – this could be but is not limited to impairments, valuations, fair value accounting, going concern, foreign currency stability or government grants. Explain why they there is an impact to the accounting.

**Assessment Learning Outcomes**

Following completion of this assignment students should be able to/have:

* Consider the financial reporting standards applicable to reporting the results of individual and business combinations.
* Evaluate the current developments to the financial reporting framework and the implications of those developments.
* Critically review financial reporting standards in issue and evaluate the associated commercial issues.
* The ability to apply appropriate skills to filter, analyse and evaluate data and draw reasoned conclusions and made appropriate recommendations.
* The ability to learn independently and self-manage learning needs.
* The ability to communicate in a manner appropriate to the intended audience.

**Assessment Transferrable Skills**

This assessment has been developed to ensure students have the ability to:

* synthesis large volumes of information to develop a cohesive argument for or against a specific accounting treatment.
* follow guidance and comply with regulations.
* work within a set timeframe to respond to a given task.
* present information without an overreliance on visual support.

*As a module team we recognise that for some of you the COVID 19 impact has been higher than for others. If you don’t feel that you can write about this subject as it would impact you adversely – please pick a different economic crisis and email the module leader (*[*lwakefield@dmu.ac.uk*](about:blank)*) to confirm which crisis you have selected then answer the assignment requirement on that crisis.*

1. **And here is an example from Thomas Wong of Heriot Watt University of an interesting assessment in Maths:**

**Instructions**: The focus of this tutorial is to develop your mathematical writing skills.

* Work through the question until you have an answer you are satisfied with.
* Write up a complete solution to the answer you obtained, just like a written assignment. Your tutor will provide feedback on your solution.

**Question:** Texas hold’em is a popular variety of poker played across the world. As with most card games, there is a wealth of probability in involved. In this tutorial, we will compute a few probabilities by making use of our knowledge of combinatorics and the sample space. Before we begin, a few key points to know about Texas hold’em:

* It uses a standard deck of 52 cards consisting of 13 different ranks (A being the highest down to 2 being the smallest). The four suits are equivalent, and no suit is larger than the others.
* For each hand, each player is dealt two hole-cards which only that player sees and nobody else knows.
* Five communal cards are then dealt face up for everyone to see.
* Each player uses their two hole-cards and the ve communal cards to form the best five card hand.
* The rank of each hand is shown in the picture on the reverse side of this tutorial sheet (Source: WSOP website).
* The winner of the hand is the one with the highest rank five card hand. When comparing two flushes, the one with the highest ranked card wins.

In this scenario, you are playing heads-up (two-player) Texas hold’em. Your hole cards are 8♣, J♣. The five communal cards are

9♣, 5♣, 4♣, 5♥, A♥

What is the probability of you winning this hand against your opponent?

Hint: There are a few things you might want to think about if you get stuck:

* What is the sample space in this context?
* How many different sets of hole cards can your opponent have?
* What is the best hand you can form with your two hole-cards and the five communal cards?
* Which five card hands can beat your best hand?
* For each rank, calculate the number of ways your opponent can have hole cards to form hands of that rank. This might require a case-by-case analysis.
* The probability of you winning is the complement of the probability of you not winning. Is there any chance for a tie?

**Extension:** We have the same set up. The difference this time, you are holding 8♣, J♦ while the communal cards are

6♣, 5♣, 4♣, 3♣, 3♥

What is your probability of winning this hand against a single opponent? How does that probability change if there are two opponents? (you hand must beat them both)

**Reference:** Poker hands in decreasing rank: Royal flush being the highest down to High Card being the lower.

