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About the Authors

Joe Kent-Waters

I am a second-year Theatre and Performance student from Huddersfield. Outside of university I act, do stand-up comedy and make theatre with performance collective HalliGalli. I am also interested in community arts and in 2018/19 I will be doing an industry placement with Inkwell Arts, a Leeds-based arts and mental-health charity.

When I found out about this project through my school’s opportunities bulletin I was keen to get involved. This is because I think re-considering assessment in Higher Education is an incredibly important task. Too many times throughout my education career I have seen gifted, talented and intelligent peers fail to achieve the marks they are capable of. There is a largely unchallenged status quo of assessment and as a result I have seen these peers blame themselves for this failure when I think we should be questioning the systems of assessment in place. Boud suggests that “we fear to change the system because of the risks” (Boud: 2007: 5), and it is encouraging to see projects like RUALSE trying to tackle this issue.

As a BA Theatre and Performance student, I have had a different experience of assessment to my colleagues. I have always benefited from more alternative forms of assessment. I think this is because my main skills – creativity and performance – are not assessable by traditional methods, such as essays and coursework. While the inclusion of practical assessments is a great feature of arts courses, and something I am personally thankful for, in my research over the course of the project I have identified issues with this method and have been able to find potential solutions.


Oliva Seago

I have just finished my second year studying Chemistry at the University of Leeds. Originally from Lowestoft, Suffolk, I was drawn to studying here by the University’s friendly atmosphere and strong academic reputation. I was excited by working on this project to learn more about how assessment in Higher Education can vary from that in secondary education, away from the familiarity of exams and coursework.

It was interesting to discover a diverse range of assessment methods currently in use, as we found the majority of modules researched, particularly across the science subjects, to be dominated by written exams. I hope our work
will help expand the use of varied assessment methods, as I feel this is important to assess different key skills graduates need for their future careers.

Lydia Smith

I am a Chemistry graduate seeking a valuable and rewarding career path. I enjoy working in a team environment and learning how my research can make an impact. I am also a passionate advocate of multidisciplinary work. Outside academia, I am a keen hockey player, pianist, violinist and I love to travel.

This project primarily appealed to me as I wanted to discover what new assessment techniques were used at university and was especially interested to see how other universities assessed their Chemistry students. All the interns agreed that we never considered assessment methods before applying to university, and this project has made us realise how perhaps it was worth looking at the different assessment methods used.

Being involved in a project such as this has energised my interest in education and has given me an opportunity to meet new people and engage in teamwork as well as independent work. This opportunity has also given me an advantage over those also applying for roles in education next year. I am pleased with what we have created and hope it will prove very useful in the future.

Samantha Pugh (Editor)

I am a National Teaching Fellow and an Associate Professor in STEM Education at the University of Leeds. I have extensive experience in developing context-based learning and working in partnership with students in the Physical Sciences. I also mentor colleagues to shape teaching through pedagogic research and scholarship at Leeds and beyond.

In 2017/18, I undertook a ‘Leeds Excellence and Innovation Fellowship’ sabbatical at the Leeds Institute for Teaching Excellence (LITE). My institutional project was ‘Re-imagining Assessment in Higher Education by learning from Secondary Education.’ I believe that synoptic, programme-level assessment is the key to enhancing the career prospects of university graduates. I hope that the opportunity to work with Joe, Lydia and Olivia on this compendium will provide colleagues with alternative assessment methods to consider in their programme design. The added benefit of this book is that it is written from a student perspective.
Introduction

Many degree programmes are dominated by largely traditional assessment methods, such as unseen written examinations and essays. The aim of this book is to bring together a wide range of assessment techniques that could be used instead. Throughout this book, each assessment technique is considered in turn, focusing on what they assess, in terms of what students know, think and do as a result of their learning. We have tried to consider both subject specific and generic attributes that are demonstrated by students when undertaking these assessments.

There are many excellent publications that document different assessment methods that can be employed in Higher Education. However, the unique aspect of this publication is that it has been written by students; presenting their perspectives on each of the assessment techniques. They have considered what their experience would be like – the positive and negative aspects of the experience, and also provided a personal opinion.

This compendium is one of the outputs from the institutional project, Rethinking University Assessment by Learning from Secondary Education (RUALSE). The aim of this project is to take a more synoptic, programme view of university assessment, particularly as secondary education has moved towards linear A-level courses, rather than the previous modular system. In taking a programme-level view of assessment, course designers can be more creative, allowing a wider range of assessment techniques to be employed across a programme.

The approach taken in compiling this compendium was to consider current assessment techniques that are employed in the discipline areas that were part of the study. These were Biology, Chemical Engineering, Chemistry, Education, and Theatre and Performance. The team of student interns drew upon their own experiences, and further research, to review each of these assessment methods, focusing on skills assessed and advantages and disadvantages from teaching delivery and student experience perspectives, as well as providing opinions from their experiences as students. The next step was to research the methods of assessment being used for the five subjects at other universities. The authors chose to look first at other universities in the UK, focussing on the Russell Group, so the methods found could be comparable to those at Leeds, in terms of teaching and learning experience. Subsequently, the search was extended to the top 50 QS World University Rankings by Subject, looking for alternative assessment methods in the study subjects, at institutions not yet researched.

There is scope to expand this collection of assessment techniques by covering a wider range of disciplines, or by considering a wider range of institutions. We hope that you will find this compilation helpful in your quest to diversify assessment within degree programmes.

The authors wish to thank Leeds Institute for Teaching Excellence (LITE) at the University of Leeds for supporting this project.
Abstracts of Guest Lectures

Specific to the module containing the guest lecture.

Description:
A guest lecturer, often from industry, a different academic or an influential figure from a relevant field, is invited to present material to students in a timetabled lecture slot. Students then write a short summary of the material taught. The assignment could be extended by asking students for their opinions of the material taught, any further questions raised, or to perform their own research into the topic.

Where is this assessment method currently used?
Department of Chemistry, University of Warwick

What does it assess?
• a student’s understanding of the taught material
• their ability to engage with the subject
• think critically
• perform relevant research

Benefits from a teaching perspective:
The usual lecturer has a break from lecturing, whilst students get to experience a different aspect of their subject. Material from guest lecturers is often difficult to include in a written examination, so by writing about the guest lectures, students’ engagement can be assessed.

Disadvantages from a teaching perspective:
Any guest lecturer will provide a slightly different outlook on the topic being taught. There could be issues regarding overlap with the usual lecture material, for example the material may have already been taught to the students, or the students could be unfamiliar with terminology being used. It can be difficult to organise a guest lecture, and there is often no guarantee that the students will find it beneficial.

Positive aspects from a student’s perspective:
Having a guest lecture can be exciting as it makes a change from the usual lecture series and often provides a new outlook into a topic, which may make it easier or more enjoyable. As a result, writing a summary of the lecture can be both interesting and useful. If the lecturer is from industry, their lecture can provide more general careers information rather than pure subject material, which can be particularly useful for students looking for careers outside of academia.

Negative aspects from a student’s perspective:
Students may feel material from guest lecturers is irrelevant to the rest of the lecture series, so may feel writing a summary of the lecture and performing further research into the topic
is a waste of their time – especially if the module is mostly assessed by an examination, as material from guest lectures tends not to be examinable. Students may struggle to understand the material taught if the lecturer is unsure of the level at which the students are working, or uses unfamiliar terminology.

**Students’ opinions on this choice of assessment technique:**
I find guest lecturers to be interesting as you know you will be getting a different learning experience to a normal lecture, whether it is immediately relevant to the module or wider employability skills. But, because it can be difficult for those organising the guest lectures to monitor exactly what will be taught, sometimes the material can seem irrelevant.
Assessed Workshop

Generally module specific, as workshops tend to focus on material taught recently.

Description:
Workshops are typically more interactive versions of lectures, in which a lecturer presents questions to students who are encouraged to work in groups to learn how to tackle problems and ensure they understand the material being taught. In an assessed workshop, students attempt the set problems, either individually or in discussion with others, and the marks contribute towards their grade.

Where is this assessment method currently used?
Department of Chemistry, University of York

What does it assess?
- students’ knowledge and understanding of the material taught
- problem solving ability
- both written and oral communication skills, and
- students’ ability to ask relevant questions when working in a group to further their learning

Benefits from a teaching perspective:
By attending a workshop, a student proves they truly understand the material being taught as they are able to apply it to solve problems, and have the opportunity to ask questions if they are unsure. Assessing performance in a workshop ensures student attendance so their learning potential is maximised.

Disadvantages from a teaching perspective:
A suitable workshop can be difficult to arrange, as the set problems must be challenging enough to warrant credit for completion, but must still be possible without weeks of dedicated revision of the subject. If communication between students is allowed during an assessed workshop, it can be difficult to monitor how much independent work each individual has contributed to their answers.

Positive aspects from a student’s perspective:
During a workshop students are usually allowed to discuss their answers, so they can learn from their peers – this means they gain a better subject understanding without having to ask a lecturer, which can be intimidating. Students gain practice attempting examination-style questions before the exam, so they are better prepared in the future. A workshop usually focuses on material taught recently, so it should be fresh in students’ minds without the need for dedicated revision beforehand.
Negative aspects from a student’s perspective:
Despite the problems focusing on material taught recently, students may still feel unprepared for an assessment if they have not had time to revise. Whilst workshops generally provide the opportunity to solidify any learning, students may worry about an assessed workshop if they do not feel confident in their understanding of the topics beforehand.

Students’ opinions on this choice of assessment technique:
I think workshops are very useful for confirming your knowledge of a particular topic, and having the opportunity to attempt exam-style questions relieves some future exam stress as you have some idea of what to expect from the written paper. The idea of an assessed workshop, however, is intimidating as the grading aspect removes the freedom to learn through your mistakes.
Audio / Visual Podcast

This is a module-specific assessment method.

Description:
Several students record themselves using a microphone / camera having a non-formal conversation about a topic.

Where is this assessment method currently used?
School of Education, Durham University

What does it assess?
- shows that students can relate knowledge to real-world issues
- think criticality about education policy and practice
- be critically aware of learners and their place in society
- whether the student is able to engage with issues and construct arguments
- working collaboratively
- articulating themselves orally

Benefits from a teaching perspective:
Tutors can see how students engage with intellectual material in a less formal environment. Tutors can get a sense of students’ non-formal opinions rather than the objectivity of formal academic work.

Disadvantages from a teaching perspective:
It is a less scholarly approach. Technology can be unpredictable and errors that are out of students’ control might affect the quality of the work.

Positive aspects from a student’s perspective:
It creates a less pressured environment which allows students to make errors and edit them out later. It equips students with a wider variety of skills which increases employability.

Negative aspects from a student’s perspective:
No guarantee that students will make equal contributions to the discussion. More confident students will be more outspoken.

Students’ opinions on this choice of assessment technique:
I think this is a more relaxed way of demonstrating knowledge, which I think would definitely suit some students. Furthermore it equips students with the skills to make podcasts which is a useful skill for those with more entrepreneurial ambitions.
Case Study

This is a module-specific assessment method.

Description:
This is where a student will research their own applied example of a subject or topic and use it to answer wider questions – this can be in the form of an exam or coursework.

Where is this assessment method currently used?
School of Education, University of Leeds

What does it assess?
- whether the candidate has a base knowledge of concepts and issues in their subject
- can relate their knowledge to real world issues
- if the student can think critically
- if students are able to engage with issues and construct arguments
- if they are able to articulate ideas orally and in writing in a convincing way

Benefits from a teaching perspective:
Tutors can see how well the student has been able to apply their knowledge to real-world scenarios. It also creates a wide variety of responses, can see how each student has taken on the task differently and chosen a case study which reflects their own interests. Tutors can feel as if they are equipping students rather than just transferring knowledge.

Disadvantages from a teaching perspective:
If the details of the study are not conveyed effectively then the tutor might struggle to understand aspects of the work. It will also be more difficult to compare student work for moderation purposes.

Positive aspects from a student’s perspective:
Students can research something which is of personal interest. Applying knowledge to a real-life case study can be a rewarding way to work as students feel as if knowledge is being used in a more pragmatic fashion. Case-study exams are open book, meaning students have to worry less about memorising knowledge.

Negative aspects from a student’s perspective:
Some case studies will be more effective than others, this means there is a lot of pressure around the initial choice. If a poor case study is chosen the overall work could suffer.

Students’ opinions on this choice of assessment technique:
I think it allows the student to be more personal with what they study, which is always a good thing. I think it is also a rewarding learning experience to be able to apply knowledge
to a real-life scenario, especially when a subject is more vocational. The open-book aspect is great as it takes away the pressure of memorising and can allow you to develop more critical and analytical skills as opposed to just memorising.
Collaborative Wiki / Blogs

This is a module-specific assessment method.

Description:
This is where students work together to create an extensive webpage containing information on a topic.

Where is this assessment method currently used?
School of Education, University of Exeter

What does it assess?
- the student’s ability to work with knowledge and think critically.
- their ability to work in groups
- collectively demonstrate their understanding of the subject

Benefits from a teaching perspective:
It demonstrates comprehensive knowledge of a subject. Students are creating learning resources themselves. Opportunity to have a learning ‘environment’ outside of the seminar / lecture space.

Disadvantages from a teaching perspective:
Not easy to check for plagiarism as it cannot be uploaded to Turnitin. Some wiki formats do not allow you to see who wrote which entry, making it hard to separate group and individual marks.

Positive aspects from a student’s perspective:
Students develop skills in collaborative working methods and basic website creation, two very valuable attributes on the job market. Students have their own learning resource for future reference once the assessment is complete.

Negative aspects from a student’s perspective:
Student’s grade might suffer if someone in the group does not submit their contribution.

Students’ opinions on this choice of assessment technique:
This is a great idea to bring collaborative writing forward into a modern context, however your individual contributions might go uncredited. Building a learning resource with your peers is also an invaluable experience.
Continuous Assessment (Seminars)

This is a module-specific assessment method.

Description:
In this assessment student’s are marked on their contributions to seminars throughout the module.

Where is this assessment method currently used?
Drama Department, The University of Exeter

What does it assess?
- intercultural understanding
- the ability to interpret a text or a situation
- that the student is politically aware and can think critically
- the student’s ability to question accepted knowledge and be a deep thinker
- the ability to communicate orally
- ability to work critically with knowledge

Benefits from a teaching perspective:
Student can be assessed on how well they have engaged in the module as opposed to how well they perform on a certain day. Less of a formal environment so tutors might be able to get more insights from students who struggle with written work and presentations.
Students create a dialogue rather than the one voice of an essay or presentation

Disadvantages from a teaching perspective:
Tutors have to be constantly assessing their students, this means it is harder to keep marks consistent. It relies heavily on students having done the preparation before the seminar.

Positive aspects from a student’s perspective:
Students can articulate their understanding of a topic in a less formal environment, although this may work better for some students and not others. Can create a dialogue which means students can work from one another’s ideas rather than being solitary.

Negative aspects from a student’s perspective:
Requires student to do the preparation before the seminar on a weekly basis. If each seminar is assessed, this could increase stress levels. Students who are not as confident in their own ideas might struggle to make a contribution that reflects their thinking on a topic.

Students’ opinions on this choice of assessment technique:
I think a seminar is often a place to get things wrong and learn from that, if the marking scheme accommodated this factor then assessing students on their engagement in a topic
rather than the accuracy of what they say then this would be a good assessment method. However, although seminars are a part of most students’ university experience, some do not flourish in a discussion environment – especially those who lack confidence or those with certain learning disabilities.
Continuous Assessment (Studio Based)

This is a module-specific assessment method.

Description:
This is where a student will be marked on the tutor’s observation of the process as opposed to the final creative product (Editor’s note: This approach would also be feasible for a laboratory-based module).

Where is this assessment method currently used?
Drama Department, The University of Exeter.

What does it assess?
- the student’s creativity
- ability to understand human interaction through artistic work
- whether a student can collaborate (although the project could be a solo one)
- dealing with conflict and work out practicalities
- the students’ ability to make something happen / be enterprising.
- critical thinking and independence

Benefits from a teaching perspective:
Students can be assessed on how well they have engaged in the module as opposed to how well they perform on a certain day. Tutors can be getting constant insight into how a student works and the intentions behind their creative decisions

Disadvantages from a teaching perspective:
It is hard to judge fairly, especially with group work, as the tutor only has one perspective. Perhaps there is less clear criteria for the marking process due to creative interpretation.

Positive aspects from a student’s perspective:
Less pressure when it comes to the final performance which is better for mental health. The amount of work that you put into creating the piece is perhaps better recognised.

Negative aspects from a student’s perspective:
There is a risk that certain work could go unrecognised as the tutor cannot be present at all times and often work is done in self-directed sessions. Perhaps if the opposite effect happened and a chaotic process produced an outstanding piece, students could feel that their work is not being credited.
Students’ opinions on this choice of assessment technique:
I think marking the process is an effective way of trying to tackle the issue of art’s subjectivity. However I think an effort needs to be made by the tutor to observe this process, otherwise their restricted view on the process might not equate to the truth. Portfolios and log books can help record and give evidence to support the tutor’s marking.
Data Analysis

Currently module specific, but could be synoptic by application of the data-analysis skills.

Description:
Data analysis involves processing large amounts of raw data so it can be understood and used efficiently. This involves a variety of statistical techniques, such as data aggregation, pattern matching, and tabulation. This can be achieved using computer programmes such as Excel and Python. The analysed data is usually presented in a report explaining how it has been processed and what the results show.

Where is this assessment method currently used?
School of Chemistry and School of Biology, University of Leeds

What does it assess?
- numerical literacy
- presentation of analysed data demonstrates written and / or oral presentation skills
- critical thinking
- practical skills through use of software,
- problem solving
- creativity
- the ability to be reflective

Benefits from a teaching perspective:
Students learn essential skills for the modern workplace, be it in academic research or in industry. Little traditional teaching is required, as skills are best developed through practice.

Disadvantages from a teaching perspective:
If students struggle with data analysis, one-on-one help may be required, which could mean high staff demand. Staff must be familiar with the programmes used. Marking may be difficult and time consuming because the processed data must be checked against the raw data for discontinuity.

Positive aspects from a student’s perspective:
Students will learn essential transferable skills and gain an appreciation for the value of analysed data in explaining concepts and results. Students may also enjoy getting experience using software to achieve results so they can put theory into practice.

Negative aspects from a student’s perspective:
Working with large amounts of raw data may be intimidating, and it could take a long time to become familiar with the software used to process it. Analysis of the data and reporting results can be time consuming.
Students’ opinions on this choice of assessment technique:
I think it is important to become familiar with data processing software as it forms a part of so many jobs. The idea of working with large amounts of raw data is scary so it would be helpful to get to learn how to do this to a standard suitable for assessment.
Data Visualisation Exercise

This is a module specific assessment method.

**Description:**
An assessment which asks you the students to take qualitative data and present it in an appropriate and effective way.

**Where is this assessment method currently used?**
School of Education, The University of Bristol

**What does it assess?**
- the specific skill of data visualisation but ties into evaluating whether a student can take an interdisciplinary approach
- whether a student is able to be reflective and independent

**Benefits from a teaching perspective:**
Tutors can see clearly and objectively how well students have been able to use their data-handling skills

**Disadvantages from a teaching perspective:**
It would be difficult to apply this to all education courses as data analysis is not a common skill within the subject area. The process of checking the visualisation’s accuracy would take up a lot of marking time.

**Positive aspects from a student’s perspective:**
Students can get practice and feedback to help develop a skill which is highly relevant for employability. It would benefit student who like visual representations, as opposed to creating a written data analysis report.

**Negative aspects from a student’s perspective:**
None reported

**Students’ opinions on this choice of assessment technique:**
I think this is a good way to test the skill of data analysis, especially for those who work better visually. However, as a wider assessment method it would not work as it is specific to the topic.
Debate

Often module specific, as the debate must focus on a specific topic.

**Description:**
In teams, students must research and prepare an argument to defend a particular viewpoint on a controversial subject. Each member of the team prepares their own short presentation, which builds upon their teammates’ points to produce a cohesive argument. Teams will be subjected to questioning from groups with opposing ideas, and must remain respectful and focused whilst defending their assigned viewpoint.

**Where is this assessment method currently used?**
School of Chemistry, University of Manchester.

**What does it assess?**
- ability to research for relevant material
- thinking creatively to construct a persuasive argument
- presentation skills
- oral communication skills
- subject knowledge and understanding
- critical thinking
- ability to work in a team

**Benefits from a teaching perspective:**
Students’ research skills are developed in finding relevant and persuasive points, as well as their critical thinking skills – they must consider potential oppositional viewpoints whilst preparing their initial presentations, as well as being able to think quickly when questioned during the debate. Both presentation and oral communication skills, individually and as part of a group, are assessed as the debate proceeds.

**Disadvantages from a teaching perspective:**
A debate can be a time-consuming procedure, as teams must be limited in size. The debate must be chaired, and each person’s contribution to their team presentations as well as defence against opposition must be recorded to allow for fair assessment. A debate is only suitable for use when discussing a controversial topic.

**Positive aspects from a student’s perspective:**
Students are encouraged to develop their own opinions on a topic through research and discussion with other students. While presentations can be daunting, some of the pressure is relieved when presenting as part of a group to a small audience of peers.
Negative aspects from a student’s perspective:
A debate can be an unfamiliar and intimidating prospect, and less confident students may struggle to get involved after their initial presentation. Preparing for a debate is time consuming and students may lack motivation if asked to research and defend a viewpoint that contradicts their own.

Students’ opinions on this choice of assessment technique:
A debate would be a great method of engaging with the topic and encouraging active learning, but the thought of creating counter-arguments on the spot during the debate could be intimidating – especially if you know your attempts are being assessed.
Dissertation (STEM Discipline)

In this case, module specific but can be more synoptic.

Description:
In this case, a 3,000 word essay on a chosen topic, guided by a supervisor who specialises in a similar field to the topic of the essay.

Where is this assessment method currently used?
School of Chemistry, University of Leeds

What does it assess?
- written communication
- research skills
- persuasive skills
- ability to understand and appreciate different points of view
- critical and lateral thinking
- report writing skills
- independent learning
- perhaps developing a hypothesis

Benefits from a teaching perspective:
See an insight into how deep knowledge and understanding is. Able to assess many different skills. Not much teaching required, a brief given, then a supervisor just there to guide the work.

Disadvantages from a teaching perspective:
A long read. No opportunity to ask further questions like in a presentation for example. Time taken to prepare briefs. Requires double-blind marking for quality-assurance purposes.

Positive aspects from a student’s perspective:
Topic usually is chosen by the student, so interesting to research and write about. Flexibility on where the student would like to take the research. Student has a good opportunity to show their interest in a particular topic and this can help career development. No need to memorise lots of facts.

Negative aspects from a student’s perspective:
Time consuming. The supervision of a dissertation can be inconsistent. Some supervisors are willing to help students a lot more than others, which can make it unfair. Marks may vary according to which supervisor marks the work. Some students may share the same opinion as a supervisor, which may put them in a more advantageous position than a fellow student, even if both students’ essays are at the same level.
Students’ opinions on this choice of assessment technique:
Good that students get to choose their own research topic. It would be nice if it could be arranged to speak to students in previous years about how they found certain supervisors as they can be inconsistent with how much they assist you.
Essay

In this case, module specific but could be synoptic.

Description:
A short piece of writing on a particular subject.

Where is this assessment method currently used?
Schools of Biology, Chemistry, Education, Performance and Cultural Industries, University of Leeds

What does it assess?

- knowledge and understanding of a particular topic, often an in-depth one
- written communication
- experience with primary research
- ability to work with literature
- understand and appreciate others’ view and come to a conclusion based on data collected
- independent working
- persuasive skills
- understanding of how the research process works
- ability to engage with issues and construct arguments
- ability to reference

Benefits from a teaching perspective:
Effective way to gauge depth of understanding and knowledge of student.

Disadvantages from a teaching perspective:
Takes time to devote to reading students’ responses. No opportunity to ask further questions, as in a presentation for example.

Positive aspects from a student’s perspective:
If the time is managed well, this can cause less stress than an exam. Opportunity to show understanding and knowledge, as well as originality in the way in which the student thinks.

Negative aspects from a student’s perspective:
Marks may vary according to which supervisor marks the work. Very time consuming. Some students may share the same opinion as a supervisor which may put them in a more advantageous position than a fellow student, even if both students’ essays are at the same level.
Students’ opinions on this choice of assessment technique:
Personally I do not perform well in essays. I find writing so much a very boring and difficult process. Although, I recognise those skills are needed and that I should improve. If planned far enough in advance by the student, this assessment method can result in great performance.
Extended Matching Items (EMI)

In this case, module specific but could be synoptic.

**Description:**
Type of examination, in which students answer questions by selecting options from a list given. A type of MCQ, except there are multiple questions with the same set of possible answers.

**Where is this assessment method currently used?**
School of Biological Sciences, University of Liverpool.

**What does it assess?**
Knowledge and understanding of certain topics. Being able to reproduce information given in lectures and be able to apply the knowledge in unseen situations. Problem solving. Attention to detail, numerical literacy.

**Benefits from a teaching perspective:**
Relatively quick to mark questions and give feedback to students, often marked by a computer. Exams marked fairly and consistently. Teachers can tell the level of understanding of a certain topic fairly easily this way.

**Disadvantages from a teaching perspective:**
Can be difficult and time consuming to write; incorrect answers must be provided as well as correct ones, but they cannot be too obviously wrong.

**Positive aspects from a student’s perspective:**
Each student is marked according to a scheme and so marked fairly and consistently. No plagiarism and little cheating occurring. Students can help each other learn and understand up to the exam itself, thus building good relationships. If students perform well in exams, this can be a big confidence boost. Pressure of exams can push a student to excel. Students may feel there is less pressure to memorise facts, as seeing the correct answer provided (albeit amongst similar incorrect answers) could act as a prompt. It can be reassuring to be able to answer every question, even if it’s by guessing.

**Negative aspects from a student’s perspective:**
Very stressful, relies on a few hours excellent performance, which can put pressure on students causing them to underperform even if they have the capability to achieve a high grade. There is very little opportunity for students to demonstrate their knowledge outside of the specified answers: for example, no credit can be given for using the correct method, but obtaining an incorrect answer for a mathematical problem.
Students’ opinions on this choice of assessment technique:
I have found all types of multiple choice questions to be quite challenging. I don’t think they are a fair way to assess a whole module as there is so little flexibility, but could be good for assessing understanding of concepts for partial module credit.
Fieldwork

In this case, module specific but could be synoptic.

Description:
Work done outside the normal university setting, usually collecting data from the environment studied. A report is then written on students’ experience, their data collected and analysed.

Where is this assessment method currently used?
School of Biology, Universities of Bristol, Durham, Glasgow, Leeds, Liverpool, Queen Mary, Southampton.

What does it assess?
- students’ understanding of scientific concepts
- numerical literacy
- written communication skills
- ability to analyse data
- note-taking skills
- problem solving skills
- appreciation of health and safety in the environment they find themselves in

Benefits from a teaching perspective:
Teachers can tell the level of understanding of a certain topic fairly easily this way. Exciting to teach in a new setting.

Disadvantages from a teaching perspective:
Time taken from timetable may infringe on teaching hours. Time consuming to mark all the reports.

Positive aspects from a student’s perspective:
Each student is marked according to a scheme and so marked fairly and consistently. May be exciting to do work that is not in the usual setting, often in the countryside and, as such, relaxing. Students have the time to collect a good set of data before interpretation. Realistic learning experience.

Negative aspects from a student’s perspective:
May not be marked consistently if different supervisors mark the work. Could cost hundreds of pounds if abroad.
Students’ opinions on this choice of assessment technique:
This is a good way for biologists to see in the real world what collecting data is about and the application of the theory taught in lectures can be brought to life. A completely different way to assess things and keep them interesting. Overall an effective way to assess many skills.
Group Portfolio

In this case, module specific but could be synoptic.

Description:
In this instance, was a 40-60 page business plan for a product we designed, bringing several individuals’ work and compiling them together to make one cohesive, single-purpose document.

Where is this assessment method currently used?
School of Chemistry, University of Leeds

What does it assess?
- knowledge and understanding of the product designed
- written communication skills
- teamwork and
- organisational skills
- research skills
- thinking critically and laterally
- persuasive skills

Benefits from a teaching perspective:
See an insight into how deep knowledge and understanding is. Catch a glimpse of how well the team worked together. Not much teaching required, just need to provide a briefing and then keep students on track.

Disadvantages from a teaching perspective:
Portfolios are a long read. Hard to tell how much each team member contributed to the document, which could skew individuals’ marks.

Positive aspects from a student’s perspective:
A lot of time given to group in order to accomplish the work, so it’s an opportunity to create the very best work possible. Opportunity to work with others. Researching something that your group has chosen so should be interesting. Students marked on several different sections making the overall grade likely to be fair.

Negative aspects from a student’s perspective:
Team members not pulling their weight can cause issues. It can take time to adapt different people’s work to make it sound like it was written by one person. Meeting up with team members if they’re from a different course could prove difficult. (Editor’s note: Several mechanisms for assigning individual contributions to the group effort. Web PA is one such system).
Students’ opinions on this choice of assessment technique:
I think this is an effective method for assessing and a great way to accomplish group work. However, along with any group work there needs to be some sort of measure of contribution of each team member.
Group Presentation (Mixed Mode)

Presentations are usually twice a semester for PCI students in first and second year, so in this sense they work across modules to help build up these skills. However, the assessments are very much contained within the module.

Description:
These are similar to group presentations however they can contain more of a performative element. Some students might create something more interactive or include a demonstration of practice.

Where is this assessment method currently used?
School of Performance and Cultural Industries, University of Leeds

What does it assess?
- creativity
- ability to collaborate
- critical thinking
- ability to lead, contribute to a team and take on different roles as required by the task
- adaptability
- ability to communicate orally and in written forms
- ability to work critically with knowledge

Benefits from a teaching perspective:
Tutors can evaluate the students understanding when practical elements are used within the presentation. It presents a different kind of skill and demonstrates a more embodied kind of analysis. It means that the students have more license to be original and imaginative with the way they present information

Disadvantages from a teaching perspective:
There is a risk that students might not strike the balance between practice and theory, meaning that even if a student displays skill in the demonstration if it is not contextualised sufficiently then it cannot be rewarded.

Positive aspects from a student’s perspective:
Can be a much more engaging task when practice is involved, gives the student less restriction on how they can express their learning. PCI often uses presentations as an assessment method, so having a slightly different approach can keep the programme from feeling too repetitive.

Negative aspects from a student’s perspective:
None reported.
Students’ opinions on this choice of assessment technique:
Mixed mode presentations make a lot of sense in Theatre and Performance, there are aspects to the subject which can be most effectively communicated through practice. However, I think this should be encouraged in all presentations in PCI as an option, when it is more explicitly included in the brief the final result can feel more forced, rather than a more organic expression of knowledge and research.
Group Presentation

In this case module specific but can be synoptic.

Description:
A speech or talk in which information is conveyed to (an)other individual(s) by a group of people.

Where is this assessment method currently used?

What does it assess?
- knowledge and understanding of a particular topic
- verbal comminication
- research skills
- thinking critically and laterally
- appreciating different points of view and persuasive skills (depending on the nature of the presentation)

Benefits from a teaching perspective:
Interesting to observe and assess. There often an opportunity to ask questions to get in more in-depth idea of the knowledge and understanding the student has. Shows communication skills of student and teamwork skills.

Disadvantages from a teaching perspective:
Potentially time consuming. Time taken for students to choose nature of presentation.

Positive aspects from a student’s perspective:
Presentational skills are usually essential for going into a chemistry profession and so gives good experience. Get the chance to convey points across to academics, more impactful than writing. Enjoyable. Potentially an easier route to attaining good marks. Chance to work with others and build relationships.

Negative aspects from a student’s perspective:
Perhaps a lot of pressure on those who are shy, however after a few presentations this should improve. Can be stressful, especially if any team members do not pull their weight and therefore get credit for others' work.

Students’ opinions on this choice of assessment technique:
Gives you great experience for industry work. Ensures thorough, in-depth knowledge and understanding of a topic due to the opportunity for the supervisor to ask any questions. Nice to work in groups, however if people don't pull their weight it starts to become problematic.
HAZOP

Currently module specific, but can be used as a synoptic method of assessing skills learnt over a long period of time, such as group work and organisational skills.

Description:
A Hazard and Operability (HAZOP) study is a type of risk-assessment procedure commonly used in the engineering industry to identify potentially risk-causing problems at a planned or existing plant. It assumes risks are caused by deviations from design, and uses “guide words” agreed by the team performing the assessment to identify these deviations. Data is collected from the site, then the system divided into parts and analysed. The report of the study follows a conventional structure, consisting of sections including aims, description of the facility, team members and guide words used, plant overview, and analysis of main findings.

Where is this assessment method currently used?
School of Chemical Engineering and Analytical Science, University of Manchester

What does it assess?
- understanding of the procedure involved in the study
- the ability to follow a conventional report structure.
- written communication skills are used to produce the report
- oral communication skills are developed when working in a group to perform the study
- students’ ability to reflect upon their work,
- thinking critically and creatively to identify and solve problems

Benefits from a teaching perspective:
Students gain experience with real-life industrial procedures and so are better prepared for graduate roles in industry. Meanwhile, the skills developed can be applied to their work at university. Students are encouraged to think critically and imaginatively, whilst organising their work both in progress and in the final report.

Disadvantages from a teaching perspective:
An industrial HAZOP can be a highly time-consuming activity, and the process may have to be adapted to be suitable for undergraduate students. The report can be time consuming to mark, and students may need to be supervised on-site, requiring staff to be available to visit.

Positive aspects from a student’s perspective:
Students get to experience many aspects of working in industry, including working in a team, writing reports, and performing an on-site study – this opportunity can be exciting as it gives an insight into life after university. By following the conventional HAZOP structure
when writing the report, students learn how to write to a brief and HAZOPs in the future.

**Negative aspects from a student’s perspective:**
A HAZOP is very time consuming and must follow a strict structure. It can be difficult to organise as a group of students as each member needs to adhere to their role within the group. It may be frustrating for students if some members of the group are not putting in as much effort as others, which could be difficult to demonstrate in the final report.

**Students’ opinions on this choice of assessment technique:**
I think the opportunity to perform a full HAZOP study and report for grading would be very useful in preparation for a career in the engineering industry as this is regular practice. However, it would be quite intimidating at first, so it would be helpful to have specific training on how to perform the study and write the report, and to see examples or for initial assessment to be formative rather than contributing to your final grade.
In-Class Tests

Module specific, testing students on material recently covered in lectures.

Description:
Short, examination-style tests are performed in a timetabled lecture slot under exam conditions. They may consist of multiple-choice questions, calculations, or explanation-based questions.

Where is this assessment method currently used?
Department of Chemistry, University College London

What does it assess?
• students’ knowledge and understanding of material taught recently
• critical thinking
• ability to apply this to solve problems by thinking creatively
• written communication skills are assessed through clarity of their written answers

Benefits from a teaching perspective:
Lecturers are able to write more detailed questions focusing on material taught recently rather than the whole lecture series, as in a traditional examination. The tests are shorter to write and mark, and provide an opportunity to identify where students are succeeding and struggling whilst the module is still running.

Disadvantages from a teaching perspective:
Lecturers may have to write examination-style questions and mark these frequently, depending on how many class tests are included in the module. Setting a test during a lecture slot reduces time available for teaching, so lecturers may feel rushed to deliver the course material.

Positive aspects from a student’s perspective:
The short nature of an in-class test means it can only cover material taught recently, so students should be familiar with the content without needing to revise material taught months ago. Taking the test in the familiar lecture-theatre environment could make students feel more comfortable and confident, as opposed to sitting a traditional exam in an unfamiliar location.

Negative aspects from a student’s perspective:
Being tested in class will cause some exam stress: while students will not be expected to memorise content taught over a whole module, there will still be an aspect of recall required and pressure to perform under very short time constraints. If tests are happening frequently, students may not feel they have sufficient time to revise.
Students’ opinions on this choice of assessment technique:
I think an in-class test would be helpful to get a sense of how well you understand and can memorise material covered recently; if you struggle, you know you need to go over that particular topic again. However, I feel it could cause a lot of stress if you do not have adequate time to prepare for the test, especially if it contributes a considerable amount to your final grade.
In-Laboratory Practical Assessment

Currently module specific; students are continuously assessed throughout the duration of the year-long module. But it could easily be used as a synoptic method of assessment.

Description:
Laboratory skills are commonly assessed continuously over the year: students perform practical experiments following instructions provided, with the aim of producing the desired chemical, in weekly timetabled laboratory sessions often totalling approximately nine hours. The instructions can vary in level of detail, allowing practical ability as well as problem solving skills to be assessed.

Where is this assessment method currently used?
School of Chemistry, University of Leeds

What does it assess?
- practical work assesses student’s manual dexterity
- understanding of laboratory techniques and safety measures.
- preparation for experiments assesses a student’s planning and time-management skills and the ability to deal with unexpected issues in the procedure assesses their ability to think creatively to solve problems
- explanation of procedures and asking relevant questions demonstrates oral communication skills

Benefits from a teaching perspective:
Students learn to work safely and competently in a laboratory environment, which they may never have experienced before university. This prepares them for success in academia and industry, where practical ability and communication skills are equally important.

Disadvantages from a teaching perspective:
Students must be trusted to use expensive and dangerous chemicals and equipment responsibly. There is a significant amount of risk involved, and it is unfeasible to constantly monitor each student – both in terms of staff numbers and students’ independent learning.

Positive aspects from a student’s perspective:
Students gain knowledge, experience and independence in a laboratory environment, so they feel prepared to enter the working world. Regular laboratory sessions allow the environment to become familiar and students learn how to manage their time effectively. They learn to think creatively to solve problems, whilst having access to help from staff when needed.
**Negative aspects from a student’s perspective:**
Practical work can be very stressful because procedures do not always work as planned, and there is pressure to achieve a good product yield in the timeframe as this directly impacts their mark.

**Students’ opinions on this choice of assessment technique:**
I have found practical work in the undergraduate laboratories to be incredibly stressful because, despite my best efforts, my results have not always gone as planned. There is a lot of pressure to get good results, which I have learnt is not the case in real-life research – but it does provide lots of practice in using the required techniques.
Independent Research Project (Arts and Social Sciences)

This is a synoptic assessment – it comes at the end of the degree programme and is an amalgamation of learning and academic practice completed over the three years.

Description:
This is where a student will complete a research task in full. Not only reviewing literature, outlining a methodology, but actually conducting the research and analysing the data themselves.

Where is this assessment method currently used?
School of Education and School Performance and Cultural Industries at the University of Leeds.

What does it assess?
- intercultural understanding and cultural awareness
- ability to question social conditioning and are political awareness
- interdisciplinary experience and skills
- base knowledge of concepts and issues in the discipline
- ability to relate knowledge to real-world issues
- ongoing interest in the subject.
- ability to engage with issues and construct arguments
- ability to reference properly
- ability to search for literature properly
- able to engage with the literature in a critical way
- able to articulate ideas orally and in writing in a convincing way

Benefits from a teaching perspective:
Can give the student one-to-one guidance throughout the research and writing process. Get a sense for students’ individual research interests.

Disadvantages from a teaching perspective:
It is an exceptionally long piece of work – so it time consuming in terms of supervision and is a heavy workload for the marker.

Positive aspects from a student’s perspective:
Get to research and write about a topic that they find interesting / have a connection with. Sense of purpose with the work – making a genuine contribution to their field

Negative aspects from a student’s perspective:
If time management is not effective then students can be left with an exceptionally heavy workload. Takes very careful consideration to choose and refine a research topic.
Students’ opinions on this choice of assessment technique:
It is a great opportunity to find an academic specialism. However I think there could be more room to include practice-led research in these kind of assignments.
Investigation Report

Currently module specific, but could be synoptic.

**Description:**
This is a written report summarising the procedure and results of an investigation, which may be performed by a student individually or in groups, or by a different party. It typically consists of various sections such as an introduction, methodology, summary of results, and discussion.

**Where is this assessment method currently used?**
School of Education, University of Leeds.

**What does it assess?**
- critical thinking about results and their meanings
- research skills
- understanding of investigative methods
- ability to think creatively and reflectively
- ability to engage with the issues presented to construct relevant arguments
- written communication skills

**It may also assess:**
- group-working ability
- practical skills in performing the investigation

**Benefits from a teaching perspective:**
Students are given an opportunity to develop their written communication skills by learning to write to in a conventional report structure. They also develop their understanding of investigative procedures by writing the report, even if they have not performed the investigation themselves.

**Disadvantages from a teaching perspective:**
If students are new to developing their own investigations, they may struggle to write a report on the process and results in a conventional style. Marking the project could be time-consuming due to the variety of each student’s investigation. If the students are not performing the investigation, appropriate data may be difficult to find or time consuming to generate.

**Positive aspects from a student’s perspective:**
Writing a report about an investigative procedure helps students understand where the results have come from and appreciate what they mean. They learn to write concisely and to fit a brief, which is a key skill in many graduate roles. They may also have the opportunity to work with a group to develop practical ability.
Negative aspects from a student’s perspective:
Performing the investigation and collecting results (if applicable) can be intimidating if the student is unfamiliar with this process. Writing and formatting the report can be time consuming, especially if the results of the investigation vary from those expected.

Students’ opinions on this choice of assessment technique:
I think writing reports is an essential graduate skill and it would be beneficial to practise this and get feedback on my writing. Planning an investigation could be intimidating at first, but is important to learn to work independently and to take responsibility for your work.
Laboratory Notebook

Specific to modules containing an aspect of laboratory work.

Description:
Students are assessed on the content and organisation of the bench notes in their laboratory notebook. These should include the date and title of the experiment, the planned and actual procedures, results and calculations. The laboratory notebook can be assessed as part of the laboratory report, or treated as a separate entity.

Where is this assessment method currently used?
Department of Chemistry, University College London

What does it assess?
- organisational skills in accordance with scientific convention
- written communication skills
- ability to perform simple calculations
- students’ understanding of relevant information to record

Benefits from a teaching perspective:
Students learn how to make clear, relevant records whilst in the laboratory. This prepares students for a career in academia or industry where experiments need to be repeated or published, and laboratory notebooks can act as legal documents in patent disputes.

Disadvantages from a teaching perspective:
As there is no universal method of organising notes in a laboratory notebook, marking is highly subjective according to the preference of the individual.

Positive aspects from a student’s perspective:
Students form a good habit of recording notes while they work in the laboratory and understand the importance of keeping clear and comprehensive records. In addition, good records from inside the laboratory will be a great help to students when writing laboratory reports outside the lab.

Negative aspects from a student’s perspective:
Adhering to the many conventions of good laboratory reporting requires lots of effort, and certain aspects can feel unnatural when trying to maintain a tidy appearance, such as ensuring any mistakes can still be read. Students may struggle to keep constant records whilst working in the laboratory as they may be focusing more on performing the experiment within the timeframe and trying to solve any problems as they occur.
Students’ opinions on this choice of assessment technique:
I have never had my laboratory notebook marked as a separate entity to my laboratory report; my notes have only been briefly checked to ensure I have been keeping records of my work whilst in the lab. Placing more emphasis on the laboratory notebook would definitely encourage students to get into good habits, but would increase the pressure whilst working in the laboratory as it can be time consuming to ensure you are recording everything correctly.
Laboratory Report

Currently module specific; students are continuously assessed throughout the duration of the year-long module. But it could easily be used as a synoptic method of assessment.

Description:
Following synthesis of a chemical product in timetabled laboratory sessions, students analyse their products and write about their findings in a laboratory report. These reports are written in an impersonal scientific style, standard of practice in an academic or industrial setting, and typically feature a date and title, introduction and balanced equations, experimental, results and discussion, and references. Alternatively, the laboratory report may be written in a shorter, pro forma style, in which answer prompts are provided. The reports are marked on an approximately weekly basis, during which product quality and report format and content are assessed by member of academic staff or postgraduate student. Marking may be performed in a one-on-one session with the student, or outside of the laboratory.

Where is this assessment method currently used?
School of Chemistry, University of Leeds

What does it assess?
- students’ understanding of scientific concepts
- numerical literacy
- written communication skills
- oral communication skills in a one-on-one marking session
- ability to think critically and reflectively
- ability to solve problems.

Benefits from a teaching perspective:
The continuous assessment of laboratory reports develops students’ time-management skills in keeping to regular deadlines. Students’ understanding of chemical concepts and procedures are clearly communicated through marking sessions; additional teaching can be directed towards those in need. Students learn to write a lab report according to scientific convention in preparation for graduate roles in the laboratory and for better understanding any laboratory reports they read.

Disadvantages from a teaching perspective:
Regularly marking each student’s work in a one-on-one session is time consuming and requires a high volume of staff.
Positive aspects from a student’s perspective:
Regular feedback from laboratory reports allows students to demonstrate and monitor their progress, and ask specific questions in the one-on-one marking sessions to aid learning. Students are aware of their exact grade and have the opportunity to improve it over time.

Negative aspects from a student’s perspective:
There is additional pressure to produce a good product with a high yield, as this impacts the laboratory report grade as well the practical assessment grade. Writing lab reports on a regular basis can be time consuming; as there is not time to complete these during allocated laboratory sessions it can be easy to fall behind schedule. One-on-one marking sessions provide additional pressure on students to prove their knowledge through oral questions, and scoring can be highly subjective depending on the person marking the report.

Students’ opinions on this choice of assessment technique:
I have been able to keep up with planning experiments and writing lab reports through careful organisation, but it is very time consuming and I expect it would be difficult to catch up if you had fallen behind – it can feel like lab work is never-ending. It is helpful to receive feedback during discussion so you can put it into action straight away.
Laboratory Research Project

Module specific, however uses lab skills learnt over the course of the degree.

**Description:**
In this case, a 4,000 word lab report on 12 weeks of lab research (one semester).

**Where is this assessment method currently used?**
School of Chemistry, University of Leeds

**What does it assess?**
- performing the practical work assesses a student’s manual dexterity
- their understanding of laboratory techniques and safety measures
- written communication,
- research skills
- critical and lateral thinking
- report writing skills
- independent learning ability to develop a hypothesis
- ability to make and analyse compounds.
- Ability to work chemistry software
- problem-solving skills for open-ended problems.

**Benefits from a teaching perspective:**
See an insight into how deep knowledge and understanding is. Able to assess many different skills. Not much teaching required: a brief is given, then a supervisor is just there to guide the work. May add information to their field of work.

**Disadvantages from a teaching perspective:**
A long read. No opportunity to ask further questions like in a presentation, for example. Time taken to prepare briefs.

**Positive aspects from a student’s perspective:**
Topic usually is chosen by the student, so interesting to read upon and write about. Flexibility on where you would like to take the research. Student has a good opportunity to show their interest in a particular topic and this can help career development. No need to memorise lots of facts, just use skills already acquired from previous lab work. Lab work taken at own pace, less stress.

**Negative aspects from a student’s perspective:**
Time consuming. The supervision of the report can be inconsistent. Some supervisors are willing to help students a lot more than others which could make this form of assessment seem unfair. Marks may vary according to which professor marks the work.
Students’ opinions on this choice of assessment technique:
Good that students get to choose their own topic and take their projects are their own pace. It would be nice if it could be arranged to speak to students in previous years about how they found certain supervisors as they can be inconsistent with how much they assist you.
Lesson Plan

Can be specific to a teaching module, or synoptic across an education degree.

**Description:**
Students create a plan for a lesson to be taught in schools to pupils of a specified age. The plan should describe the learning objectives, teaching activities, resources to be used in class, methods for verifying student learning, and further steps such as homework. Students may carry out this lesson in a school; if so, they can write a review of their lesson discussing which aspects went well and which parts of their plan could be improved.

**Where is this assessment method currently used?**
School of Education, University of Leeds; School of Chemistry, University of Birmingham

**What does it assess?**
- a student’s knowledge and understanding of their subject as they prepare to share this with others.
- ability to think creatively by finding teaching methods which will engage their pupils
- written communication skills through creating a lesson plan which can be followed
- if the student performs the lesson to a class, their oral communication skills are tested
- their ability to think reflectively when reviewing their lesson

**Benefits from a teaching perspective:**
By considering how to teach others, students think critically about their own knowledge and are encouraged to fill in any gaps in their understanding. A teaching plan is usually brief so can be quick and easy to mark.

**Disadvantages from a teaching perspective:**
Due to the brief nature of a lesson plan, marking can be difficult if a student has not provided adequate explanations of their plans. Reliability of assessment can be affected by the marker’s knowledge of the subject to be taught by the student.

**Positive aspects from a student’s perspective:**
Creating a lesson plan provides a clear method for students to demonstrate their knowledge of the many aspects to consider when teaching. Students may be able to use lesson plans created for assessment in a real lesson; if not, they will know how to plan any lessons they may be required to teach at a later date. Receiving feedback on assessed lesson plans will help students improve their lesson plans in future.

**Negative aspects from a student’s perspective:**
Students may struggle to demonstrate their knowledge of teaching practice due to the brief nature of the lesson plan. Some students may dispute the value of the lesson plan as a
concept: some may prefer to teach from their own notes, rather than a standardised lesson plan, and others may feel it is a pointless exercise due to the unpredictable nature of the classroom environment.

**Students’ opinions on this choice of assessment technique:**
For anybody interested in teaching, I think a lesson plan would be a valuable exercise, even if the lesson is not to be delivered to a class. It encourages students to consider the aspects of teaching in detail. I feel a lesson plan would be most successful as an assessment method if combined with a supporting document where students can explain their intentions and/or their experiences.
Literature Review

In this case, module specific but can be synoptic.

**Description:**
Evaluative report of information found in the literature related to your selected area of study. The review should describe, summarise, evaluate and clarify this literature.

**Where is this assessment method currently used?**
Schools of Biology, Chemistry, Education and Performance and Cultural Industries, University of Leeds.

**What does it assess?**
- knowledge and understanding of a particular topic, often in-depth
- written communication
- experience with primary research
- experience with literature
- understanding and appreciation of others’ view
- drawing conclusions based on data collected
- independent working
- persuasive skills
- understanding of how the research process works

**Benefits from a teaching perspective:**
Effective way to gauge depth of understanding and knowledge of student. Doesn't require many teaching hours. Assesses many different skills.

**Disadvantages from a teaching perspective:**
Takes time to devote to reading student’s responses. No opportunity to ask further questions, like in a presentation for example.

**Positive aspects from a student’s perspective:**
If the time is managed well, this causes minimal stress. Opportunity to show many abilities. Fairly simple task to undertake.

**Negative aspects from a student’s perspective:**
Marks may vary according to which supervisor marks the work. If work to be reviewed is assigned to you, then it may be in an area in which you have no interest.

**Students’ opinions on this choice of assessment technique**
If planned in advance by the student, this can result in great performance. Simple task to do, finding relevant information and presenting it in a more condensed way.
Multiple Choice Questionnaire

Currently module specific, but could be used as a method of synoptic assessment.

Description:
A type of examination, taken mid-term or at the end of a module, in which students answer questions by selecting options from a list given. There are often around five answers provided for each question, and students may be asked to select the correct or incorrect statement(s) from the list. Students may be penalised for selecting incorrect answers.

Where is this assessment method currently used?
School of Biology, University of Leeds

What does it assess?
- understanding of subject material
- problem solving
- attention to detail
- numerical literacy

Benefits from a teaching perspective:
Focus is placed on understanding of difficult concepts within the subject material. Teaching can be more detail orientated, which may be preferable for an individual to demonstrate their area of specialism. Marking is fast and easy, and often computerised. This means feedback can be given to students promptly.

Disadvantages from a teaching perspective:
Multiple choice questionnaires can be difficult and time consuming to write; incorrect answers must be provided as well as correct ones, but they cannot be too obviously wrong. The style of question is quite restrictive: they typically cover definitions or simple explanations, or answers to mathematical problems.

Positive aspects from a student’s perspective:
Students may feel there is less pressure to memorise facts, as seeing the correct answer provided (albeit amongst similar incorrect answers) can act as a prompt. It can be reassuring to be able to answer every question, even if guesswork. Exams may take less time to complete.

Negative aspects from a student’s perspective:
Having answers provided means a deeper understanding of concepts is expected, and it may be difficult to distinguish between similar correct and incorrect answers. There is very little opportunity for students to demonstrate their knowledge outside of the specified answers. For example, no credit can be given for using the correct method but obtaining an incorrect answer for a mathematical problem.
Students’ opinions on this choice of assessment technique:
I have found some multiple choice questions to be quite challenging. I don’t think they are a fair way to assess a whole module as there is so little flexibility, but they could be good for assessing understanding of concepts for partial module credit.
Newspaper Article

Currently module specific, but could be used as a method of synoptic assessment.

**Description:**
Writing a piece that could have a place in a scientific journal based on a recent scientific paper.

**Where is this assessment method currently used?**
Biology, University of Southampton

**What does it assess?**
Knowledge and understanding of a particular topic, often an in-depth one. Written communication, experience with primary research and experience with literature. Understand and appreciate others’ view and come to a conclusion based on data collected. Independent working, persuasive skills. How the research process works. Creativity in writing.

**Benefits from a teaching perspective:**
Effective way to gauge depth of understanding and knowledge of student. Not a long piece of writing to have to mark. Reading a different style of work is interesting.

**Disadvantages from a teaching perspective:**
Takes time to devote to reading student’s responses. No opportunity to ask further questions, like in a presentation for example. Only view a small representation of all the work that the student has put in.

**Positive aspects from a student’s perspective:**
If the time is managed well, this cause minimal stress. Fairly simple task to undertake. Different style of writing so interesting.

**Negative aspects from a student’s perspective:**
Marks may vary according to which supervisor marks the work. If work to be reviewed is assigned to you, then it may be in an area you in which you have interest in and there is a risk you might underperform. Only shows a portion of the work done.

**Students’ opinions on this choice of assessment technique:**
If planned in advance by the student, this can result in great performance. Simple task to do, finding relevant information and presenting it in a more condensed way.
Online Assessments

Generally module specific, and most appropriate for highly numeric modules.

Description:
An online assessment generally consists of a series of online tests taken throughout the module, requiring typed input of an answer or selection from multiple choice. Each test can be accessed at any point within a specific time window and prepared feedback is usually provided to the student instantly after submission. There is the option to allow multiple attempts at each assessment.

Where is this assessment method currently used?
School of Chemistry, University of Leeds

What does it assess?
- understanding of course material
- problem solving through application of knowledge
- time management

Benefits from a teaching perspective:
Students can focus on gaining a better understanding of course material as they have access to notes and lecture materials whilst completing the tests rather than having to memorise facts. This means they are better equipped to solve the problems faced, as they can make use of relevant resources as would happen in the real world. No need to mark answers from each student’s submission as feedback is automatic.

Disadvantages from a teaching perspective:
It is difficult to award credit for correct method but incorrect answers, as only the final answer is submitted. Setting up the online tests with answers can be time consuming, especially if multiple versions of each question have been written. Doesn’t demonstrate students’ ability to retain relevant information.

Positive aspects from a student’s perspective:
There is no need to memorise information, so more effort can be made to understand it. Students can access and the tests at any time during the allocated time windows, for improved flexibility and reduced stress compared to the strict time constraints of traditional exams. Feedback is provided instantly in terms of number of correct answers. If allowed, students can have multiple attempts with their best score taken, so they have the opportunity to learn from their mistakes.
Negative aspects from a student’s perspective:
Completing each test before its deadline can cause more stress throughout the duration of the module compared to a final examination. Having multiple attempts at each assessment can be time consuming. No credit for working out means marks can drop significantly due to small factors such as mathematical errors. Automatic feedback isn’t detailed – it isn’t tailored to the individual, so may not be particularly helpful.

Students’ opinions on this choice of assessment technique:
Having to regularly complete the online tests on top of doing other work was stressful, especially considering the all-or-nothing marking system. However, this was preferred over another end-of-module exam – it was good to have marks for this module secured whilst other modules were being assessed. I enjoyed the chance to focus on understanding the information taught without worrying that I would have to remember every detail.
Open-Book Exam

This example of an open-book exam being used in the School of Chemistry at the University of Leeds was module specific. However, this method could also be used for synoptic assessment as it does not require large amounts of information to be memorised.

Description:
Questions are set under traditional examination conditions, except students are allowed access to textbooks, lecture materials and written notes brought with them to the exam. Electronic devices which allow access to the internet are usually forbidden.

Where is this assessment method currently used?
School of Chemistry and School of Chemical and Process Engineering, University of Leeds

What does it assess?
- planning
- time management
- understanding of course material
- problem solving
- identification of relevant course material
- written communication skills

Benefits from a teaching perspective:
Focus is placed on higher-level learning rather than memorisation; this encourages deeper understanding and engagement with taught material. Students learn how to manage time and resources by choosing relevant reference materials to bring to the exam and how to use these efficiently to support their own knowledge. Exams can feature more in-depth questions, which allow students to solve problems using available resources, just as they would outside the academic world.

Disadvantages from a teaching perspective:
Students may rely too heavily on their resource materials, considering these a replacement to engaging with the material during teaching, and therefore struggle with the basic understanding needed to successfully tackle the advanced problems. Exam papers may be more challenging to write and mark, as lower-level questions, such as definitions, are no longer appropriate.

Positive aspects from a student’s perspective:
Relief of stress from trying to memorise all relevant content for an exam, therefore study time can be spent understanding the material. Students may enjoy learning the material more as they feel less pressure to memorise it. Reference materials for the exam can be prepared in a style suited to the individual’s preference for learning. Students learn to highlight relevant materials to bring to the exam and how to use these effectively.
Negative aspects from a student’s perspective:
Students can no longer rely on the easier memory-based questions to guarantee marks in the exam, as they will not be credited for reproducing material that can be brought into the exam. Therefore the questions will be more difficult, and the exams will take longer to complete. Also, students must invest time to find and prepare relevant reference materials before the exam.

Students’ opinions on this choice of assessment technique:
I have only experienced an open book exam as a midterm exam – whilst I and many other students were shocked at the start of the semester to learn we had an exam in just a few weeks’ time, we understood the reasoning and adapted well to the procedure. It was especially helpful to have the test during revision week when we could focus on preparing for the exam, rather than having to fit it around other lectures, and having this done increased my confidence in the traditional exam used to assess the rest of the module.
Oral Examination / Viva Voce

This method of assessment can be either module specific or synoptic.

**Description:**
In an oral examination, a student provides a spoken response to questions posed by one or more examiners in an isolated setting. The examination usually lasts between 5 and 30 minutes, and varies in structure between closed, in which all questions are prepared beforehand, and open, in which the examiner builds upon points raised by the student during the examination.

**Where is this assessment method currently used?**
Department of Chemistry, University College London and School of Chemical Engineering and Analytical Science, University of Manchester

**What does it assess?**
- oral communication skills
- subject knowledge and understanding
- problem solving
- creative thinking
- critical thinking

**Benefits from a teaching perspective:**
The examination can be designed to assess a variety of skills, from simple knowledge recall to more advanced problem solving questions, so grading can be tailored to the level of each student. A student’s knowledge and ability can be accurately assessed in an oral examination as it is difficult for answers to be shared between students, especially if the examiner uses a random selection of prepared questions for each student. Feedback can be given to students immediately after the examination, which allows for their personal improvement, and the examiner can quickly identify any gaps in the knowledge of the students as a group.

**Disadvantages from a teaching perspective:**
Oral examinations take a long time to conduct so are unsuitable for large class groups, and usually take place in cancelled teaching time. If the exam is to be performed by more than one examiner, clear marking guidelines must be established for fairness to students. Unlike a written examination there is no anonymity for students, which could cause bias.

**Positive aspects from a student’s perspective:**
Oral examinations provide an excellent opportunity to practice oral communication skills, as well as the ability to adapt to a situation, which are valuable skills to have in any working environment. In addition, some students may find it easier to explain their thoughts and knowledge orally (compared to a written exam) as there can be more interaction with
the examiner. Information rehearsed through speech is more likely to be retained than that memorised for a written examination.

Negative aspects from a student’s perspective:
If unfamiliar with the format, oral examinations can be very stressful for students – often more so than a written exam. This could have a detrimental effect on their performance in the exam, even if they have high level of subject knowledge and understanding. Students could be negatively impacted by bias from a familiar examiner, or their random selection of questions, which an individual may deem to be more difficult than equivalent questions.

Students’ opinions on this choice of assessment technique:
While an oral examination would at first be much more stressful than a written examination, I think some of this stress could be alleviated by having adequate time to practise oral communication skills beforehand, and being told what to expect from the exam. It could be difficult to review your answers as you would in a written exam, but I think being able to form a suitable response to a question on the spot is a valuable skill to have.
Peer Assessment

In this case, module specific but could be synoptic.

Description:
Marking their peers’ work against agreed assessment criteria.

Where is this assessment method currently used?
School of Biology

What does it assess?
- written communication
- understanding and appreciation of others’ views and work
- ability of students to grade against an assessment criteria

Benefits from a teaching perspective:
No marking involved. Minimal time has to be spent. (Editor’s note: Assessment criteria must be carefully prepared and adequate time given to training students in how to use them).

Disadvantages from a teaching perspective:
Students more likely to have bias so teacher receives inaccurate grade.

Positive aspects from a student’s perspective:
Increased understanding of assessment criteria. Good practice to compare your abilities and progress to others to see how they have dealt with the task. Relatively simple task to undertake, which has positive consequences. Good to build each other’s confidence up, and students are likely to learn things from each other’s work. Comparing people’s work can lead to encouragement of healthy competition resulting in enhanced performance.

Negative aspects from a student’s perspective:
Students can be unsure about the responsibility of grading someone else’s work. Some students may mark more generously than others so there is the potential for inconsistency.

Students’ opinions on this choice of assessment technique
A good idea, perhaps more common use in formative rather than summative work. Main advantages include comparing people’s work encouraging some healthy competition resulting in enhanced performance, and learning from peers by looking at their work.
Plant Design Project Report

The design report itself is specific to the final-year module, but assesses skills developed throughout the degree.

Description:
In teams, students develop a design for a chemical engineering plant, considering practicality, sustainability, and economic and operational feasibility. The final product is a report, containing sections covering process synthesis, detailed design of key units, plant control, plant safety and layout, environmental impact, business plan, and executive summary. The project may be worth up to 40% of the final-year grade, with credit given for group contribution and presentation as well as the written report.

Where is this assessment method currently used?
Department of Chemical Engineering, Imperial College London;
Department of Chemical and Environmental Engineering, University of Nottingham;
School of Chemistry and Chemical Engineering, Queen’s University Belfast.

What does it assess?
- subject knowledge and understanding
- problem-solving skills
- ability to think critically
- creativity
- ability to work independently
- ability to work as part of a group
- research skills
- organisational skills, presentation skills
- written communication
- oral communication

Benefits from a teaching perspective:
Students have the opportunity to put the skills they have developed over the course of their degree into practice in preparation for working in the engineering industry. Through group meetings, which replace lectures, teachers can assess students’ progress and offer personalised support to help students succeed, both in the assessed report and after they graduate.

Disadvantages from a teaching perspective:
Whilst meetings with students help teachers to monitor their progress, it can be difficult to help those who are struggling without doing the work for them – students must develop the ability to work independently in an organised manner. Logistically, it can be difficult to meet with students working on different projects with different timescales.
Positive aspects from a student’s perspective:
This project guides students through the entire process of designing a chemical engineering plant, providing an insight into their likely careers after graduation. Students appreciate the level of independence and learn to think imaginatively and critically whilst reflecting on their own work – these are vital skills for graduate roles. As the project is worth a significant proportion of the final-year grade, a large amount of time is dedicated to the work, giving students the flexibility to organise their working pattern.

Negative aspects from a student’s perspective:
Some students may struggle to organise their work given the high level of independence required on the project. There are many aspects to consider, and some may lack motivation to work over an extended period of time without direction from a tutor. As the project is largely group based, individuals may find it frustrating if their work schedules do not match up with others in their group.

Students’ opinions on this choice of assessment technique:
This would be an exciting opportunity to experience all aspects of a chemical engineering plant design plan. The idea could be intimidating at first, but with support from tutors and good group communication it would be ideal preparation for working in the chemical engineering industry after graduation.
Poster

Can be module specific when referring to a particular topic, or synoptic if covering several topics taught over an extended period of time.

Description:
Students create either an individual or group poster demonstrating their work in a visually appealing style, often in colour, for display. Students may also perform a presentation of their poster to an audience.

Where is this assessment method currently used?
School of Chemistry, Cardiff University
Department of Chemistry, Durham University

What does it assess?
- subject knowledge and understanding
- research skills
- problem-solving ability
- graphic-design skills
- creativity
- written communication skills

This method can also assess oral communication skills if presented to an audience, and ability to work in a team if produced and presented as a group.

Benefits from a teaching perspective:
Students’ work is presented in a concise, easy-to-read format. The key information is highlighted so marking can be very straightforward. A poster provides an ideal prompt for supporting questions to fully assess students’ knowledge and understanding of their subject.

Disadvantages from a teaching perspective:
Due to the concise nature of a poster, not all of the students’ work efforts will be demonstrated in the final product. Therefore, it could be difficult to grade if there are key pieces of information missing. For a group poster, it may be difficult to identify each student’s contribution to the final product.

Positive aspects from a student’s perspective:
Designing and creating a poster can be more enjoyable for students than other types of assignments, such as essays or problem sheets. Students will learn how to communicate ideas efficiently due to the limited available space, and, if producing a group poster, how to work with others to successfully create a collaborative product.
Negative aspects from a student’s perspective:
Students may focus too much on the design of the poster rather than the content, meaning their grade suffers as there is insufficient demonstration of knowledge. On the other hand, it can be difficult to decide what information needs to be included on the poster, and too much is included so the appearance suffers.

Students’ opinions on this choice of assessment technique:
I like the idea of creating a poster to summarise key ideas, but I think I would struggle with knowing what information needs to be included and what can be left off. Having clear guidelines to follow, or an awareness of the assessment criteria, would be very helpful.
Poster Presentation

In this case, module specific but could be synoptic.

Description:
A speech or talk in which information is conveyed to (an)other individual(s) using an academic poster they’ve made.

Where is this assessment method currently used?
School of Chemistry, University of Leeds

What does it assess?
- knowledge and understanding of a particular subject
- verbal communication skills
- confidence
- ability to do independent work
- research skills
- thinking critically and laterally
- appreciating different points of view
- persuasive skills

Benefits from a teaching perspective:
Interesting to participate in. There often an opportunity to ask questions to get in more in-depth idea of the knowledge and understanding the student has. Shows communication skills of student. The student’s work is condensed into an easy-to-read format.

Disadvantages from a teaching perspective:
Potentially time consuming to listen to so many presentations. Due to the concise nature of a poster, not all of the students’ work efforts will be demonstrated in the final product. Therefore, it could be difficult to grade if there are key pieces of information missing. For a group poster, it may be difficult to identify each student’s contribution to the final product.

Positive aspects from a student’s perspective:
Presentation skills are usually essential for going into a chemistry profession and so this provides valuable experience. Often what is presented has been researched and so this skill is acquired. Get the chance to convey points across to academics, more impactful than writing. Enjoyable. Opportunity to convey points of view and understanding. The work for the poster is usually already done, so all that is required is condensing and identifying important information to be included on the poster.
Negative aspects from a student’s perspective:
Perhaps a lot of pressure on those who are shy. however after a few presentations this should improve. Can be stressful. Students may choose irrelevant information to include on the poster, not reflecting all of their work and therefore achieving less than they deserve.

Students’ opinions on this choice of assessment technique:
Gives you great experience for industry work. Ensures thorough, in-depth knowledge and understanding of a topic as the supervisor or tutor is able to ask any questions. Perhaps needs to be introduced more especially in Chemistry as most will get to third year having not done a single individual or group presentation, and considering the presentation is worth 15% of a 35-credit module we need more experience.
Practical Assessment (Collaborative)

Performance and Cultural Industries students will have one of these modules per year, this makes the assessment more holistic, each building off the previous year’s. Students become more familiar with the structure of the assessment and by third year they are creating full-scale ambitious theatre.

Description:
Similar to Practical Assessment (Creative Practices) this assessment revolves around a group performance. However, this project is of a larger scale and the process is taken into consideration when it comes to marking. The practical element is also supported by online blog posts.

Where is this assessment method currently used?
School of Performance and Cultural Industries, University of Leeds.

What does it assess?
- leadership
- ability to contribute to a team and take on different roles as required by the task
- adaptability
- ability to collaborate
- ability to communicate and deal with conflict.
- ability to make something happen / enterprise
- ability to work out practicalities and see them through to completion.
- creativity
- ability to understand human interaction through artistic work.
- application of theories / ideas to practice
- preparation and planning
- problem solving
- practical skills and techniques

Benefits from a teaching perspective:
Post-performance discussions allow the tutor to ask questions about the student’s intentions and gain insight into their work. Unlike the majority of creative practice assignments, in a collaborative module there is only one piece of theatre created, meaning that the tutor can focus their time and have a clearer sense of the process.

Disadvantages from a teaching perspective:
It is hard for the tutor to get a true sense of how the collaboration has gone, as the working relationship between 20 or so students may be more nuanced than the success or failure of the final piece might suggest. Again, they have to assess the final piece, which is turning a subjective opinion into something quantifiable. However, more emphasis is put on the process in this module, which alleviates some of this pressure.
Positive aspects from a student’s perspective:
Students can choose a role within the ‘company’ that is not performance related (e.g. marketing, costume design, producer), meaning that alternative skills can be accredited just as much as performance ability. Group work can take away exam pressure, especially in this type of assessment where there are often around 20 students working on one project.

Negative aspects from a student’s perspective:
While the success of the final performance (which is again rather subjective a concept) is not as heavily weighted as it is in creative practice assessments, it still means that a lot of the students’ grade will ride on something that is partially out of their control. Group work can be difficult, while this does teach valuable skills to the students, it can still be frustrating if others in the group are not committed and the piece suffers as a result. The group size is rather large, while this allows the group to create a large-scale piece of theatre and helps the school manage the students more easily, it can mean that an individual might feel they lack control over the whole project.

Students’ opinions on this choice of assessment technique:
It is good to have an assessment which focuses so much on practice. Furthermore this assessment, more so than creative practice practical assignments, takes into account the process. which I think is really important for creative subjects. The structure of the assessment, working in a team of over 15 individuals, while frustrating at times means that the module simulates professional theatre working methods and equips its graduates with the skills and experience to work within a professional environment.
Practical Assessment (Creative Practice)

In Performance and Cultural Industries, every student will have at least one creative practice Module per programme year. In this sense it is more synoptic as each module builds on any previous modules. Students can choose whether they would like a more eclectic mix of practice.

Description:
These assessments take the form of a performance devised by a group of students (although there is opportunity at level three to do this independently).

Where is this assessment method currently used?
School of Performance and Cultural Industries, University of Leeds.

What does it assess?
- how a student can work out practicalities and see them through to completion
- the student’s ability to collaborate
- creativity
- the ability to understand human interaction through artistic work
- the application of theories/ideas to practice
- independent compositional judgement
- practical skills and techniques
- the ability to be a reflective practitioner

Benefits from a teaching perspective:
Often there is a post-performance discussion which gives the tutor opportunity to ask questions and gain insight into students’ intentions with the work. The tutor can assess how well the taught material has been translated into practice. Some (but not all) of these types of assessments take into account the process as well as the final performance, meaning students whose tutors felt worked well in the process, but didn’t necessarily perform their best on the final performance, can still be rewarded.

Disadvantages from a teaching perspective:
The tutor has to assess the aesthetic quality of the student’s art. The problem with this is that art is subjective and their mark will only be an opinion. Some of these assessments hinge completely on the final performance, meaning even if a student worked well throughout the process, their grade could suffer if they do not deliver in the final performance. Creativity is difficult to quantify numerically – but this is what tutors will have to do in this instance.
Positive aspects from a student’s perspective:
Can articulate understanding through performance (while this might be a negative aspect for some students whose strengths are not in performance, one can assume this is a minority on a performance BA). Mostly done in groups, which can take the pressure away from the individual.

Negative aspects from a student’s perspective:
Students can be left to feel as if the tutor did not ‘get’ their piece. Again, this links to the idea that art is completely subjective. When everything hinges on the final performance it can create a lot of pressure, especially when factors are out of the individual’s control. Group work, while positive in some senses, can lead to frustrations if unequal amounts of effort and commitment are put in by individuals in the group. However it is not just a group mark and the individual does get accredited for their own contribution.

Students’ opinions on this choice of assessment technique:
It is important that these types of assessments exist – they are crucial for students doing more practical degrees as there is no way these skills could be assessed effectively through written work. However, there are a few problems, the most fundamental being that a tutor’s mark is just one subjective view on the students’ piece and, while moderation can eliminate some of this, you often as a student see work which gets a low mark but to you is deserving of more. This is where the marks for process are appreciated as this is a more objective thing to assess (e.g. commitment, research, etc.).
Practical Essay

This is a more synoptic assessment method as it comes at the end of the degree programme and is weighted at 40 credits. Furthermore, it is the final amalgamation of critical and practical skills learnt over the course of the programme.

Description:
A final-year assessment method that takes more of a practice-based approach to the independent research project. Students pick a topic and devise a question to explore through practice-based research, culminating in a final assessed performance.

Where is this assessment method currently used?
Drama Department, University of Exeter
BA English Literature and Theatre, University of Leeds

What does it assess?
- cultural awareness and ability to interpret a text or a situation.
- whether one can question social conditioning,
- critical thinking
- ability to demonstrate political awareness and show this understanding through artistic work
- creativity
- ability to make something happen
- independence and the ability to be a self-starter

Benefits from a teaching perspective:
Tutors can work closely with the student throughout the whole module, meaning they don’t just see the final outcome but can appreciate the process as well. Get a sense of students’ individual research interests and guide them rather than lecturing.

Disadvantages from a teaching perspective:
High pressures on the department’s practical resources, especially when assignments are done individually.

Positive aspects from a student’s perspective:
Can explore an area of research that is of personal interest. Can create a piece of work that can go on a professional portfolio. Students get to undergo practice-based research, which seems like a more relevant way to research on a practical degree course.

Negative aspects from a student’s perspective:
The performance itself is heavily weighted in the marking. This puts a lot of pressure on students to deliver on the final show date. Some student’s research interests might be better explored and presented in written form.
Students’ opinions on this choice of assessment technique:
It is good to see practice-led research being used at an undergraduate level, it is an important part of theatre and performance research as some things are better understood by doing. I think the pressure would be high and this might be difficult to deal with, however overall I think it makes for a rewarding experience.
Presentation

In this case module specific but can be synoptic.

Description:
A speech or talk in which information is conveyed to (an)other individual(s), often using visual aids, such as a PowerPoint presentation.

Where is this assessment method currently used?
Schools of Chemistry, Biology and Education, University of Leeds.

What does it assess?
- knowledge and understanding of a particular subject
- verbal communication
- confidence
- ability to do independent work
- research skills
- critical and lateral thinking
- appreciation of different points of view
- persuasive skills (depending on the nature of the presentation)

Benefits from a teaching perspective:
Interesting to participate in. There often an opportunity to ask questions to get in more in-depth idea of the knowledge and understanding the student has. Has the potential for teachers to assess many skills.

Disadvantages from a teaching perspective:
Potentially time consuming. Time taken for them to choose nature of presentation.

Positive aspects from a student’s perspective:
Presentational skills are usually essential for going into a chemistry profession and so gives good experience. Get the chance to convey points across to academics, more impactful than writing. Enjoyable. Opportunity to convey points of view and understanding.

Negative aspects from a student’s perspective:
Perhaps a lot of pressure on those who are shy however after a few presentations this should improve. Can be stressful as pressure to perform.

Students’ opinions on this choice of assessment technique:
Gives you great experience for industry work. Ensures thorough, in-depth knowledge and understanding of a topic due to the opportunity for the professor to ask any questions.
Perhaps needs to be introduced more, especially in Chemistry, as most will get to third year having not done a single individual or group presentation, and considering the presentation is worth 15% of a 35-credit module we need more experience.
Problem-Based Learning

Can be either module specific or synoptic as a wide variety of skills are tested using knowledge drawn from different areas.

Description:
Problem-based learning (PBL) involves a group of students learning collaboratively to solve a particular problem. Under the guidance of an academic member of staff acting as a facilitator, students work through the five stages of PBL:

1. Introduction: students are introduced to the problem.
2. Inquiry: The facilitator guides students to use their existing knowledge to develop hypotheses.
3. Self-directed study: each student researches a particular hypothesis.
4. Revisiting the hypothesis: students share their work with the group and evaluate the resources used, then attempt to solve the problem.
5. Self-evaluation: students evaluate their own efforts and the efforts of other group members.

Students are assessed on their written work, group contribution, self and peer assessments, and feedback from the facilitator.

Where is this assessment method currently used?
Department of Chemistry, Emory University, Atlanta, Georgia.

What does it assess?
- research and problem solving skills
- ability to think critically and reflectively, both in a group and individually
- organisational and self-motivational ability
- written communication skills
- oral communication skills
- subject knowledge and understanding

Benefits from a teaching perspective:
PBL assesses students on a wide variety of essential graduate skills, whilst enhancing their subject knowledge and understanding by putting this information in context. Students’ independent learning is guided by an academic member of staff so it is maintained at an appropriate level, and their strengths and weaknesses, as individuals and as a group, can be identified and teaching adjusted accordingly.

Disadvantages from a teaching perspective:
Despite guidance from the facilitator, student learning is highly dependent on the research efforts and abilities of their peers, which could be problematic if all members of a group are not working at the same level. Supervising PBL sessions is time consuming and requires a high volume of staff.
Positive aspects from a student’s perspective:
Students get the opportunity to put their knowledge into context, seeing how it can be used to solve real problems. Self-directed research can be challenging, but understanding the end goal will motivate students to work independently and to contribute to a group project. Meanwhile, they practice their organisational and communication skills.

Negative aspects from a student’s perspective:
Students may struggle initially to find adequate resources, and may feel pressure to perform as they know their work will affect others in their group. They may feel disadvantaged if somebody in their group is not pulling their weight. PBL requires a high level of self-discipline and can be very time consuming.

Students’ opinions on this choice of assessment technique:
I think PBL could be a really interesting method of learning, because it would put subject knowledge into context, whilst providing an opportunity to practice lots of key skills. Working with a group could be supportive, but it could feel very unfair if not all members pull their weight, as both grades and learning would be affected. Therefore the role of the supervisor would be crucial.
**Professional Simulations**

This is a module-specific assessment method.

**Description:**
This is the simulation of a scenario a student might find themselves in once they leave university. Students must treat the scenario as if they were in a professional situation. This can include, but is not limited to, pitches, business plans and application forms.

**Where is this assessment method currently used?**
Theatre/Drama Department, University of Exeter
Theatre/Drama Department, Queen’s University Belfast

**What does it assess?**
- ability to be both creative and pragmatic
- ability to collaborate and deal with conflict
- ability to be enterprising / entrepreneurial
- oral communication
- written communication

**Benefits from a teaching perspective:**
Tutors can equipped students with vocational and entrepreneurial skills as well as academic. Can give feedback that will not only help them improve as intellectuals, but also professionals.

**Disadvantages from a teaching perspective:**
As subjectivity does play into the marking, while the effectiveness of the proposal is more objective, the value of the proposed idea itself is a subjective thing. It is a less academic approach to assessment.

**Positive aspects from a student’s perspective:**
Students gain valuable experience in persuasion and the marketing of their ideas. Simulates a professional situation which has massive benefits when it comes to vocation.

**Negative aspects from a student’s perspective:**
Students do not get the opportunity to follow up on their idea, it is purely hypothetical. Creating a pitch, business plan or application form as a group could lead to conflict – ultimately one key idea needs to be picked over other suggestions

**Students’ opinions on this choice of assessment technique:**
For courses that lead to more entrepreneurial career paths, this is a valuable assessment method. It gives students the opportunity to fail in a low-stakes environment and learn
valuable lessons from the feedback they receive, meaning they are prepared when the simulation becomes a professional reality.
Project Proposal

In this case module specific but can be synoptic.

Description:
In this case, in the form of an abstract and introduction to show plans of the final-year laboratory project. Reviewed, graded and possibly adapted by supervisor. Supervisors give guidance throughout the work done.

Where is this assessment method currently used?
School of Chemistry, University of Leeds

What does it assess?
- written communication
- research skills
- persuasive skills
- report writing skills
- independent learning
- ability to develop a hypothesis
- subject understanding and knowledge
- creativity
- critical thinking

Benefits from a teaching perspective:
See an insight into how deep knowledge and understanding is. Able to assess many different skills. Not much teaching required, a brief given, then a supervisor just there to guide the work. A short read.

Disadvantages from a teaching perspective:
Time taken to prepare the project summaries.

Positive aspects from a student’s perspective:
Topic usually is chosen by the student, so interesting to read upon and write about. Flexibility on where you would like to take the research. Student has a good opportunity to show their interest in a particular topic and this can help career development. No need to memorise lots of facts. Communication throughout project with supervisor provides a way to attain a higher mark.

Negative aspects from a student’s perspective:
Time consuming. The supervision can be inconsistent. Some supervisors are willing to help students a lot more than others, which could make it feel unfair. Some project summaries may be easier to tackle then others.
Students’ opinions on this choice of assessment technique:
Good that students get to choose their own topic. It would be nice if it could be arranged to speak to students in previous years about how they found certain supervisors as they can be inconsistent with how much they assist you.
Python Quiz

In this case module specific.

**Description:**
Usually involves a set of questions under silent conditions to test knowledge and understanding of the most common programming languages. Aids IT skills. Python exams can contain multiple choice questions.

**Where is this assessment method currently used?**
School of Biology, University of Exeter.

**What does it assess?**
- knowledge and understanding of a useful programming language
- ability to reproduce information given in lectures and be able to apply the knowledge in unseen situations
- ability to use logic to solve problems, seen and unseen

**Benefits from a teaching perspective:**
Relatively quick to mark questions and give feedback to students, usually marked on computer. Exams marked fairly and consistently. Teachers can tell the level of understanding of a certain topic fairly easily this way.

**Disadvantages from a teaching perspective:**
Time taken to produce the questions for the exam.

**Positive aspects from a student's perspective:**
Each student is marked according to a scheme and so all are marked fairly and consistently. No plagiarism and little cheating occurring. Exam questions create a competitive environment between students which may cause them to perform better. Students can help each other learn and understand up to the exam itself, which helps build good relationships. If students perform well in exams, this can be a big confidence boost. Ensures student has maximum learning. Pressure of exams can push a student to excel.

**Negative aspects from a student’s perspective:**
Very stressful, relies on a few hours’ excellent performance, which can put pressure on students causing them to underperform even if they have the capability to achieve a high grade. The pressure of the exam also may cause emotional turmoil in the individual, having an effect on their mental health. Sometimes not all subjects from lectures are covered, and so there can be a sense of unfairness, for example it is ‘luck’ what comes up on the exam as certain students prefer certain topics and others may prefer different ones. Students may think that they are not intelligent if they cannot perform well in exams, especially in a subject where the mark is heavily dependent upon exam alone.
Students’ opinions on this choice of assessment technique:
Python exams are an effective way to gauge a students knowledge and understanding of this particular topic. Good life skill to know IT terms.
Referencing

Module specific in this case, but skills that are essential across the board.

Description:
The student references various different types such as books, websites journals and articles to show that they can reference correctly.

Where is this assessment method currently used?
School of Chemistry, University of Leeds.
School of Biological Sciences, University of Southampton.

What does it assess?
- ability to reference using in a specific referencing style
- attention to detail

Benefits from a teaching perspective:
Relatively quick to mark questions and give feedback to students. Marked fairly and consistently.

Disadvantages from a teaching perspective:
Time taken to mark, which should be fairly quick anyway. Requires high attention to detail.

Positive aspects from a student’s perspective:
Each student is marked according to a scheme and so marked fairly and consistently. No plagiarism and little cheating occurring. Referencing skills used throughout university and possibly beyond.

Negative aspects from a student’s perspective:
Time consuming and can be boring.

Students’ opinions on this choice of assessment technique:
Boring but essential work.
Reflective Log / Content Summary

Currently module specific, but could be used as a synoptic method of assessment, for example presenting summaries of lecture notes over semester or year-long periods.

**Description:**
Presentation of summaries of lecture notes, with comments informed by further reading and reflection

**Where is this assessment method currently used?**
School of Education, University of Leeds

**What does it assess?**
- understanding of and engagement with taught material
- critical thinking
- self awareness
- research skills
- written communication skills
- ability to be self-reflective

**Benefits from a teaching perspective:**
Teachers can ensure students are engaging with the taught material, instead of passively accepting what they are being told. Students’ progress and understanding can be regularly monitored, and they are encouraged to attend lectures so they can keep up.

**Disadvantages from a teaching perspective:**
Students may tend to reproduce lecture notes rather than summarising and adding their own research; this is not particularly helpful to their critical thinking development.

**Positive aspects from a student’s perspective:**
Being assessed on summaries of lectures notes encourages students to get into the habit of summarising the material they have been taught, which is useful for revision purposes, and ensures the information is really understood. Students value the opportunity to give their own opinions and comments on the material taught.

**Negative aspects from a student’s perspective:**
Summarising lecture notes may not be the most effective learning style for an individual, so some may feel they are wasting their time. Students may struggle to find relevant further reading at a level appropriate for the material being taught.
Students’ opinions on this choice of assessment technique:
This seems like a good option to ensure understanding of the taught material as it forces you to engage with the lecture notes. However, you could easily spend too much time researching appropriate further readings, for little credit. I think this is a good way to earn partial credit for a module and to encourage attendance to lectures.
Research Proposal

This method is module specific.

Description:
This is assignment where the student will complete the first steps of research project – creating a question and an abstract, completing a literature review and outlining methods.

Where is this assessment method currently used?
School of Education, University of Leeds

What does it assess?
- interdisciplinary awareness
- base knowledge of concepts and issues in education
- understanding of knowledge
- criticality about education policy and practice
- awareness about their own learning and the learning of others
- ability to engage with issues and construct arguments
- ability to reference properly
- ability to search for literature properly
- critical engagement with the literature
- ability to articulate ideas orally and in writing in a convincing way

Benefits from a teaching perspective:
Can get a sense of how well students understand academic process, this can allow tutors to give guidance and advise before a heavier weighted research assignment such as a final-year project or capstone experience. The tutor can also get a sense of the student’s research interests.

Disadvantages from a teaching perspective:
Students’ research might stretch beyond the breadth of the tutor’s knowledge, making the accuracy of the work more difficult to determine.

Positive aspects from a student’s perspective:
Students have the opportunity to hone academic skills prior to a larger assignment such as an independent research project. Students can find an area of specialism which interests them.

Negative aspects from a student’s perspective:
Only get to propose the research as opposed to actually conducting it. Might struggle to do a literature review if the topic is too niche. (Editor’s note: The proposal could be developed into the student’s final-year project in a subsequent year).
Students’ opinions on this choice of assessment technique:
I think it is a good idea to be able to practice these academic skills before larger assignments. I think for many students the third-year dissertation comes by too soon and many haven’t done research assignment previously. This way you feel more equipped to deal with research and its structure.
Self Assessment

In this case, module specific but can be both.

Description:
Student grading their own piece of work, or reporting on how well they think they have performed.

Where is this assessment method currently used?
School of Biology, University of Leeds

What does it assess?
- ability to reflect on an experience
- written or verbal communication
- ability to acknowledge personal strengths and weaknesses and recognise own limitations
- ability to learn from failures

Benefits from a teaching perspective:
See development of individual and really get an insight into how effective the module is for learning, growth and development. It can highlight potential problems within the module that as a result are fixed quicker.

Disadvantages from a teaching perspective:
Takes time to devote to reading student’s responses. No opportunity to ask further questions.

Positive aspects from a student’s perspective:
Good practice to reflect on your own abilities and how you can improve. Helps development of individual and makes them aware of what they have done well and what they must do to improve. Helpful for career development. Relatively simple task to undertake which can have positive consequences.

Negative aspects from a student’s perspective:
It may not be accurate as you are judging yourself.

Students’ opinions on this choice of assessment technique:
A useful exercise. Encourages students to think about how well they performed and can highlight areas of improvement.
Self-Reflective Essay

In this case, module specific but could be synoptic.

Description:
A piece of writing reviewing your experience of something. Some topics may include questions such as what did I learn most, how would I have done it differently if I could do it again, how did I find working in a group, etc.

Where is this assessment method currently used?
School of Chemistry, University of Leeds

What does it assess?
- ability to reflect on an experience
- written communication
- understanding and appreciation of others’ views
- independent working
- originality
- persuasive skills

Benefits from a teaching perspective:
Interesting read. See development of individual and really get an insight into how effective the module is for learning, growth and development. It can highlight potential problems within the module and as a result they can be fixed more quickly.

Disadvantages from a teaching perspective:
Takes time to devote to reading students’ responses. No opportunity to ask further questions.

Positive aspects from a student’s perspective:
Good practice to reflect on your own abilities and how you can improve. Helps development of individual. Helpful for career development as interviewers often ask for experiences where you learnt a particular skill, or asked about a time when you found yourself in a difficult position and how you overcame it. Good to recognise strengths and weaknesses in oneself, interviewers also often ask about that. Relatively simple task to undertake which has many positive outcomes.

Negative aspects from a student’s perspective:
It can be a little boring! In addition if you don’t write experiences down as you go along, when the end of the module comes and you have to write a self-reflection essay, it can be difficult to remember everything that happened.
Students’ opinions on this choice of assessment technique:
I found it to be great for personal development, very useful for applying for jobs in the future. It may seem pointless to students at the time, but they soon discover it’s an important exercise to get into the habit of doing.
Site Investigation

Generally module specific.

Description:
A site investigation involves researching the geotechnical and environmental conditions of an area to determine its suitability as a site for a new building project. In a chemical engineering context, it is performed on potential sites for new engineering plants. The results are organised in a report, or displayed visually on an annotated map.

Where is this assessment method currently used?
School of Environmental and Chemical Engineering, University of Nottingham

What does it assess?
- ability to think critically
- creativity
- ability to solve problems
- research skills
- written communication skills

Benefits from a teaching perspective:
Students are encouraged to think outside their academic discipline, by considering how their learning will be applicable in industry after graduation. Students learn to work independently, and practice demonstrating their findings in a format that can be understood by those outside of the academic world.

Disadvantages from a teaching perspective:
Whilst performing research and writing reports are essential academic skills, producing an annotated map is not a core skill, so teaching time may have to be dedicated to preparing students for this assessment.

Positive aspects from a student’s perspective:
Students are given an insight into the variety of roles a chemical engineer may perform after graduation outside the academic environment. They have the opportunity to develop key research skills, and understand the importance of clear communication between disciplines. Students may find creating an annotated map to be a more enjoyable method of assessment compared to an extended essay or examination.

Negative aspects from a student’s perspective:
Some students may struggle to see the relevance of a site investigation to their degree, and may find the production of an annotated map difficult due to a lack of familiarity with the procedure.
Students’ opinions on this choice of assessment technique:
I think performing a site investigation would be interesting as it gives students a chance to experience the role of a chemical engineer – a role they may not have considered previously. Producing an annotated map could be difficult if you have not had sufficient training in the exercise, as you would have to find a balance between including enough information and making it visually clear.
Source Analysis

Module specific because the source analysed likely contains information relevant to a certain topic.

**Description:**
A student analyses a text, often a primary source, to explain how and why it was written. The process often involves summarising the content and context, recording observations, identifying the intended meanings and posing any questions that remain after reading.

**Where is this assessment method currently used?**
School of Biology, University of Leeds

**What does it assess?**
- understanding of subject material
- creativity
- critical thinking
- research skills
- ability to engage with issues and construct arguments
- ability to think reflectively
- written communication skills

**Benefits from a teaching perspective:**
Students are encouraged to think critically about the source through analysis of its different components, which aids their understanding of the piece as a whole. Teachers can set a piece for analysis, or give students an opportunity to develop their research skills by finding an appropriate source.

**Disadvantages from a teaching perspective:**
Teaching staff may have to identify sources suitable for students to analyse, which could be time consuming.

**Positive aspects from a student’s perspective:**
Breaking down a source into components can help students to understand better more advanced concepts. Importantly, they gain experience in critical thinking, which is an essential graduate attribute.

**Negative aspects from a student’s perspective:**
The full analysis process can be time consuming, and students may fail to see the point of the exercise if the piece has already been established as a reputable source of information.
Students’ opinions on this choice of assessment technique:
Source analysis could be interesting if you have a particular interest in the topic covered, but otherwise could be boring as it could be very time consuming. It is a good way to practise important critical thinking skills.
Structured Chemical Examinations

Module specific, but could be synoptic as skills rather than knowledge are tested.

Description:
The Structured Chemical Examinations (SChemEs) method is designed to assess students’ generic, practical and laboratory-based skills in the final laboratory session of a module. Students spend five minutes at each of five stations, each of which is designed to assess a key skill area: Basic Techniques, Numeracy, Apparatus Assembly and Handling, Interpretive Exercise, and Information Management. Marks are given out of five for performance at each station, with an additional five marks awarded for preparedness in terms of equipment and dress standard according to instructions provided beforehand.

Where is this assessment method currently used?
Department of Pharmacy, University of Hertfordshire

What does it assess?
• understanding of chemical terminology and procedures
• safe handling of chemicals
• experimental planning and design
• interpretation of experimental data
• numerical and computational skills
• information retrieval
• problem solving
• time management and organisation
• oral communication skills
• creative thinking

Benefits from a teaching perspective:
Students are better equipped for graduate roles, as more focus is placed on the processes involved in as well as the end results of practical work. Assessment of students is relatively straightforward, with marks given out of five for each station, and each station can be carefully monitored.

Disadvantages from a teaching perspective:
Students are only given a short amount of time to demonstrate their practical abilities, and may struggle under the time pressure. The activity at each station must be carefully designed to assess the specified skill at an appropriate level, and marking guidelines must be carefully established to ensure each student is placed correctly on the 0-5 scale.

Positive aspects from a student’s perspective:
Students do not have to worry about being continuously assessed throughout their earlier lab sessions in the module, so can focus on developing their skills and understanding of
procedures. Ultimately, this means they are better prepared for graduate roles, where the end result is often not known. Also, students may feel more confident in their abilities if they know which particular skills are being assessed at each station.

**Negative aspects from a student’s perspective:**
It can be incredibly stressful for students to perform an unseen task in five minutes, especially knowing they are being assessed on their performance and have several tasks to perform. Students may struggle under the time pressure, so their final grade is not an accurate representation of their actual skillset.

**Students’ opinions on this choice of assessment technique:**
I like how this assessment method focuses on understanding of procedures, problem solving and time management, as these are important skills for graduate jobs both inside and outside the laboratory environment. However, the assessment could be quite a stressful experience given the very short time restraints, so I don’t think it is fair for this to be the only method of assessing practical ability in chemistry.
Supervisor Report

Module specific, but could be synoptic if the supervisor works with a particular group of students for an extended period of time.

Description:
The supervisor for a student working on a research project or placement will keep a record of the student’s performance, typically covering their punctuality, attitude to work, competency and, if applicable, role within the group. This information is used to assess the student either as a direct record or in the form of a written report.

Where is this assessment method currently used?
Department of Chemistry, Durham University

What does it assess?
- knowledge and understanding of their subject
- ability to solve problems by thinking creatively
- ability to work in a group
- ability to communicate clearly with their peers and supervisor in both oral and written forms

Benefits from a teaching perspective:
The knowledge, practical capabilities and efforts of each student are recorded as the project is taking place so the records give an accurate reflection of their progress over time. A detailed report provides proof of a student’s ability to demonstrate a particular skill (Editor’s note: the report will be useful if writing references for the student in the future).

Disadvantages from a teaching perspective:
Writing an accurate, personal report for each student can be time consuming and requires a number of staff acting as supervisors. A supervisor’s report may be biased depending on their level of involvement with the students and their work.

Positive aspects from a student’s perspective:
Students will receive credit without having to produce a piece of coursework or sitting an exam, which saves both time and stress. As the report is written over time, it can give a more accurate representation of their skills and abilities.

Negative aspects from a student’s perspective:
Students may feel they have not had an adequate opportunity to demonstrate all of their skills or abilities due to any variation in contact time each student may have with their supervisor. They may also feel that their supervisor’s report could be negatively biased.
Students’ opinions on this choice of assessment technique:
Being partially assessed from a supervisor’s report would relieve some pressure of having to write a perfect essay or score highly in an exam as it would give an accurate representation of your individual working style over time – but, as you can never be sure of what your supervisor will write, your final grade is out of your control.
Take-Home Examination

Can be either module specific or synoptic as the student is not required to memorise information taught over extended periods of time, only to understand it.

Description:
A take-home examination has a similar question format to a traditional examination. However, unlike a traditional exam students can take the exam wherever they like, and using any reference materials they wish. The only constraint is time: usually the questions are released and to be completed within a 24-hour time period.

Where is this assessment method currently used?
School of Performance and Cultural Industries, University of Leeds
School of Chemistry and Chemical Engineering, Queen’s University Belfast

What does it assess?
- subject understanding
- written communication skills
- problem solving skills
- critical and creative thinking
- research skills
- time management
- organisational skills in preparing for the exam

Benefits from a teaching perspective:
As students are not required to memorise information, all questions can call for higher level thinking and encourage students to work on their problem-solving skills. Logistically, the examination process is simpler: there is no need to set up an examination hall or hire invigilators. Students are free to make use of reference materials, as they would in the real world, but must plan how to do so in the time limit given.

Disadvantages from a teaching perspective:
Giving the students freedom to complete an exam wherever they want and with any resources means it is nearly impossible to prevent plagiarism or collusion between students. The exam paper may be more difficult to write: all questions must be sufficiently challenging for students with access to reference materials, so there cannot be marks available for simple knowledge recall.

Positive aspects from a student’s perspective:
Students feel less pressured to memorise facts so can focus on understanding the taught material. Sitting the exam in a familiar environment, and the relaxation of intense time constraints, will make students feel more comfortable – as a result they are likely to
perform better than they would in a traditional exam. This flexibility could be of particular help during busy examination periods.

**Negative aspects from a student’s perspective:**
Examinations can take much longer to complete, and this can be very disruptive if questions must be completed in one sitting or in a relatively short timeframe, such as 24 hours. Students must prepare relevant reference materials before the examination so they can be used effectively within the set time period.

**Students’ opinions on this choice of assessment technique:**
I like the idea of a take-home exam as it seems to alleviate the major stresses associated with traditional exams: you can sit the exam in a familiar location, with less intense time restrictions, and you do not have to worry about memorising everything you have learnt. However, I think it would be tempting to fall into the trap of spending too much time on the exam than intended, trying to get a perfect score.
Visual / Illustrated Essay

This is a module-specific assessment method, used in the school’s performance design module. One could suggest that, as there is a module of this nature in both second and third year, it is somewhat synoptic. Overall, it does help students with their ability.

Description:
This is reflective essay which relies heavily on an analysis of visual aspects, these aspects usually takes the form of photos which have documented the students practice but can also include video / audio material. This is used to assess the performance design module.

Where is this assessment method currently used?
School of Performance and Cultural Industries, University of Leeds.

What does it assess?
- creativity and understanding of human interaction through artistic work
- critical thinking
- independence and ability to be a self-starter
- ability to be a deep thinker
- ability to communicate thoughts orally and in written forms
- ability to be a reflective practitioners
- ability to work critically with knowledge

Benefits from a teaching perspective:
Can have a clear point of reference for the student’s analysis of their own practice, this makes it much easier to mark their work. Can allow to tutor to have a clear idea of how the work of the student has progressed over the course of the module.

Disadvantages from a teaching perspective:
This is marked using the mixed-mode marking criteria, which is separate from the criteria for written assignments, it might be difficult to distinguish an effective essay and an effective mixed-mode assignment.

Positive aspects from a student’s perspective:
Can make analysis easier and more focused, students don’t have to waste words describing what they created as they can just show it. Gives the student opportunity to explain their process, even if their final creative product didn’t deliver in the practical assessment, this essay allows them to gain marks for explaining their methods.

Negative aspects from a student’s perspective:
If the student forgets to capture the process as it’s ongoing, they can find themselves left with little material with which to write the essay. Sometimes certain processes cannot be
captured effectively through visual / audio means and still have to be described, which can be frustrating as it defeats the purpose of a visual essay.

**Students’ opinions on this choice of assessment technique:**
It does make it easier to reflect on design practice when there is an emphasis put onto visual material. However, I do think that a portfolio might be a better way to organise visual material rather than embedding it within an essay, then again organising it this way does reduce workload which is an important consideration.
Viva Voce

Synoptic regarding the student’s thesis.

**Description:**
A viva voce is an oral examination, generally focused around a student’s thesis. The student is questioned by two examiners: an internal examiner who is a member of academic staff at the university but not the student’s supervisor, and an external examiner who is usually a member of academic staff from a different university. A chairperson may also be present, often a member of academic staff from the student’s school, to ensure the examination is conducted in accordance with university procedures.

**Where is this assessment method currently used?**
Department of Chemistry, King’s College London

**What does it assess?**
- knowledge and understanding of their subject
- oral communication skills
- research skills
- problem solving ability
- engagement with relevant current issues
- ability to think critically
- ability to think reflectively about their work

**Benefits from a teaching perspective:**
This in-depth oral examination encourages the student to think deeply about their own work and its place within research around their subject. This prepares students for graduate roles in which they must be able to communicate ideas and explanations clearly.

**Disadvantages from a teaching perspective:**
The personal nature of each student’s viva requires lots of staff preparation, and can be very time consuming due to variation in length. Grading students fairly can be difficult due to variation in topic and examination style of individual examiners.

**Positive aspects from a student’s perspective:**
Students have the opportunity to discuss ideas and concepts of personal interest with academics involved in the field. It is a perfect opportunity to practise oral communication skills and creative thinking when answering questions, which are essential for graduate roles. In preparation for their viva students research and revise their topic thoroughly; during this process they improve their subject knowledge and research skills.
Negative aspects from a student’s perspective:
Being questioned by experts on the validity and impact of their own work can be intimidating for students. As a result of stress, they may struggle to communicate their ideas clearly, even if they have prepared for the examination.

Students’ opinions on this choice of assessment technique:
I find the idea of a viva intimidating, but understand it is important to practise communication skills, and to acknowledge the weaknesses as well as strengths of your work. I think it would ultimately be beneficial to discuss your work with experts, as they will help you to improve.
Written Coursework

Module specific.

Description:
Pieces of coursework, such as short essays or exam-style problems, are submitted at specified intervals throughout the module. The work is assessed, then written and oral feedback given to students in small groups during an hour-long tutorial session. This type of assessment often contributes a small amount to a module predominantly assessed by an exam (for example a module may be assessed by 90% unseen exam and 10% coursework, consisting of two tutorial sheets).

Where is this assessment method currently used?
School of Chemistry, University of Leeds

What does it assess?
- knowledge and understanding of taught material
- problem solving
- critical thinking
- research skills
- time management
- written and oral communication skills
- ability to engage with issues and construct arguments

Benefits from a teaching perspective:
Submission of coursework provides a chance for students to demonstrate their understanding of the taught material and their progress to be monitored. This allows for identification of common mistakes and areas of understanding amongst students so that future teaching can be improved. In tutorial sessions, students can give verbal feedback about the module / teaching. Small group tutorials mean that marking is distributed between members of staff.

Disadvantages from a teaching perspective:
Exam-style questions must be prepared in advance of the examinations for release to students. Organisation is required between modules running simultaneously to avoid deadline clashes. Coursework must be marked and feedback given to students in a tutorial session promptly for maximum benefit. Students may not attend organised tutorial sessions, which can be frustrating for those delivering the sessions. As the questions are not answered under examination conditions, there is a higher chance of students colluding.

Positive aspects from a student’s perspective:
Students get an opportunity to approach exam-style questions before the examination, which can help them prepare for an exam as they will better understand the type of answer
required. Written feedback is given on submitted work for future reference, and discussions in tutorials provide a different outlook on concepts to gain deeper understanding. These also provide an ideal opportunity to ask questions. It is reassuring to have marks going towards a final grade before sitting the examination for the module.

Negative aspects from a student’s perspective:
Work must be submitted before the deadline, and if this method of assessment is used in lots of modules simultaneously, it could feel like lots of work throughout the semester. There can be lots of pressure to get a high score because the mark contributes to the overall module grade.

Students’ opinions on this choice of assessment technique:
I appreciated the opportunity to gain marks towards my overall grade before the exam, but knowing there was coursework to submit on a weekly basis (across several modules) felt like a large amount of work. Tutorial questions are typically more complex than exam questions and take much longer to complete, but finding these questions difficult made me worry that I would find the exam difficult too.
Written Examination (Unseen)

In these examples module specific, but could be synoptic.

**Description:**
Usually involves a set of questions under silent conditions with a fixed time period to test knowledge and understanding of certain topics. Questions vary in length and style, for example, shorter mathematical problems to longer essay-style questions.

**Where is this assessment method currently used?**
Schools of Chemistry, Biology and Education, University of Leeds.

**What does it assess?**
- knowledge and understanding of certain topics
- written communication
- ability to reproduce information given in lectures
- ability to apply the knowledge in unseen situations
- problem solving skills
- ability to use logic and maths skills to solve problems, seen and unseen
- independence (in exam preparation and during the examination)
- *possibly* critical thinking

**Benefits from a teaching perspective:**
Often relatively quick to mark questions and give feedback to students. Exams marked fairly and consistently with a mark scheme. Academic staff can tell the level of understanding of a certain topic fairly easily this way.

**Disadvantages from a teaching perspective:**
Time taken to mark examinations, to produce the questions for the exam and to teach the students specific knowledge. (Editor’s note: Time taken to mark the examinations, often during a short time window. Only get an insight into students’ understanding after teaching has finished. Examination questions often need to be written before teaching is completed.)

**Positive aspects from a student's perspective:**
Each student is marked according to a scheme and so marked fairly and consistently. No plagiarism and little cheating occuring. It creates a competitive environment between students, which may cause them to perform better. Students can help each other learn and understand up to the exam itself, building good relationships. If students perform well in exams, this can be a big confidence boost. Ensures student has maximum learning. Pressure of exams can push a student to excel.
Negative aspects from a student’s perspective:

Very stressful, relies on a few hours’ excellent performance which can put pressure on students causing them to underperform even if they have the capability to achieve a high grade. The pressure of the exam also may cause emotional turmoil in the individual, having an effect on their mental health. Sometimes not all subjects from lectures are covered and students can perceive this as unfair. For example, perhaps one student knows thoroughly about magnetism and not so much about conduction and another student understands conduction and not magnetism, and then it is ‘luck’ which of the two comes up on the exam paper. Takes no account of students’ preferred areas of study within the discipline curriculum. Students may think that they are not intelligent if they cannot perform well in exams, especially in a subject where the mark is heavily dependent upon exam alone. If a student performs badly, it may have a long-term effect on their future. Preparation extremely time consuming – you can always do more revision. Focuses on memorisation.

Students’ opinions on this choice of assessment technique:

Exams are an effective way to gauge a students knowledge and understanding of a particular topic. However, considering the disadvantages to students, exams are far too common, and used as a large chunk of assessment. In chemistry, modules are mostly at least 80% exam based, some are even 100% written examination.
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