



The
Active
Collaborative
Cookbook

B **I** **L** **T**

About the Cookbook

ACTIVE LEARNING -

Actively engaging with course material rather than passively listening or watching something. Active learning helps students to gain a better understanding of information and concepts through engaging higher order skills like problem solving, analysis and synthesis.

COLLABORATIVE LEARNING -

Working with other students to achieve a shared goal has a number of benefits. Students develop key communicative and interpersonal skills, are exposed to a greater variety of view points and ideas, and make personal connections with other students, which has benefits for wellbeing and helps develop a community within faculties.

Getting active, collaborative learning into teaching can be difficult. It might require more time and effort from the instructor, and students can find it hard to engage with new teaching styles. But the potential benefits for students are massive, and university teaching is slowly moving towards more active and collaborative learning as the new normal.

The aim of this cookbook is to provide a little bit of inspiration for activities and tools that can be used to integrate active and collaborative learning into teaching effectively.

THE RECIPES

These aren't step-by-step instructions like a normal recipe. They're more like a 'jumping off point' - inspiration for the kinds of ways active and collaborative learning can be integrated into teaching.

THE INGREDIENTS

These are digital tools that can be used to facilitate the activities. I've only included tools that have been used and recommended by lecturers and students. Bear in mind, however, that things are changing constantly and availability and pricing may change with time. Not all tools will be officially supported by the University or DEO.

Why Active & Collaborative?



This is Bloom's Taxonomy, a framework to classify learning activities by the level of cognitive complexity. The most effective teaching takes place at the highest levels of the taxonomy - it's these areas that will give students the skills they need to succeed at university and adapt effectively to life beyond Bristol like synthesis, critical thought and problem solving. Active and collaborative learning, by helping students to actually use what they are learning, and interact with each other pushes teaching beyond the first two stages.

It makes learning more interesting and engaging and allows students to develop a passion and a true understanding of their subject area and how it relates to the wider world.

Student Feedback from the 2019/2020 Digital Experience Survey:

"Introduce **more aspects of digital teaching** than just presentations (which is the only thing they use now)" - *Faculty of Arts*

"More **interactive quizzes** in lecture to check our understanding of that lecture or previous lectures" - *Faculty of Life Science*

"(Use) Anonymous **polls and quizzes** in lectures and seminars" - *Faculty of Social Sciences and Law*

'Increase our **digital literacy skills** so we can navigate and make the most out of the platforms that are known to be effective' - *Faculty of Arts*

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I want students
to...



interact
with a
lecture
or
seminar

Polls



Polling students is a quick and easy way to get instant feedback, and can help to shape a module or lecture. They can also be used effectively as an active learning tool, helping to break the ice and get students discussing their opinions.

Preparation



Implementation

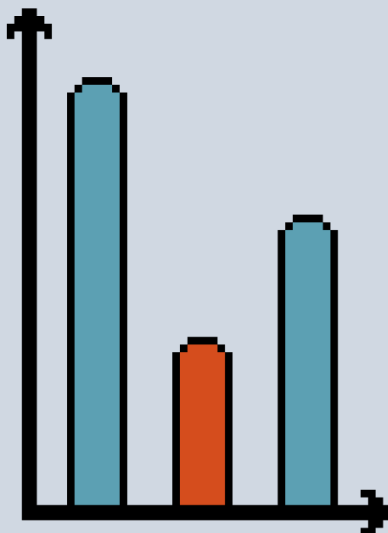


Ingredients

PolLEv *p. 33*

Slido *p. 33*

Turning Point *p. 34*



DISCUSSION

When a subject contains competing theories, methodologies or hypotheses, polling is a great way to get students to think about which side of the fence(s) they fall on and find out what other students think. This information can be used to lead into a debate activity where students have to defend their stances, or left for students to think over in their own time.

CHOICE

Polls can be an easy way to gather topics to cover during a revision session, or decide which past exam question to explore, or could be used to decide the structure of a seminar session or even a module. The degree of flexibility within units varies hugely but allowing an element of choice for students will increase engagement and develop a sense of community and partnership.

FEEDBACK

Using polls effectively takes the guesswork out of student opinion. Are lectures too fast? Is the content confusing? Have you enjoyed the use of polls in lectures and seminars?

Questions can be posed to students for near instantaneous answers, providing valuable data on what works and what doesn't within units.

Quizzes



A simple multiple choice quiz can be the difference between a student falling asleep in a lecture or engaging with the content. They're fun, and introduce a little light competition to learning, but can also be incredibly useful in highlighting gaps in understanding.

Preparation



Implementation



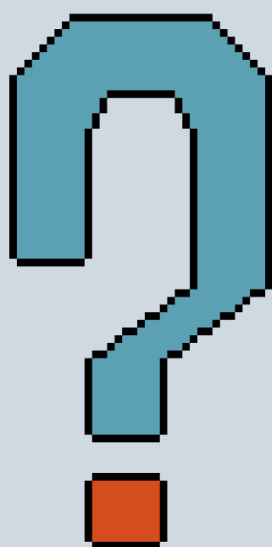
Ingredients

Learning Catalytics *p. 30*

Slido *p. 33*

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CHECKING UNDERSTANDING

Setting a quiz can give students and the lecturer an idea of their understanding of anything from a single definition to an entire unit.

Students can use their scores to identify where there are gaps in their knowledge and what they need to work on. Lecturers can identify areas where the whole cohort may lack understanding and target these.

Setting effective questions can give students an easy way to understand and process key concepts.

CONSOLIDATING KNOWLEDGE

Having information delivered with no way to use it makes it difficult to commit to memory. Providing an opportunity to use that knowledge, no matter how simple, will increase the chances of students understanding and remembering information. Quizzes could be provided as a revision resource, or used within lectures and seminars to break them up into more manageable chunks.

ANYTHING ELSE...

Quizzes are a super simple way to get students learning in a more active way. They don't necessarily have to relate directly to the lecture content, as long as they get students thinking and using parts of their brain that might not usually be used in a traditional lecture/seminar.

Q&As



A Q&A allows flexibility for the students to ask whatever they like but it does mean the lecturer doesn't have complete control of topics covered. Using an anonymous system (digital or otherwise) can alleviate some embarrassment that might stop students from asking important questions.

Preparation



Implementation



Ingredients

Padlet *p. 32*

Slido *p. 33*

TROUBLESHOOTING

How often is 'Does anyone have any questions?' followed by silence? Q&As are an excellent way to find areas where students are confused, at the end of a lecture or seminar or in a dedicated revision session. Digital tools mean that students who might otherwise not feel comfortable speaking up in a lecture or seminar can still have their voices heard. Seeing questions posed by other students might help students formulate their own and prevent the same questions being asked over and over again.

JUST Qs

The questions don't always have to be answered by the lecturer. Students could submit questions which (with a little moderating) could then be assigned to groups to answer or provided as a student-generated quiz or practice exam paper. You could even flip the Q&A and provide answers to which students have to suggest questions for, Jeopardy-style.

PEER FEEDBACK

Q&As can be a good way to softly introduce students to peer feedback. Giving judgements on others' work can be uncomfortable especially if you aren't used to it. Having questions asked can still help to highlight areas for improvement but in a more conversational way. Sticky notes are an easy, hassle-free way to do this.



I want students
to...



work on
a
collaborative
project

Collaborative Documents



Getting students in one place for a group project can be difficult. Using digital tools means that students can work together but don't need to be in the same room or even in the same country. It also allows a lecturer oversight into how a project progresses.

Preparation



Implementation

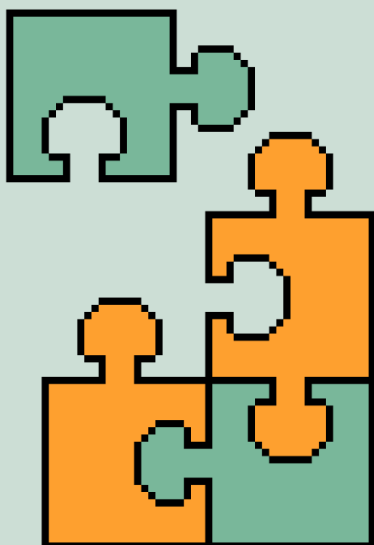


Ingredients

Confluence *p. 29*

Office 365 *p. 30*

OneNote *p. 31*



STRUCTURED

If the work to be completed is fairly prescriptive, or needs to be done in a specific way, students can be given a template to work from. Each group will have their own copy of the template to work on and modify together.

Space can be left blank for feedback to be added at a later date, or inbuilt tools such as commenting can be used. Using comments means feedback can be tracked, so when later revisions are seen, you can tell if feedback has been acted on or not.

UNSTRUCTURED

If the work is more free-form, such as a presentation or poster, you can simply point students in the direction of tools available and allow them to make their own choices.

If you want consistency and the ability to oversee all students' work in the same way, students could be asked to choose one tool for everyone to use.

Feedback can be left on an ad-hoc basis, or at structured points. Feedback isn't limited to lecturers or instructors either – if appropriate, groups can share work with each other for comments and suggestions.

Idea Spaces



Students don't have to be directly working together to collaborate. A simple way to get ideas moving around between students is to have a space where they can put images, text, papers, comments or whatever else, in one place. This creates a digital pinboard that can be used as inspiration for work.

Preparation



Implementation

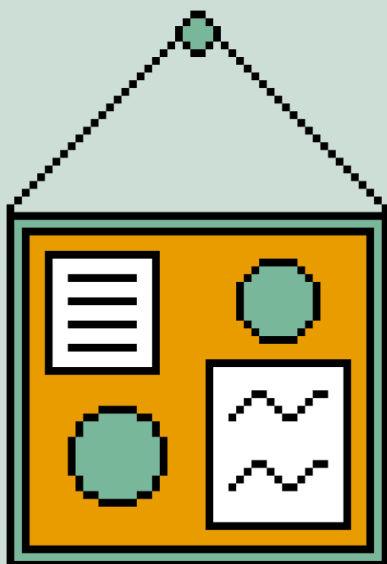


Ingredients

Google Docs p. 30

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DIGITAL

There are two ways this can be done. The first is giving students their own space, that can be accessed by other students. As a module or project progresses, students can use this space to store anything they might find useful, creating a digital portfolio of useful revision or reading materials. Other students can then view these to get ideas of their own, and make links between existing ideas.

The second is to have a single board for a group or even entire cohort to use. This creates a small community of students sharing knowledge and ideas. The lecturer can help out by adding 'jumping off points' and moderating content to ensure it's relevant and helpful.

It can then be used to inform discussions or other work in seminars.

OLD SCHOOL

This doesn't have to be digital, either. It's a bit harder to implement, but if teaching occurs in the same place regularly, you can do the same idea with physical pinboards/whiteboards. Students can use these to develop their ideas and save useful notes and articles, then demonstrators and other students can engage with them, adding comments or sticky notes.

Collaborative Workspaces



Workspaces add another dimension to collaborative documents by including other tools such as assigned roles, to-do lists and schedules that add structure to group projects. Some may only be valuable for longer projects as you and the students will need time to get used to the way it works.

Preparation



Implementation

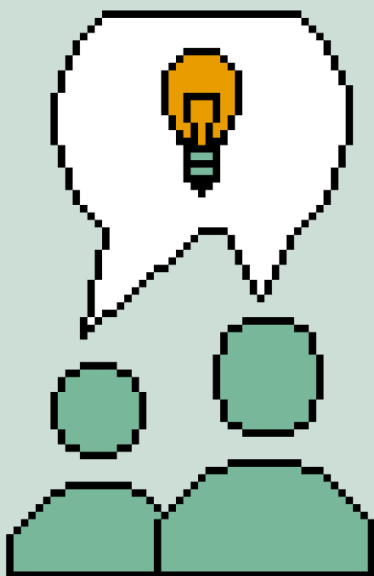


Ingredients

Confluence p. 29

Google Docs p. 30

Jira p. 30



AUTHENTIC ASSESSMENT

To be authentic, some part of assessment needs to reflect work after university. This could be in the output the students produce or by introducing the project as a brief for a 'client'.

Digital workspaces allow the students to work in an authentic way too, as they are used extensively in industry to complete team-based projects.

It can be difficult to frame assessment as authentic in a genuine way. Using industry-standard tools makes this much easier, and means that alongside the skills they gain in completing the project work, students are gaining invaluable experience and developing digital skills that are highly sought after by employers.

At the same time, skills like teamwork, communication and time management will be developed through use of the tools baked into these workspaces. This gives an opportunity to give feedback on the way that students have worked, not just their final output.

Using these tools is a learning curve both for lecturers and students, but both will gain huge value from these being implemented effectively.

I want students
to...



produce
digital
resources

Audio



Producing audio resources requires little equipment and no expensive or complicated software. It's great to get students having conversations, and working out ways to communicate effectively without visual aids. It's fun and creative but doesn't have to get too complicated and time consuming.

Preparation



Implementation



Ingredients

Audacity p. 29

PODCASTS

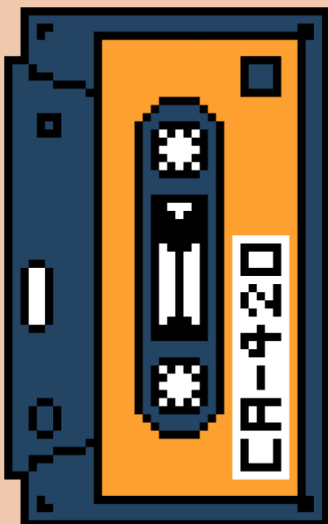
Podcasts sit in a Goldilocks-zone between entertaining and informative. They're essentially just a semi-structured conversation between two or more people.

To ensure it's useful to the students, you can give them specific questions to answer, or content that must be covered, or provide pre-reading to be discussed. Getting the students to submit a plan or rough script alongside the podcast helps to make sure they plan adequately and that talk time is shared evenly.

In order to produce an effective podcast, students will need to do in-depth research, work well as a team and communicate clearly.

AUDIO-TOUR

If you really want students to get stuck in to researching an area, they could produce a museum-style audio-tour. You 'curate' an exhibition with a certain number of exhibits, which don't have to be physical objects, they could be theories or papers or concepts. The students are then asked to produce an audio track that would give background information and analysis on the exhibits to a 'visitor' (who should be a specified type of audience).



Video



Although more complicated than audio resources to produce, videos provide far greater creative freedom and allowing a subject to be explored in greater depth. Videos are also a lower-pressure, lower-anxiety alternative to presentations, whilst developing broadly the same skillset.

Preparation



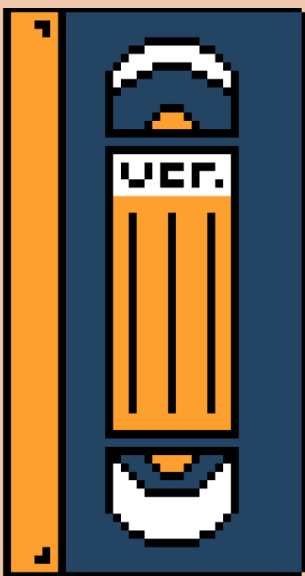
Implementation



Ingredients

Lightworks p. 31

Shotcut p. 33



REVISION VIDEOS

Many students turn to YouTube and other video services to find help in understanding key topics during their revision.

Producing these videos themselves is even more powerful, and means the students are generating a library of resources they can turn to when they get stuck.

There's loads of different formats a revision video could take, which gives students freedom to do what they are most comfortable with.

You could ask students to summarise a lecture, a paper, or give them a specific topic or question to answer within a specific time limit.

DIGITAL STORYTELLING

Digital storytelling is a way for students to tell a personal story through a video format. They usually involve still-images with voiceover as these are relatively simple to produce.

The idea is for a student to explore a subject through their own personal experiences. It could be within university, or outside. This helps them make a stronger connection with their subject area by bringing in their own sense of identity. Usually digital storytelling is workshopped collaboratively, then videos are produced individually, before being shared as a group.

Visual



Even if it's only a static page being created, it's still creative, and uses skills that students might not use otherwise, which aids memory and understanding. It's easy to make the task authentic too, as creating digital resources is going to feature in nearly any career.

Preparation

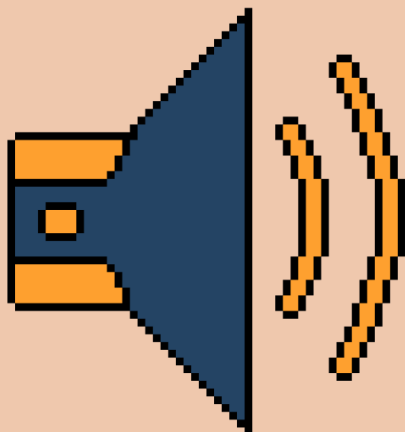


Implementation



Ingredients

Google Docs	p. 30
Office 365	p. 31
Paint 3D	p. 32
Paint.net	p. 32



INFOGRAPHICS

It takes a lot of thought to turn raw data into a useful infographic. Infographics are representations of information that focus on representing data visually, using as little text as possible to increase clarity and impact.

Students could be asked to find their own data to answer a given question or explore a topic, or be given (or produce) a dataset to analyse.

Condensing data down to the key information is a critical skill for students, along with then displaying that in a way which is visually appealing and clear.

POSTERS

Posters can be created for print, digital platforms, or both. Posters allow more room to display content knowledge than infographics as you can include lots more text and complicated figures.

A poster could be anything from the traditional scientific poster, with work being presented at a mock conference, to a piece of work designed to engage the public in an issue, or to be used in schools to educate children. The audience and the context are massively important, and change the kind of skills and thought processes students will need to use to produce effective work.

I want students
to...



I learn
through
collaboration

Discussion



For students to work collaboratively, they need to be able to share ideas and information with each other. But effective discussion doesn't always come naturally, so it's important to provide some facilitation, to make sure students get what they need to out of a discussion.

Preparation



Implementation



Ingredients

Students

THINK, PAIR, SHARE

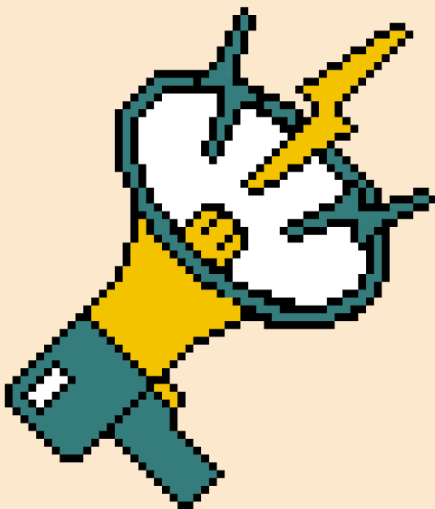
Going straight into a discussion without time to marshal your thoughts can be tricky. Think, pair, share allows discussion to be built up slowly. First, students are given time to think about a topic or question on their own, doing some research if they need. Then, they work in pairs to share and compare ideas. Finally, as a pair, they present what they have come up with to the other pairs in the group, followed by open group discussion.

This takes some of the stress and anxiety out of group discussions for people who might not otherwise be confident, and means that most students should have better developed their ideas by the time the group discussion is opened up.

ASSIGNED LEADER

It's only a small change, but assigning roles in a discussion can add enough structure to make them much more productive. You can split a discussion into different sections, and have specific students lead different sections of the discussion. They can prepare beforehand so they are the 'expert' on a certain area. This helps to even up talk time and lets the students moderate the discussion and keep it on track.

You could also run discussions like a political debate, with an unbiased moderator, and several students or groups representing different stances.



Production



Getting students talking is one thing, and it can be very productive. But how do you ensure that they are learning what they need to? Well thought out collaborative tasks can be used to facilitate learning and turn useful discussion and debate into something tangible.

Preparation



Implementation



Ingredients

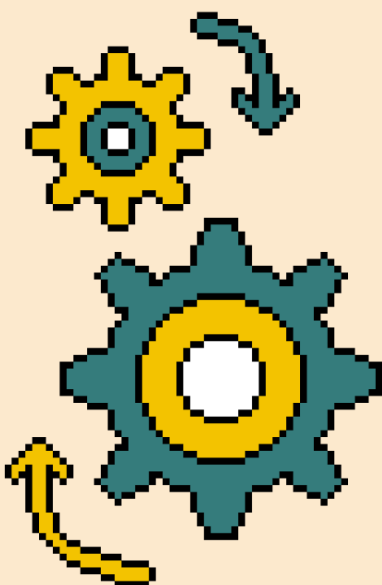
Students

JIGSAW

You create a jigsaw task by splitting up a topic into smaller chunks. Groups of students (or individual students) are then assigned a particular chunk. They have to research their area, then present it back to the group, through a presentation, or something else like a video, poster or report. All of the students are therefore reliant on the other groups to bring together the complete picture when all of the pieces of the jigsaw have been created. It means a huge topic can be covered in much less time, and students are teaching each other in way that doesn't have to feel forced.

SNOWBALL

Another way to get different groups of students collaborating is to use an iterative process. A task can be split into separate stages, which add together to produce a final outcome. Each group completes the first stage, then gives what they have done to another group who completes the next stage and so on. At each stage, students can highlight what is missing from what they have been given for them to complete the next stage properly. This means they are giving peer feedback, but also can have an instructor or other group fill in the gaps, so they aren't struggling because the previous stages haven't been completed properly.



Revision



Revision can be a time when students would benefit from collaborative working the most, but it's almost always a solitary affair. Introducing collaborative revision techniques throughout the course can give students more tools in their arsenal when it comes to preparing for exams.

Preparation



Implementation



Ingredients

Students

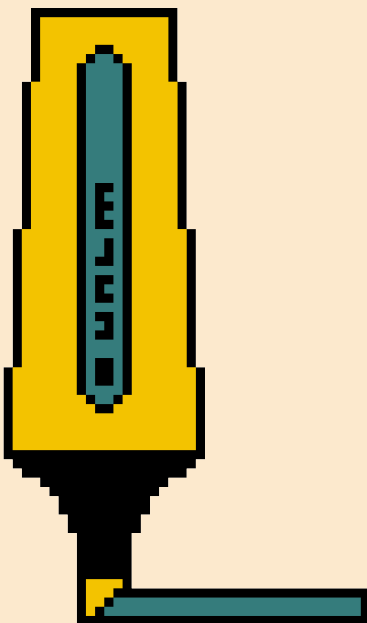
GAMES

A lot of simple games can be easily adapted into useful revision exercises. A good example is Taboo - students produce a list of definitions/concepts to be explained, and a list of 'taboo' words that can't be used. Students then have to explain as many of the concepts and definitions to other students as quickly as possible without using the taboo words. It helps students gain better understanding of a topic, and rely less on rote-learned text book definitions. Other easy games to adapt are Memory and Articulate but you can get creative (or help your students get creative!).

QUICK SUMMARIES

Students can sometimes be faced with enormous reading lists, but can work together to make the task of getting through them easier.

One way to do this is by getting students to produce abstracts. First students are given copies of different papers or resources, and have to go through and highlight what they think the key information is, in a certain amount of time. They then pass this on to another student, who has to write an abstract for the paper, again, timed, but can only use information that has been highlighted. The abstract is then passed on to another student who has to read the original paper, and give feedback on the abstract and fill in any missing details to make a complete summary of the paper.



I want students
to...



give
peer
feedback

Formative



It's a common complaint that students don't feel they get enough formative feedback. Equally, adding even more marking to the workload for staff is often not feasible. With peer feedback, students get more personal feedback to feed into summative work with less input needed from staff.

Preparation



Implementation



Ingredients

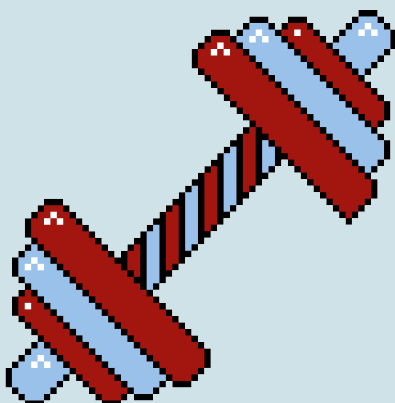
Confluence p. 29

Google Docs p. 30

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Padlet p. 32



PEER REVIEW

If students are completing an academic report or essay, peer feedback can be given as a double-blind peer review. This is more likely to work on only a small section of a report, with a tight word limit.

Digital tools can be used to add in-line comments to the work directly, or the feedback can be given in a table with line references. The important thing is that both of these allow the student receiving feedback to give a response – either a change, or a comment on why they haven't made a change. Having this work relate directly to upcoming summative work, and explaining the importance of peer-review and responding to feedback will increase engagement. The quality of feedback given, or responses to feedback could also provide a small portion of summative marks.

STRUCTURED

Alternatively, students can be given a form to complete to structure their feedback on work. This could be an online form, paper, or a document with specific questions to be completed. This ensures consistency for each student and help students who are struggling to provide feedback. It can be fine-grained, and only done once or twice, or more general, but completed by multiple students for as much data as possible.

Summative



Introducing an element of peer marking to students' grades can be difficult. However, it gives students a much deeper understanding of the marking criteria, and a greater ability to be self-critical and reflect on their own work.

Preparation



Implementation



Ingredients

Confluence p. 29

Google Docs p. 30

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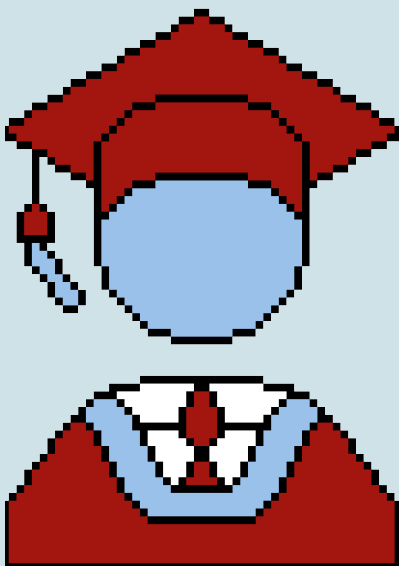
CRITERIA-BASED

Especially when first introduced, giving students tight structure can make peer feedback more effective and accurate. The marking criteria can be split into short-answer questions, yes/no questions or sections marked on a numerical or qualitative scale. It's best to have a mix of all three. This could be on a document or an online form. A final mark can then be produced, with the previous answers used as justification.

If you want finer control over the marks students are given, you could design a spreadsheet template, with formulas that calculate a mark based on different weightings for different areas. The students can give the work 'scores' for different criteria, which will combine automatically to produce a mark.

STRUCTURED

To allow students to spend more time on peer-assessment and ensure grades are well reasoned, a short piece of writing can be produced to justify marks. This could begin with criteria based questions, followed by a more open-ended evaluative writing piece where the student can reflect on the strengths and weaknesses of the work, and suggest improvements. This can contribute to the marker's own final grade which would then reflect their reflective and critical ability.



Overseer Board



Although an overseer board doesn't require any digital tools, it's included here as it's a way of introducing peer feedback into group work. It benefits both those giving and receiving feedback and as an added bonus is another way to introduce authentic learning.

Preparation



Implementation



Ingredients

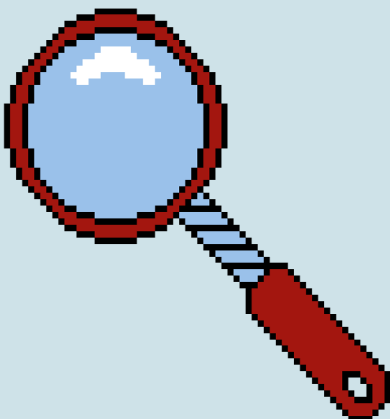
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PEER FEEDBACK IN GROUP PROJECTS

The idea is that, during a project, each group has their own board of overseers, primarily made up of other students. It could be all the members of another group or a mix of students from other groups. It can also include teaching assistants or lecturers to ensure feedback is appropriate and useful.

Each group will meet with their overseer board at pre-agreed points during the project, where they will present to them (formally or in an informal discussion). This can lead into further questions so the overseers can get a complete idea of how the project is progressing and how the team are working together and then give detailed feedback.

This works for the group being overseen as they get multiple chances for feedback to shape their project as it progresses. It's also a chance for feedback to be more discursive and flexible. And, of course, it's authentic as students gain practise in producing under supervision and presenting/responding to criticism.

Framing the overseers as a board helps give them confidence to give constructive feedback. Importantly, it allows the students on the board to see how other groups are working, and feed that back into their own group work.

I want to...



organise
a
webinar

Online Lecture



A lot of students watch lectures online through Re-Play. But delivering a lecture online can be more than just recording it and uploading it. It's a great chance to integrate active learning activities that might be more difficult in a traditional lecture theatre.

Preparation

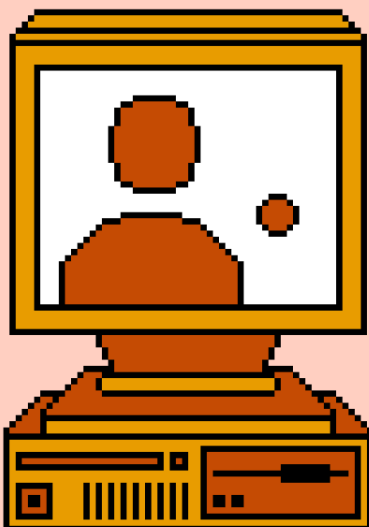


Implementation



Ingredients

Blackboard *p. 29*
Collaborate



TIMING

With an online lecture, you haven't got a captive audience in the same way as a physical lecture theatre. Distractions are literally a click away. Thinking about timing can help to keep students' attention. Try to keep any chunks of content delivery to 20 minutes or less. You can break it up with a quick discussion task, a video, or a student feedback activity like a quiz or poll.

GET CREATIVE

An online lecture makes it a lot easier to reduce reliance on the black text on white background powerpoint. It's easy to send students links to content like videos, articles and papers and include or create more interesting media. You can also experiment with different presentation structures, use interactivity, and create live content through recording a screen or whiteboard.

INTERACTIVITY

Although digital teaching can put up barriers, it can also help to take them down. Collaborate allows students to raise their hand and ask questions, or you can use social media to allow students to interact with each other and with the lecture. It's easy to get instant feedback, and make teaching more discursive.

Online Seminar



Online teaching doesn't just have to be for lectures. Technology can bring students together and allow them to share ideas and research without some of the awkwardness that a physical classroom can bring. It allows a lecturer to take the attention away from themselves and onto the subject matter.

Preparation



Implementation



Ingredients

Blackboard *p. 29*
Collaborate

INTEGRATE ACTIVE LEARNING

If students are participating in online teaching, it means including digital active learning activities is easy and natural. Smaller activities are great ways to break the ice and facilitate discussion, and longer activities like peer marking can be used to scaffold group work.

Collaborate provides an easy way to split students into work groups which can make it easier to assign tasks and oversee progress in large groups of students. Collaborative workspaces allow oversight, and for the lecturer to give real-time feedback as work is being produced.

COLLABORATE

Although splitting students into smaller groups can be effective, digital tools also allow the entire group to work together, which could be difficult in large physical classes. Tools like Padlet or collaborative documents create valuable resources that the entire class can contribute to. The ability to contribute without having to speak up can be great for evening talk-time as it allows students who are less confident to contribute. It might help include viewpoints and voices that would otherwise go unheard.



Ingredients

I WANT STUDENTS TO INTERACT WITH MY LECTURE OR SEMINAR...

Learning Catalytics	<i>p. 30</i>
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AUDACITY

www.audacityteam.org

FUNCTIONS: Audio Digital Resources

PRICING: Free

Audacity is a fantastic, free audio editor. It looks a bit outdated, and it can take a little while to get used to using, but for basic tasks it's all you'll need. Trimming audio files, adjusting pitch, tempo and volume and combining files together can be done with the click of a button. There are plenty of add-ins available too for more complex tasks. If setting an audio production task as assessment, make sure students have a risk-free opportunity to get used to the software first. It does require installation, so students will need their own laptop or computer, or access to university computers that have it installed.

BLACKBOARD COLLABORATE

www.blackboard.com

FUNCTIONS: Online Lectures; Online Seminars

PRICING: Free

Blackboard Collaborate is an online seminar tool built in to Blackboard. It's essentially a web-conferencing program like Skype, but with specific features for a learning context. Students can raise their hand digitally, participate in chat, and let the lecturer know how well they are understanding the content. As a lecturer you can share video, or your screen, or use other features like a shared whiteboard. It's packed full of different features so it's best to have a play around and see the kinds of things you can do with it. It doesn't require any special software to run, but might need students to have a relatively fast internet connection.

CONFLUENCE

www.atlassian.com/software/confluence

FUNCTIONS: Collaborative Workspaces; Collaborative Documents; Peer Assessment

PRICING: Free

Blackboard Collaborate is an online seminar tool built in to Blackboard. It's essentially a web-conferencing program like Skype, but with specific features for a learning context. Students can raise their hand digitally, participate in chat, and let the lecturer know how well they are understanding the content. As a lecturer you can share video, or your screen, or use other features like a shared whiteboard. It's packed full of different features so it's best to have a play around and see the kinds of things you can do with it. It doesn't require any special software to run, but might need students to have a relatively fast internet connection.

GOOGLE DOCS & SLIDES



docs.google.com

FUNCTIONS: Collaborative Documents; Idea Spaces; Visual Digital Resources; Peer Assessment

PRICING: Free

Docs and Slides are Google's answer to Microsoft Word and PowerPoint, respectively. They aren't quite as full featured, but you don't need to download anything to run them, they just work in a browser. Multiple students can work on the same document at the same time and see the changes being made instantaneously. You can add line-specific comments which can be responded to, allowing tracking of feedback. There's a huge library of add-ons available which increase functionality, like the ability to add mathematical notation or give verbal feedback.



JIRA



www.atlassian.com/software/jira

FUNCTIONS: Collaborative Workspaces

PRICING: Free (for teams of <10), paid plans per user available

Jira is team management software that essentially works as a shared to-do list. Students create tasks, then assign them to different people to complete, who then mark them as 'To-Do', 'In-Progress' and 'Done'. Roadmaps can also be created to determine how the project will progress over time. Detailed reports and data on who has completed tasks, and when help students visualise workload and plan their time, whilst also allowing you to oversee their progress and have productive discussions in progress meetings.



LEARNING CATALYTICS



www.pearson.com/uk

FUNCTIONS: Quizzes

PRICING: Fixed price per student for a 6-month or 12-month subscription

Learning Catalytics is by far the most in-depth software for creating quizzes. Questions can be posed in a variety of formats, with accompanying images and other media. The main advantage of Learning Catalytics is the collaborative features. Students can be placed into teams based on their answers to questions to facilitate peer learning and discussion. A map of the room can also be generated, showing where students are struggling, so they can be paired up with other students to help their understanding, or given extra support. As with the other tools, it only requires an internet-connected device for students to participate.

LIGHTWORKS

www.lwks.com

FUNCTIONS: Video Digital Resources

PRICING: Free (paid plans available, but features not likely to be relevant)

An advanced video editor that is relatively simple to use with a bit of practise. It's professional-grade software, available for free, with the small limitation on output files, which shouldn't be an issue. The timeline based interface will take a little time to figure out but it's surprisingly simple and well designed. If students want to get more creative, there are huge libraries of effects that can be used. It's available for all commonly used operating systems, but might require fairly powerful hardware to run. If students will need to be editing video, it might be possible to get it installed on some university computers so all students are able to use it.

MICROSOFT OFFICE 365

www.office.com

FUNCTIONS: Collaborative Documents; Visual Digital Resources; Peer Assessment

PRICING: Free (included as part of University email account)

You're probably familiar with Microsoft Word and Powerpoint already, but you might not have used the online versions. They have limited feature sets, but allow real-time collaborative editing like in Google Docs. Comments can be added, and changes tracked to see who has contributed to the document. Documents can also be downloaded into the full desktop versions, with changes still affecting the online version (although not in real time). Most UoB PCs will have Office installed already, and all students and staff have Microsoft accounts, so all students will be able to contribute.

MICROSOFT ONENOTE

www.onenote.com

FUNCTIONS: Collaborative Documents; Idea Spaces; Peer Assessment

PRICING: Free (Included as part of University email account)

OneNote is an application of Office 365 that allows the creation of shared notebooks and to-do lists. It's very basic as a word processor, but it's really easy to collaborate on, and to add images and other media, making it great as a digital idea space. There's a blog on the website with loads of ideas of how to use OneNote in education.

PADLET



www.padlet.com

FUNCTIONS: Q&As; Idea Spaces; Peer Assessment

PRICING: 30 day free trial. Afterwards individual lecturer and institutional plans are available.

Creates a blank space where text, images, links and documents can be added. These can be interacted with through comments and reactions. Can be used for Q&As with students posting questions which can be answered directly on Padlet, or discussed and answered out loud or at a later date. Alternatively can be provided to a group or class as a collaborative idea space, with images and files added instead of just text. Summaries can be saved and shared.



PAINT 3D



N/A

FUNCTIONS: Visual Digital Resources

PRICING: Free (installed on most University computers)

Although Microsoft Paint was never really a serious image editor, the newer Paint 3D is surprisingly well-featured and very easy to use. It might not be the best program for making complicated graphics, but for simple diagrams and logos it's fantastic. It's designed to work well with touchscreen tablets particularly. It's installed on all University PCs and free to download so all students should be able to use it.



PAINT.NET



www.getpaint.net

FUNCTIONS: Visual Digital Resources

PRICING: Free

Paint.net is a slightly less feature rich alternative to Photoshop, but with the huge advantage of being free and being much easier to use. It allows editing of images and creation of diagrams, posters or other graphics in a simple to use package. There are also loads of add-ons available online that really stretch what you can do. Students will have to install it on their own computers/laptops as it is currently not available on university computers.

POLLEVERYWHERE

www.polleverywhere.com

FUNCTIONS: Polls

PRICING: Free (limited class size, some features locked), Departmental and University-Wide paid plans available with all features and unlimited class size

You can create polls with multiple choice or open response type answers alongside a handful of other features. The results are presented in live charts that can be displayed from the website or embedded into a presentation. Students can participate using a web address on a laptop, PC or smartphone or text on any phone.

SHOTCUT

www.shotcut.org

FUNCTIONS: Video Digital Resources

PRICING: Free

Shotcut is a completely free video editor, that has no limitations on export resolution or file type. It's similar to Windows MovieMaker, so some students may have familiarity with it already. It isn't quite as intuitive as the more professional Lightworks, but can still do everything you would need to produce a video project. It's available for all commonly used operating systems, but might require fairly powerful hardware to run. If students will need to be editing

SLIDO

www.sli.do

FUNCTIONS: Polls; Q&As; Quizzes (Beta)

PRICING: Free (limited polls per event, some features locked), Individual Lecturer, Departmental and University-Wide paid plans available.

Students join the event on the website on a laptop, PC or smartphone using a unique code. You can then ask for questions, post polls and quizzes. Simple information is shown to the students, and you can present more detailed information on the main presenting screen. Can be integrated with Google Slides, and an app (Slido Switcher) is available to allow quick switching between a PowerPoint Presentation and Slido to avoid delays and issues.

SOCRATIVE

www.socrative.com

FUNCTIONS: Quizzes

PRICING: Free (limited class size). Paid plans available with unlimited class size and multiple activities at once.

Allows you to create quizzes with short answer, multiple choice and true/false questions. Quizzes can be prepared in advance and set inside or outside of teaching time, or questions can be posed on the fly. Allows visualisation of whole-class answers and individual scores. Requires an app to create quizzes, but students only need an internet-connected device to join.

TURNINGPOINT

www.turningtechnologies.com

FUNCTIONS: Polls; Quizzes

PRICING: Free (University has Campus Licence)

TurningPoint is the centrally supported student response system. It's a little more complicated than the other services, but has in-depth analytics and you'll have support from within the University if anything goes wrong. Students can be issued physical clickers to answer questions, using the desktop version, otherwise they can participate on their own devices if you use the web version. Integration with PowerPoint presentations is available.

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These are just a drop in the ocean compared to all of the tools out there. But these come with either the recommendation of lecturers within the University or students, so should be relatively easy to use and access.

Just bear in mind, other than the Office Suite and TurningPoint, the Digital Education Office might not be able to provide support for some applications, so if you run into problems you might need to do some troubleshooting yourself.

There's loads of reviews and resources out there to find just what you need, and a lot of it is completely free. Remember not all students will have the same access to technology, and you might need to make allowances for that.

Tips For Success

Students can be surprisingly resistant to a change in established teaching methods or learning style. It's really important to explain to students why active and collaborative learning are being focussed on, and how it will benefit their learning.

When making big changes, it's often better to introduce these from the start of a degree. A sudden change for final year students can be disruptive and students may find it hard to engage.

Where possible, allow optionality. Students will all learn in different ways, have different access to technology, and be confident doing different things. Given students choice in how they engage with content or assessment can massively improve the learning experience.

Just because something doesn't work (or does work) for one group of students, doesn't mean it will be the same for every cohort or group of students.

If you need more help or support, the BILT website, and the Digital Education office website have loads of amazing case studies, resources and articles for inspiration and guidance.

But, most importantly... speak to your students! Find out what they want , what works, what doesn't work, what can be improved, what they love about the course. Feedback doesn't have to just be a form at the end of a module.