



TUS



COMPENDIUM OF ACTIVE LEARNING

*STRATEGIES FOR
STUDENT ENGAGEMENT*

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WITH CONTRIBUTIONS FROM TUS COLLEAGUES**

Foreword

Dear Colleagues,

I very much welcome the publication of this 'Compendium of Active Learning Strategies for Student Engagement'. This compendium will be a valuable resource for the development of teaching and learning within TUS. The compendium is a most welcome addition to our range of resources for teaching and learning. It also aligns very closely with our TUS Learning, Teaching and Assessment strategy '*Putting Learning First*'.

I recognise the quality of the publication, which captures so effectively the range of innovative practices that have emerged, to advance our pedagogy and engage our students so deeply in their learning.

I would like to congratulate and thank all those involved in its development and production, including: the author-editor Dr. Michael Ryan and TUS Staff who have contributed. I also acknowledge the role of the Centre for Pedagogical Innovation and Development (CPID) and the Department of Quality in supporting this publication. I am confident that this will be an excellent resource for University Staff as we continue to embed reflective practice, continuous improvement and excellence in our approach to Teaching and Learning.

Professor Vincent Cunnane
TUS President

Dear Colleagues,

Pedagogies of engagement through active and applied learning is one of seven pillars outlined in the TUS Learning, Teaching and Assessment Strategy "Putting Learning First" (2022-2025). This pillar is aimed at enhancing the student learning experience and promoting excellence. Active learning has been a signature pedagogy across TUS campus locations for over a decade, deliberately selected to support and develop high quality teaching and student-centred learning. Active and applied learning provides a framework for incorporating the use of innovative pedagogical approaches into practice. At its core, this approach fosters deep, authentic and meaningful learning which has become synonymous with the educational experience in TUS.

It contributes to the quality of our graduates and the development of graduate attributes.

Dr. Brendan Murphy
Head of Quality

Dr. Nuala Harding
Centre for Pedagogical Innovation
& Development

Introduction and Acknowledgement

This *Compendium of Active Learning: Strategies for Student Engagement*, consists of two key sections. Part One provides a theoretical overview of the University's commitment to Active Learning for student engagement and outlines over 60 different Active Learning Strategies. These include sections on: Individual, Partner and Group Learning Activities.

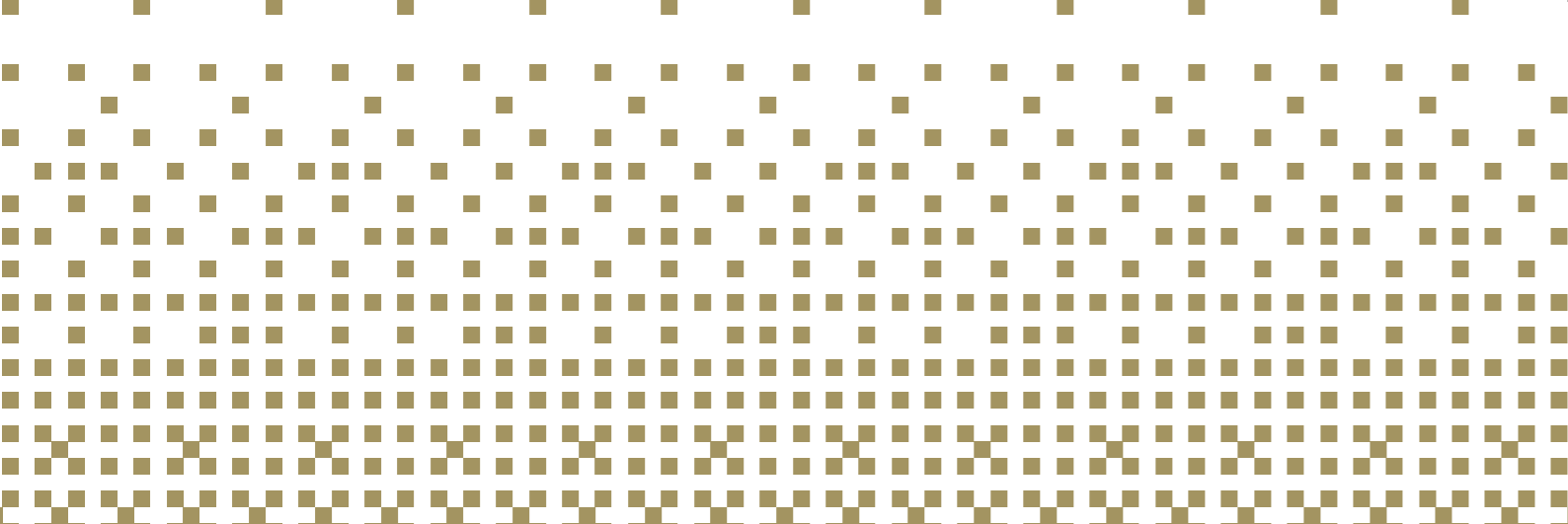
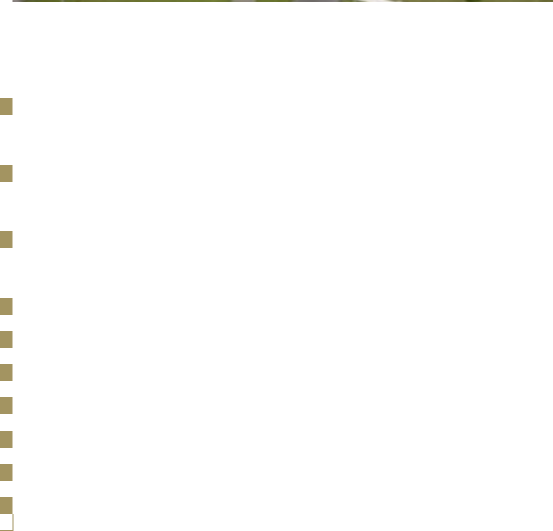
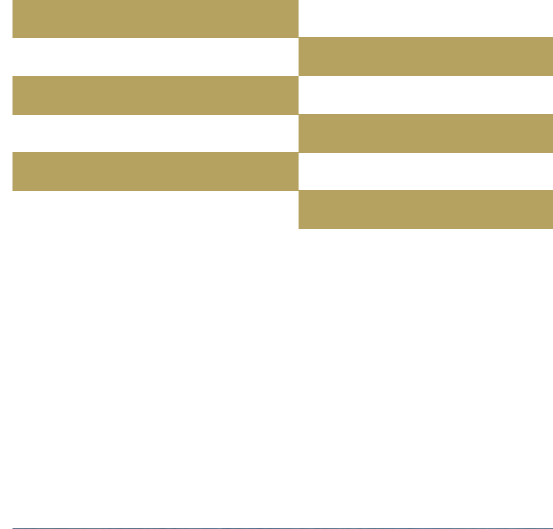
Part Two - The Practitioner Guide presents a practitioner perspective on a significant range of Active Learning Strategies used by TUS Academic Staff, across different disciplinary domains. The Compendium also includes a list of helpful resources for practitioners.

I wish to acknowledge the support of Dr. Nuala Harding (Head of The Centre for Pedagogical Innovation and Development), Dr. Brendan Murphy (Head of Quality at TUS and the assistance of Sarah O'Toole (Dept of Quality). I also thank all those colleagues who contributed to the Practitioner Guide section of the Compendium. Our TUS colleagues have provided invaluable insights and reflections on the integration of active learning strategies into their practice.

Hopefully, this publication will serve as a helpful collaborative resource to all teaching staff at TUS. It may also generate further ideas for continuing to improve practice and enhancing student engagement at TUS. It is hoped that this first compendium will lead to further publications where 'pedagogical communities of practice' continue to share our knowledge and experiences regarding innovative practice that continues to engage students in 'deep' learning.

Finally, a significant thank you to the **National Forum for Enhancement of Teaching and Learning**. They supported this publication under their Strategic Alignment of Teaching and Learning Enhancement (SATLE) Initiative.

Dr. Michael F. Ryan



CONTENTS

ACTIVE LEARNING AT TUS		6
	Active Learning and Student Engagement	7
	Active Learning Principles for Student Engagement	8
	Rationale for Active Learning	8
INDIVIDUAL ACTIVITIES		10
	1. Teacher Posed - Quick Write Prompt	12
	2. Student Polling/Voting	12
	3. Individual plus Group Quizzes	12
	4. Strategic Pausing	13
	5. PPPB (Pose, Pause, Pounce, Bounce)	13
	6. Chain Notes/Post it Forum	14
	7. Focused Listening	14
	8. Knowledge Application Challenge	14
	9. Making Connections and Approximate Analogies	16
	10. Difficulties/Muddy Point	16
	11. Clear Thinking/Blue Sky	16
	12. Assigned Reading Exercise	17
	13. Guided Paraphrasing Of Assigned Article	17
	14. One Sentence Summary of a Key Concept	17
	15. Background Knowledge Probe	19
	16. Misconception Check	19
	17. Classifying & Categorising Matrix	19
	18. Assessment for Learning - Student Generated Assessment	20
	19. RSQC2-Recall, Summarise, Question, Comment, and Connect	20
	20. Periodic Learning Audit	20
	21. The Devil's Advocate Approach	21
	22. Discussion Inventory Following a Learning Audit	21
	23. Minute Papers	22
	24. Learning Portfolios	23
	25. Learning Logs, Reflective Journals & Diaries	24
	26. Module/Assignment Closure Strategies	25
PARTNER ACTIVITIES		27
	27. Turn and Talk	28
	28. Think-Pair-Share	28
	29. Think-Pair-Square-Share	28
	30. Pair Peer Review of Assessment Task	29
	31. Read and Explain Pairs	29

CONTENTS

GROUP ACTIVITIES		30
	32. Case Studies	31
	33. Case Based Learning	31
	34. Visual Displays and Gallery Walk	31
	35. The Walking Debate	32
	36. Four Corners/Stations	32
	37. Demonstrating a Learning Perspective Visually	33
	38. Conscience Alley Role Play	33
	39. Three - Step Interview	35
	40. Throw the Ball	35
	41. Snowball /Cascade Learning	35
	42. Team Thinking & Placemat Learning	36
	43. Diamond Ranking	36
	44. Team Learning With A Jig-Saw Approach	37
	45. Team Problem Solving at the Whiteboard	37
	46. Fish Bowl Learning	38
	47. Decision Making & Six Thinking Hats -Edward de Bono	41
	48. In the Hot Seat	43
	49. Role Plays	43
	50. Using Photographs & Visuals	44
	51. Group Presentations	44
	52. Cooperative Learning & Group-work	45
	53. Nominal Group Technique (NGT)	47
	54. Brainstorming	48
	55. Video Analysis	48
	56. Enquiry Based Learning	50
	57. A Guest Speaker	52
	58. The Backward Test Using Pairs or Triads	52
	59. Site Visits, Field Trips	53
	60. Virtual Fieldtrips	53
	61. E-Tivities	54
PRACTITIONER GUIDE		56
	Pair-Share: Group Work: Liam MacCarthaigh	58
	Metaphor Analysis & Walking Debates: Dr. Martin Fitzgerald	60
	Discussion Forums: Dr. Tracey Larkin	62
	Using Visuals: Dr. Catherine-Ann O'Connell	64
	Interactive Electrical Circuit: Seán Conway	66
	Using Explainer Videos: Dr. Matt Cannon	68
	Using Webwork Platform: Patrick Browne	69
	Blind Dates With Journals: Mairead Dennehy	71
	Climates of Care: Department of Applied Social Science	72
	Site Visits: Dr. Sinead McMahon	74
	Games Based Learning: Paul Keating	75
	Environmental Action: Kevin Healion	78
	Escape Box for Student Engagement: Pamela O'Brien	79
	Work Based Role Plays: Emma Aherne	80
	The Final Year Project: Dr. Derek McLnerney & Dr. James Griffin	82
	Care in Online Teaching & Learning: Ashling Sheehan Boyle & Emma Aherne	85
	Speakers Corner Events: Dr. Michael F. Ryan	86
REFERENCES		89
RESOURCES		90

Active Learning at TUS

Active Learning and Student Engagement

Active Learning is an educational process where students become vigorously engaged in assimilating the material being explored, rather than passively absorbing that taught by others. Active learning is an umbrella term that refers to several models of instruction that focus the responsibility of learning on learners. Active learning promotes the comprehensive and integrated development of cognitive, affective (emotional) and psychomotor domains. It enables deeply embedded learning, skill development and values appraisal.

Active Learning can be enabled in face to face, blended and/or online environments. Regardless, the learning environment and learning climate is one of interaction, collaboration and stimulation. Its effectiveness depends upon the instructor's ability to create and cocreate with students a learning community. In so doing, students are encouraged to take responsibility for their own engagement, by responding positively to the learning stimulus and; through their participation, students are actively engaged in contributing to the learning.

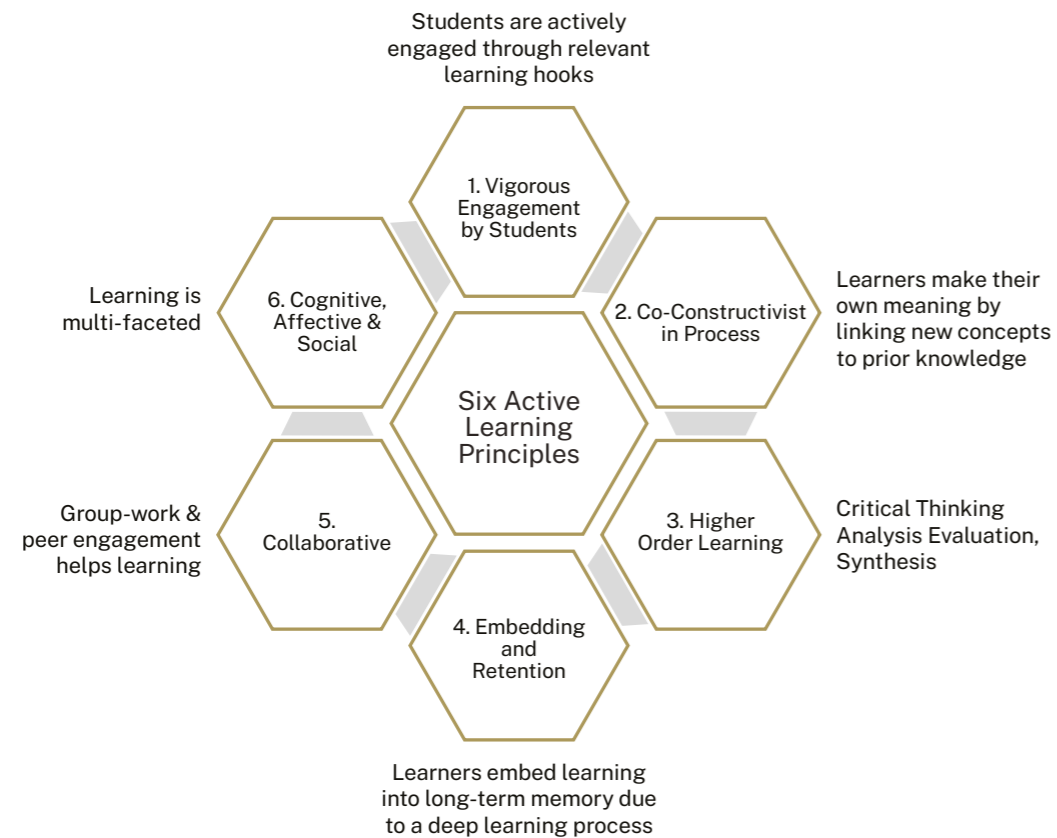
Active Learning can range from traditional instructional models to more constructivist and co-constructivist approaches (inclusive of face to face, blended and online learning). With active learning, lecturers have the opportunity to become: *“activators of meaningful learning, not just facilitators, being creative in choosing from a wide palette of strategies to be mixed and adjusted to context and learner”* (Caena and Redecker, 2019). Active learning for student engagement embraces new possibilities afforded by technology enhanced learning and the flipped classroom. It includes the:

- Development of advanced cognition and higher order thinking processes, associated with exploring, expanding and embedding knowledge.
- Development of learner motivation and engagement through ‘values development’ intrinsic motivation, autonomy, personal mastery, self-responsibility and purpose.
- Development of identified psychomotor skills associated with specific disciplinary needs and frequently, the physical encoding of information through movement and a variety of stimuli to enhance student motivation and cognitive capacity.

Active Learning embraces a variety of pedagogical interactions: Student to Content; Student to Student; Student to Facilitator/Teacher; Student to Industry/ professional practice settings. Active Learning methodologies can occur along a continuum from: individual-based activities, to pair and group-based episodes of collaborative engagement. It also includes a pedagogical continuum, ranging from episodic encounters (pair and share/minute papers) to more extended and sustained active learning strategies including Problem Based Learning (PBL) extended case-study method and enquiry-based learning.

TUS has included ‘Pedagogies of Engagement’ through Active and Applied Learning’ as a key pillar in its current Learning, Teaching and Assessment Strategy: Putting Learning First (2022-2025). TUS prioritises active learning as a means of achieving academic excellence and successful student engagement. TUS will continue to embed Active Learning in programme design, delivery and assessment processes as a means of continuously striving for innovation and excellence in teaching and learning.

Active Learning Principles for Student Engagement



- 1. Pedagogical: Evidence-Based Studies:** These studies demonstrate that active learning strategies (across a range of disciplines) successfully engages learners and impart to them a sense of ownership of their learning process. It also enhances knowledge retention and development because of the deeper levels of engagement associated with knowledge construction. (See: Bonwell and Eison 1991, Eison 2010; Bean 2011; Cavanagh 2011, Healey, et al 2013, Freeman et al, 2014, Homes, 2018).
- 2. TUS Graduate Attributes, Work Readiness & Development of the Whole Person:** Life-long skills such as: adaptability, critical thinking, creativity, teamwork, problem solving, multiculturalism and reflective practice can be successfully nurtured through well-designed active learning strategies and authentic assessment. The role of professional practice placements, theory practice negotiation and collaborative learning ensure that graduate attributes and holistic student development are central to the curriculum experience for students.
- 3. Applied Disciplinary Domains:** Our undergraduate suite of programmes includes a range of skills-based programmes, where ongoing competency development is integral to the learning experience and future employability. In TUS graduate surveys (Formerly LIT and AIT) almost 90% of graduates, gain employment within the Mid-West and Midlands regions with employer surveys consistently citing our Graduates as work ready.
- 4. Diverse Student Profile:** Students in TUS display a range of multiple intelligences and ability levels. Learner diversity is best facilitated and enabled through a range of active learning strategies – complemented by assessment of, for and as learning.

- 5. Learning Outcomes & Constructive Alignment:** Learning outcomes are sets of competencies expressing what a student shall know, understand or be able to do after a process of learning. They are an essential part of the learning model known as 'Constructive Alignment' defined by Biggs (2003 & 2022), as "coherence between assessment, teaching strategies and intended learning outcomes in an educational programme." In this model, all components of the Teaching and Learning process are aligned to each other to facilitate the achievement of the intended learning outcomes. In TUS, this emphasis on learning outcomes and their alignment with student centred, active learning modes of delivery and effective assessment is reflected in our programmes.
- 6. Active Learning in Preparation for Lifelong Learning:** TUS has a core philosophy and associated pedagogy of 'active and applied learning for student engagement' in which graduates are equipped to develop professionally and personally. It is widely recognised that 21st century graduates will need to engage in continuous professional development. A positive undergraduate experience and taking ownership for one's own learning is therefore vital to the development of a positive attitude towards life-long learning.
- 7. Disciplinary Excellence in Learning, Teaching and Assessment:** The emerging focus on Disciplinary Specific Pedagogies (National Forum 2017-2020) provides a national policy momentum for specific disciplines in TUS to continue to develop and design customised active learning curriculum initiatives. In 2018, TUS-Midwest (formerly LIT) the Department of Applied Social Sciences was shortlisted for a DELTA award (Disciplinary Excellence in Learning, Teaching and Assessment) based on its innovation in teaching and learning. Much of this innovation centred around active learning embedded in a 'care-based' Department culture.

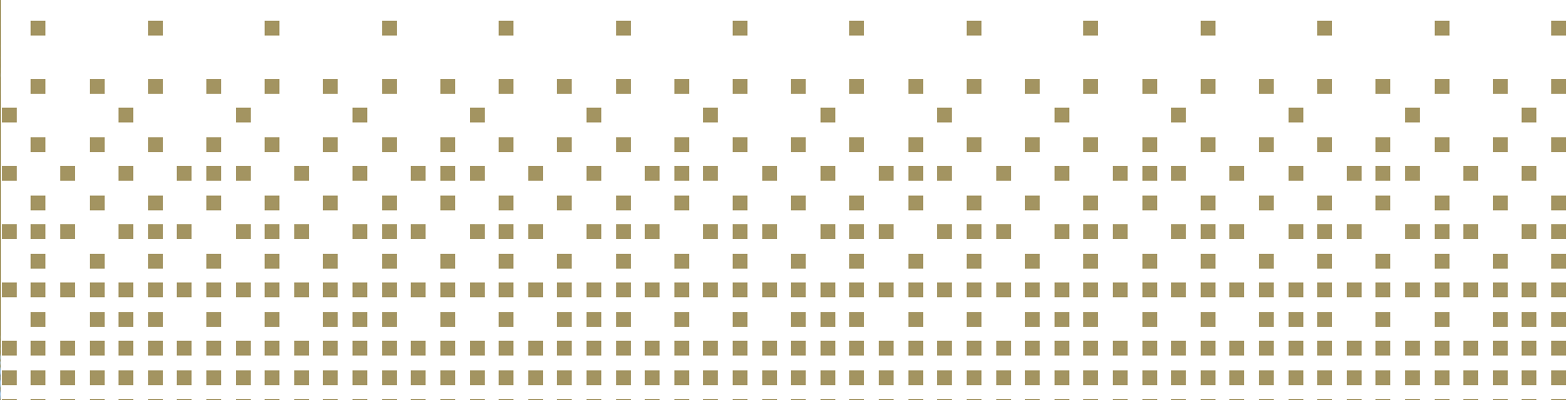


Individual Activities

The following range of active learning activities stimulate cognitive development at an individual level. These strategies can be used in small or large group settings (traditional lecture and tutorials) and they do not require physical movement in the classroom. The key focus here is to engage students in higher order cognitive skills including critical thinking, analysis and evaluation. The interaction is typically student to facilitator and student to content but depending on the context, each strategy can also be further developed to include pair based/small group activity.

Many of these activities are known as classroom assessment activities or CATs. These activities help engage students in their own learning by varying the rhythm of learning, changing cognitive stimuli and ensuring they are not passive. They also provide valuable feedback to tutors and lecturers regarding the status and depth of student learning.

Practitioner Tips

- Explain the purpose of the activity to your students in advance. During induction for your module brief students about your philosophy of learning for this module and why active learning is an essential component of it.
 - Begin by choosing a technique that easily fits your teaching style and classroom time limits.
 - Conduct at least one CAT on a weekly basis, so that you are encouraging the culture of participation and creating a community of learners where multiple voices are being heard.
 - Complete CATs before each assignment, so that you can preempt any problems or questions beforehand.
 - Vary the range of CATs used so that the learning dynamic is rich and varied for the students.
 - Stay creative and innovative; there are so many possibilities for varying the strategies outlined below.
- 

1.

Teacher Posed - Quick Write Prompt

A prompt is posed for students to respond to in writing. It is usually a brief activity that can be used to achieve one or more of the following outcomes:

- determine what students already know about a concept before it is explored.
- engage students in thinking about how a concept might be applied in practice.
- revise a key concept already covered and see if students have retained a key definition.
- require students to make a connection between one concept and another.

The above prompt can be placed on a powerpoint slide or verbally given. Lecturer/Tutor can call for specific responses and take a sample of responses with or without commentary. This activity is usually a short interval in a learning episode – typically 5 minutes in duration. The strategy can also be extended to include a ‘pair and share’ approach if desired.

2.

Student Polling/Voting

This strategy can be used in a variety of contexts whereby students are invited to vote on a series of options and choose the best one for the particular context. The voting can be completed using a quick ‘show of hands’ or can be facilitated by clicker technology, Socrative.com and Poll.Everywhere.com. which enables anonymous voting.

- Possibilities here can vary from a single quick poll response as an engagement hook at the beginning of a session to a series of poll responses based on additional insights added throughout a learning episode.
- Students can be invited to discuss their responses with peers, and to justify their choice of response. Discussion of responses will deepen engagement and hopefully learning.
- It is also typical that the teacher’s evaluation of the polling results and listening to student justification of their responses will influence the subsequent learning process and additional insights/knowledge requiring clarification.

3.

Individual Plus Group Quizzes

An individual quiz can be a very successful way of engaging students in self-evaluation skills. These can be developed online or distributed in soft copy. The quiz can be very useful at the end of a stage of learning to recap key concepts across a range of knowledge domains or as a key revision strategy at the end of a module. The Quiz can also be used as a more formal assessment using online MCQs. Students can also be given a revision type quiz in advance of a significant assessment so that they have time to address knowledge gaps before the actual formal assessment.

If desirable, following the individual quiz given in class, students could engage in pair-share and comparison of answers.

4.

Teacher Posed - Quick Write Prompt

Deliberate and strategic pauses can be very effective changes of cognitive stimuli for student listening and engagement. They can be used in a wide variety of learning processes including:

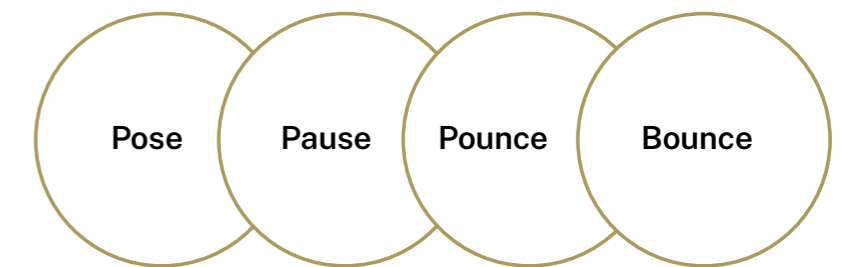
- Pausing after a well posed question –requesting students to think for 2-3 minutes (without writing).
- Inserting a blank slide into a powerpoint presentation as a routine symbol for a pause activity that could be a question, could be think time or could just be a space for contemplation.
- Ask students to quietly take notes on a specific insight or visual that you as lecturer have elucidated on the white board/ flip chart. This writing period may be a pause from verbal input and can be followed by a check in for understanding and an opportunity to ask questions.
- Pause for ten seconds after asking a question before calling on a student to respond. Possibly ask students to write their response and to be prepared to share it if requested.
- Have students do a quick write about a concept just covered in lecture (e.g. their understanding, two questions they have about the concept as presented, what they would like to know more about.
- Have students apply their understanding of a concept just covered by working with a peer and comparing their approach.

5.

PPPB (Pose, Pause, Pounce, Bounce)

This is a simple, yet sophisticated Assessment for Learning, questioning technique to help teachers elucidate learning and tease out the nature of student understanding. It also helps address differentiation in the classroom and encourages teachers to stretch the possibilities of cognitive and affective development. It is also a useful focus for differentiating objectives and learning experiences by varying questioning techniques.

How does it work?



Pose

Give the context of your PPPB approach to the class. It is important they know what is happening. Provide a question or a series of questions, ensuring that you ask the students to remain reflective. Pose the question to the group not an individual and request that they each think the question or questions through before offering any responses.

Pause

This is the difficult part. To stop talking... Ask the class to hold the thought... think... and think again. If students are captivated and engaged, try holding the silence for a little while longer and still push the boundaries. Keep the reflection for as long as possible....before you pounce on a specific student.

Pounce

Insist that the answer to the question comes from student A and possibly student B, directly and as fast as possible! Of course plan in your mind who you are going to ask, before speaking to the class. Name student A to respond. Possibly don’t speak and nip any comments, grunts or noises in the bud! Wait for an answer ...pause... decipher the support needed, especially if no response is evidently on its way. If student A does manage to answer, then.

Bounce

Ask another student B their opinion of student A’s answer (immediately) after the Pounce response. This can be developed by asking student B and C their opinions to student A’s response, irrespective if the answer is correct or not. An additional strategy is to Bounce the question onto a group A...and subsequently, a sub-group B if group A do not deliver a suitable way forward. This ensures the teacher is engaging a significant number of students with the question at hand, whilst using this strategy. It also ensures the entire class can be called upon at any given time by just returning to Pose or Pounce.

6.

Chain Notes/ Post It Forum

The lecturer creates a question, which is passed around in soft format with blank pages added for student writing. Students pass around the folder with the question prompt and paper for students to respond. When the folder reaches a student, they write a brief response to the question, and pass the folder to the next student. This can be a very useful strategy for the following purposes:

- to establish what students know about a specific concept.
- to establish if students have difficulty understanding a very significant or complex concept.
- to get feedback on student understanding across a cohort.
- to guide decision making about a possible assessment question that is being considered.

The lecturer can then categorise the responses and provide subsequent insight or feedback to students, or to tease out learning issues in greater detail. It is a very democratic way of proceeding with students and gives all students who are present a voice.

An alternative way of doing it would be to create a discussion forum prompt using a VLE platform such as moodle and to allow time for students to log in during class time to respond to the forum prompt. If required, they could respond by a specified time and also be asked to respond to someone else's forum post. [See sample practitioner activity 03.](#)

7.

Focused Listening

Students are advised at the beginning of a mini-lecture, or at a transition stage in a longer lecture that a really important key concept is being introduced and explored.

- Students are asked not to take notes but to simply listen and concentrate for a specific period of time (5-10 minutes).
- When the concept has been introduced, defined and explored somewhat, then students are invited to write down the meaning of the key concept and associated ideas relating to it.
- They may also be encouraged to use a diagram or visual aid to capture their learning.
- Alternatively, the tutor can initiate a discussion to explore the learning and understanding.
- They may also be then invited to share their understanding with a peer.

This is a very useful strategy to establish a conversational, story-telling approach. Useful in large & small courses where a large amount of new information is regularly introduced.

8.

Knowledge Application Challenge

After teaching an important formula, theory, principle, or procedure, invite students to write down at least one context-specified application for what they have just learned. This challenge can be embedded into a powerpoint presentation slide.

- After 5 minutes of think and write time-ask for volunteers to share their application contexts. Write these on a whiteboard as they are volunteered.
- Acknowledge student effort and generate some further learning by making connections between categories.
- Pose further questions for students to elaborate on; then use all the examples as scaffolding for the next stage of learning. Using examples provided by students will lead to deeper levels of engagement and retention.



9.

Making Connections & Approximate Analogies

This strategy is used to assess if students understand the relationship between key concepts. In Maths or Science based subjects, it could be to complete the second half of an analogy – A is to B as X is to Y – for which the tutor has supplied the first half (A is to B). For subjects in the humanities or social sciences the analogy could be between two complementary theories or contradictory theories. The possibilities are endless here depending on the discipline. This exercise can be adjusted in its complexity and has potential for advanced cognitive skills of analyzing, evaluating and synthesizing.

10.

Difficulties/ Muddy Point

Students are invited to nominate an element of content from a lecture or tutorial that they find complex or difficult to retain understanding on. A response can be elicited by posing the question “What was the most unclear point in _____?” The focus could be a lecture, a discussion, assessment brief, selected reading, play, or a film.

Quickly read through at least half of the responses, looking for common types of muddy points. Sort them by affinity. Use a principle (number, concepts, skills) to decide which to deal with in class.

11.

Clear Thicking/ Blue Sky

This is a useful strategy when a key principle/theory/concept is being explored and the tutor wishes to assess if it has been understood by students. As with the *Muddy Point* prompt, just ask students to write a response to a single question: “What was the clearest point for you in ___?” The strategy can also be used in the context of an assigned reading, peer presentation, in class discussion/ activity, or research task associated with a flipped classroom approach.

The tutor collects the responses and reads them (or if posted online – just reads them). Depending on the nature of the responses and the level of understanding gained, the tutor can decide on what follow through is necessary as the basis for the next learning episode.

12.

Assigned Reading Exercise

This is a very effective strategy for creating a culture of reading and independent study among a student cohort. It can also be developed to serve many higher-order, critical thinking, learning outcomes.

Choose a specific reading relevant to a particular theme. Allocate students time to read in preparation for the following session. For a long reading, it is helpful to pose some specific questions which may guide students in the reading task and in note taking to respond to the assigned questions. In the follow up session there are a variety of approaches that can be taken. Each of the questions posed can be placed on a powerpoint slide and the tutor can facilitate a sharing of responses and elaborate on key points raised. At the end of the discussion/ exploration, it may be helpful to ask students to revise their summary of key points and to take notes on points raised that they may have missed in their first reading.

13.

Guided Paraphrasing of Assigned Article

Students write a summarised version of an assigned article they have read and use their own words to communicate its essence or meaning to demonstrate comprehension and deep understanding.

As preparation for the task: Students can be assigned some specific prompts including the following:

- The most important theme or central point.
- Three key ideas, issues, insights.
- Three examples of how to apply the ideas, issues, insights in a relevant disciplinary context.
- One muddy point or concept which can be expressed as a question or series of questions.
- How ideas in this article link with other theories or concepts covered in the module.

The tutor may read a sample of the responses and make some judgments on the level of understanding and analysis. As a follow up activity, students could be asked to share some of their responses with a peer or in a subsequent tutorial, the collective responses could be engaged with via a small group discussion discussion/exploration, it may be helpful to ask students to revise their summary of key points and to take notes on points raised that they may have missed in their first reading.

14.

One Sentence Summary of a Key Concept

Students in a lecture are given 3-5 minutes to summarise knowledge of a topic by constructing a single sentence that captures the central idea in a theory, principle or domain of knowledge.

The tutor invites up to three participants to share their sentence and affirms the quality of each summary quickly and holistically. Note whether students have identified the essential concepts of the class topic and their interrelationships. Alternatively, students could be asked to share their responses with a peer.



15.

Background Knowledge Probe

Before introducing an important new concept, subject, or topic, students respond to questions that will probe their existing knowledge of that concept, subject or topic. This usually means teasing out their pre-conceived definitions of key words, concepts and phenomena before providing a more formal disciplinary explanation. It is a constructivist strategy, that builds knowledge on what students already know and creates strong foundations for subsequent scaffolding of knowledge. It also provides the tutor with a very informed sense of where the overall level of learning is at and; how best to leverage existing knowledge and understanding, in how to proceed with the module.

16.

Misconception Check

This can be used at any stage of a module to do a check in on student comprehension of key learning or as a way of seeing if intended learning outcomes have been achieved. Students respond to a customised questionnaire that elicits information about ideas that may be obstacles or block further learning. It is also a good strategy to use before moving on to a new concept or where there is a sequence of learning that makes it difficult to proceed unless foundation concepts have been established and embedded.

Students can be asked: What do you not understand about x? What would you like clarified further before we proceed with the next theme?

17.

Classifying & Categorising Matrix

Students are provided with a two-dimensional chart. Depending on the discipline, the tutor can place specific categories on the left-hand column (Schema for organising knowledge and concepts into disciplinary sub-headings). In Geography/Earth Science, for example students could be provided with the three categories of rock: Igneous, Sedimentary, Metamorphic on the left-hand column. The right-hand column could have an unsorted listing of rock labels. Students are asked to allocate the correct labels on the right to the correct category on the left. After a suitable time allocation, the tutor can then do a centralised check list from a pre-prepared chart of the correct classification. This approach can be used very effectively at different levels of learning outcome from: knowledge retention and understanding to analysis and evaluation.

18.

Assessment For Learning - Student Generated Assessment

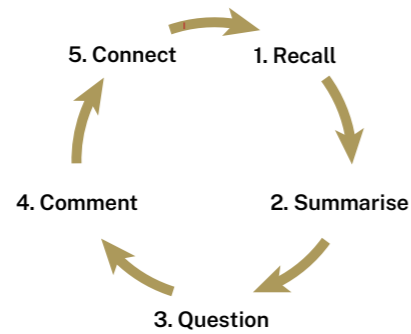
Students are requested to propose questions and model answers for assessment. Research tells us that the more students are engaged in discussion about assessment, the greater their engagement in the learning. This will encourage students to evaluate course topics, review their understanding of key concepts in the module and frame questions which they would enjoy answering. Depending on the disciplinary context, students can be guided about the type of assessment. It could range from generating short Multiple Choice Question (MCQs) for an online assessment to more complex assessment tasks of essay type questions or larger problem based approaches.

The tutor will then moderate the suggested assessments and evaluate them for suitability. Some tutors might do this annually to ensure that a range of assessments are made available to them for their ongoing assessment bank.

19.

RSQC2- Recall, Summarise, Question, Comment, and Connect

This 5-step approach is a very effective teaching and learning strategy for various stages within a learning sequence. It is particularly helpful when moving from one theme to another and making connections between components of knowledge or constructs within a module or programme. Tutors can develop one question/prompt for each of the five steps, so that they are guiding the learning process in a desired sequence to engage students in gathering and summarising data, asking new questions, making connections with new concepts to reach new understandings and to consolidate a learning sequence.



Students can be encouraged to summarise responses arising from this sequence. The tutor can act as a facilitator to tease out the responses as they move through each stage of the sequence.

20.

Periodic Learning Audit

This strategy can be used at key stages of a learning process to take stock, encourage retention, reflect on professional development, review knowledge, skills and values development.

Depending on the context, tutors could allocate students a specific learning/revision task and ask them to be ready to share their learning in a tutorial setting. Question prompts might include:

- What is your understanding of x ?
- How has your learning about x developed in the last two weeks?
- What skill domain are you now able to perform?
- How might your values have changed or developed?
- What are you still finding difficult?
- If you were to give one piece of significant feedback to the tutor at this stage what would it be?

21.

The Devil's Advocate Approach

The devil's advocate approach asks one or more students to take the opposing side of a predominant argument or point of view presented during a lesson. Once the tutor has completed an assignment or unit of learning, a suitable theme is chosen for discussion and debate. The theme should serve as an appropriate subject for providing arguments from both sides.

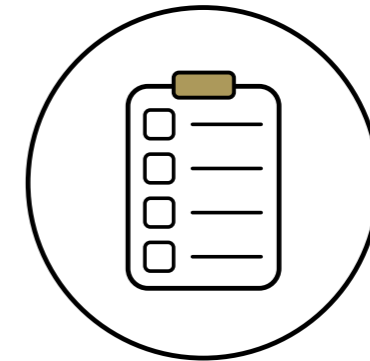
The activity is flexible and should be tailored to suit your particular module. In its simplest form, divide the class into two categories representing two different approaches/arguments. You can then invite alternate speakers from each side to advance their side of the argument.

Alternatively, you may allocate students a specific text that argues toward a certain perspective and invite them to provide a counter response to this text.

22.

Discussion Inventory Following a Learning Audit

This is a very useful strategy to explore what students know and what remains unclear or requires further clarification. Fundamentally, the idea is that the tutor facilitates a group discussion in a tutorial setting where the student voice is given space to flow and the tutor's role is to keep the discussion going without volunteering the tutor's own opinion or correcting factual errors, unhelpful assumptions or limited perspectives. The tutor will however tell students that that they will be taking 5-10 minutes towards the end of the discussion to give some of their own reflections.



The inventory is essentially then a list of the things we want to make sure students are exposed to before they exit the room that day. It is blank at the start of the discussion but fills up as we jot down errors we hear, perspectives that we feel are glossed over or ignored, and important oppositional views that we think are too easily rushed past.

Sometimes in the middle of a discussion that is going well, someone makes a statement that we know shows a misunderstanding of a concept, or is clearly factually wrong, but we feel uncomfortable interrupting the flow of talk at that particular time and drawing attention to the particular student. When that inaccurate or misleading statement is made, we note it in our inventory to make sure we address it later. This provides a level of safety to participants, because they will not be identified by name later, when we are focusing on the issues requiring clarification, rather than on any individual student.

In the five or ten minute inventory time, we provide information about perspectives that were missed during the discussion and we offer alternative viewpoints that students did not consider. This is also an excellent time to draw attention to what we consider to be misconceptions or misunderstandings expressed during the discussion.

23.

Minute Papers

Commonly used at the end of class, the minute paper typically asks: “*What was the most important concept you learned in class today?*” or, “*What do you see as the key 1 or 2 points of today’s activities/lecture/discussion?*” Prompts can be used to pose reflection-oriented questions.

Review responses and note any useful comments. During the next class emphasise the issues raised by the students’ comments.

MINUTE-PAPER PROMPTS - CHANGING UP THE QUESTIONS YOU ASK

A range of categories can be used to generate minute paper prompts:

Interest:

- What was most memorable or stands out about today’s lecture?
- What was the most surprising and/or unexpected idea expressed in today’s discussion?
- Looking back at your notes, what would you say was the most stimulating idea discussed in today’s class?
- For you, what interesting questions remain unanswered about today’s topic?

Relevance:

- In your opinion, what was the most useful idea discussed in today’s class?
- During today’s class, what idea(s) struck you that is most relevant to practice?
- What examples cited in today’s class could you relate to the most?

Analysis:

- What did you perceive to be the major purpose or objective of today’s class?
- What do you think was the most important point or central concept communicated during today’s presentation?

Attitudes/Opinions:

- Would you agree or disagree with this statement: . . .? Why?
- What was the most persuasive or convincing argument that you heard expressed in today’s discussion?
- Was there a position taken in today’s class that you strongly disagreed with, or found to be disturbing and unsettling?
- What idea expressed in today’s class strongly affected or influenced your personal opinions, viewpoints, or values?

Conceptual Connections:

- What relationship did you see between today’s topic and other topics previously covered in this course?
- What was discussed in class today that seemed to connect with what you are learning or have learned in other course(s)?

24.

Learning Portfolios

A learning portfolio is used to achieve a specific set of learning outcomes. Depending on the disciplinary domain, its use can vary but may be used to:

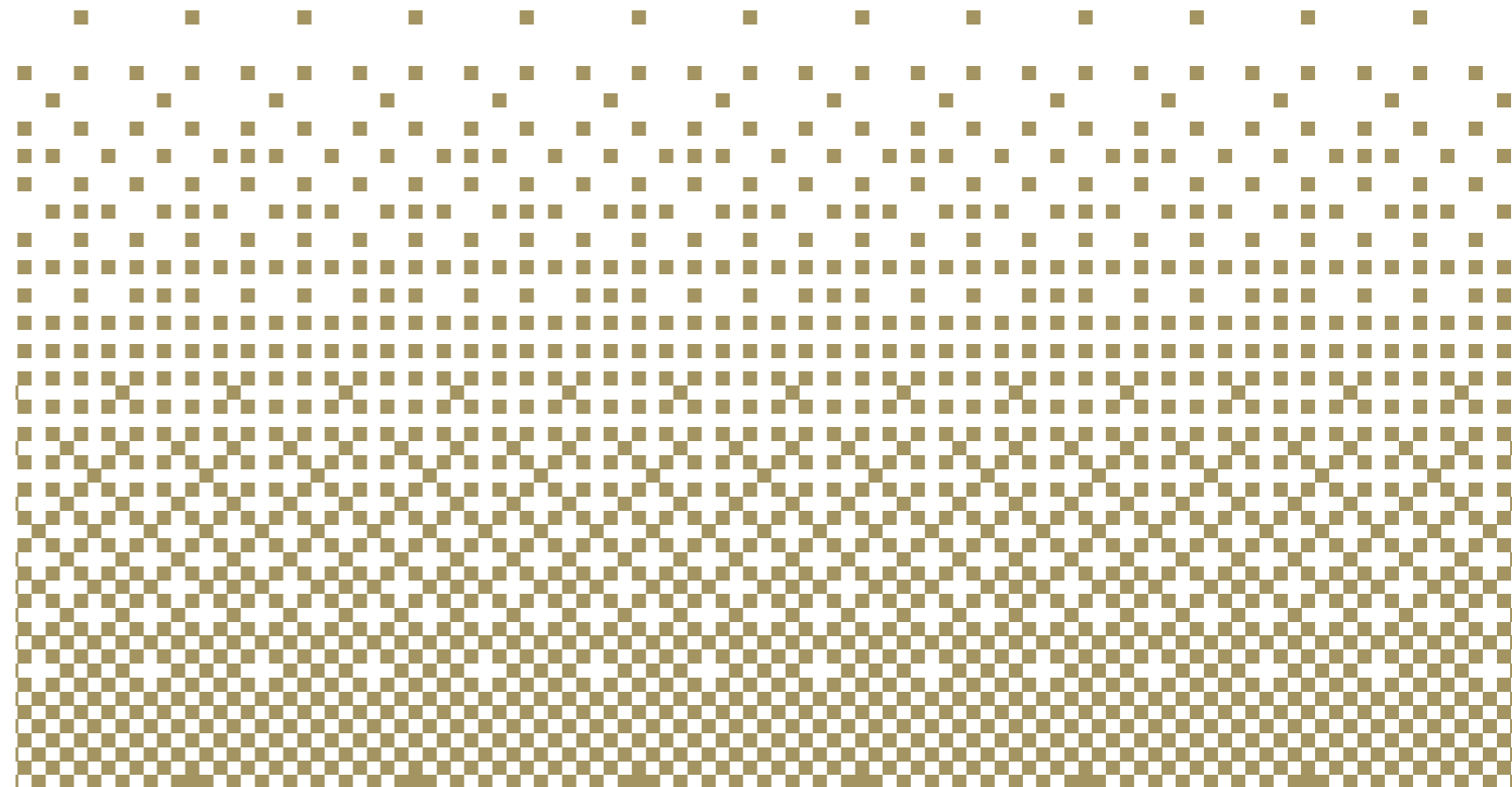
- Track a student’s development (cognitive, affective and skills/psychomotor over a semester.
- Highlight a student’s best work –through an assessment process.
- Be an accompaniment to a professional placement and the associated learning.
- Connect students to future work environments or progression route-ways.
- Involve students in an assessment process.

Engaging Students In A Portfolio Design Process

From an educational perspective – the more engaged students are with assessment design, the greater their motivation and ownership of the learning.

While tutors may have an overview of the structure of the portfolio (overall word count, mandatory sections, submission format), some flexibility about the following elements should be afforded:

- Students set their own learning goals.
- Students propose criteria that they would use to evaluate each other’s portfolios
- Students have some choices/options for what they want to include.
- Students have options to include diagrams, illustrations, visuals/photos and video.

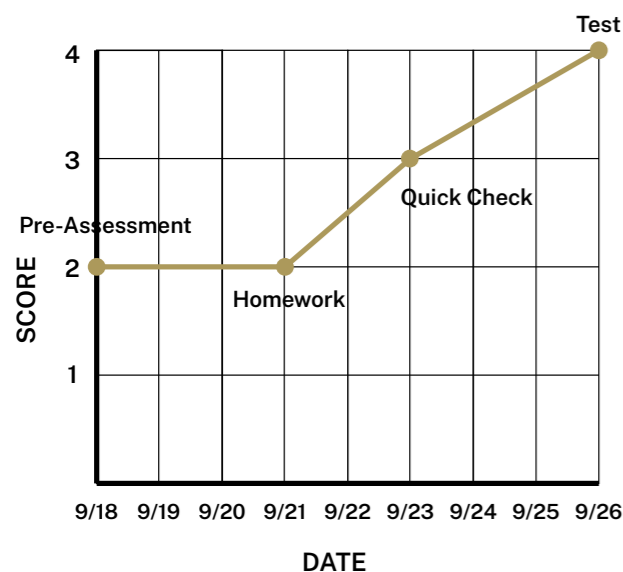


25..

Learning Logs, Reflective Journals & Diaries

Learning logs, Reflective Journals and diaries are terms often used interchangeably.

However, the purposes of them can differ slightly. In a learning journal, the emphasis is on recording the learning that occurs over a period of time. Learning journals can be made as a tape, video, in electronic form or can be hand-written. The learning journal focuses on issues explored over time and its purpose is that the student will learn from the process of doing it, or from the cumulative learning that is reflected on. It is not simply an events diary. Journal writing is a process that allows the student to reflect on their learning. It is a record of what the student has learnt, tried and critically reflected upon.



Reflective diaries usually reflect on specific experiences, which may not extend over periods of time. Learning logs are a record of events that have happened.

The Advantages Of Writing A Learning Journal Include:

- To record and facilitate learning from experience.
- To develop critical thinking or the development of a questioning attitude.
- To encourage metacognition.
- To increase active involvement in, and ownership of, learning.

- To increase ability in reflection and thinking.
- To enhance problem solving skills.
- As a means of assessment in formal education.
- To enhance reflective practice To enhance the student's personal development.
- To enhance creativity and to improve writing.
- To increase communication skills.

Journal writing gives students a space in which to think and reflect. It also encourages independent learning. Students have to write their own journal and because they 'own' the learning, it is likely that it will be more meaningful to the student.

Writing a journal also provides a focus point where students can make sense of and organise information. It encourages reflection and therefore allows students to relate their learning to their prior knowledge. It encourages metacognition and makes students more responsible for their own learning.

Using A Learning Journal With Students:

Students will get most out of using a learning log/journal if they are provided with some structure and clear brief for what is expected. For example, you can provide a set of "guiding statements or questions" that students can select from and respond to. If you decide to allow students to select from a list of statements or questions, be sure to limit the number of options from which students may choose.

Statements that could be included for students to answer:

- This topic reminds me of...
- I've been learning about...
- The part I know the most about is...
- The part that is the most confusing is...
- I'd like to know more about...

..25.

- Knowing about this topic helps me...
- The part that was the newest to me was...

Remember only to provide a limited number of questions from which students may choose to respond. However, it is good to set a minimum number or a mandatory set of questions which the students must answer.

Students should try to write something down after every new learning experience. Prompts that you could give students to respond to, include:

- What you did.
- Your thoughts.
- Your feelings.
- How well (or badly) it went.
- What you learnt.
- What you will do differently next time.

On a regular basis, request students to review what they have written and to reflect upon this. Students could ask questions such as:

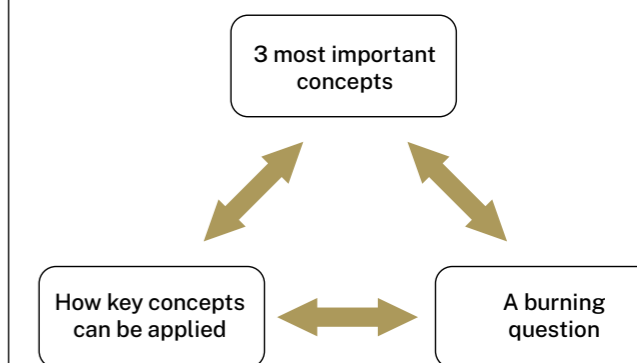
- Have I achieved anything? If so, what?
- What progress have I made?
- Have I put any theory into practice?
- How does what I have been doing lead to me becoming better at a skill?
- How can I use this to plan for the future?
- How can I use this to plan new learning?
- Experiences?

26..

Module/Assignment Closure Strategies

There is a range of possible strategies available to conclude a module or significant assessment process. Some tutors will use a formal evaluation form/process required for Quality Assurance purposes or may also have their own customised module evaluation template. In addition to these formal processes, there are also assessment for learning strategies, that can yield rich information to bring closure for students, consolidate learning and also provide feedback for ongoing improvement.

(a) The Content/Application/Curiosity Triangle



Request students to respond to each of these domains as part of a module evaluation or towards the end of a learning sequence.

This activity can be completed during the second last week of the semester, so that the tutor will have opportunities for working with students to address those burning questions during the final session. The tutor will learn what students consider the most relevant aspects of the course and also how students intend using these concepts.

(b) Create a Course Headline

"WHAT I REMEMBER MOST FROM THIS COURSE"

Ask students to write a headline using just six to eight words to summarise what they remember most from the module. You can collect these or display them and see what themes emerge. Then a closing discussion can be facilitated to process the responses. The headlines can also help tutors verify whether intended messages or learning outcomes have resonated with students.

..26.

(c) Letter Of Advice To Future Students Studying This Module

Request students to write a letter to future students, giving them advice on how they can do well in your course. This can allow students a chance to reflect on what they learned and give the tutor a chance to see what they think is important. With permission, you could share these letters with future students. You could also consider doing a recording of students reading out their letters (with their permission) and subsequently share a recording with future students as part of their induction.

(d) Class Closure Cards

The questions teachers create for this card deck could include:

- What was the big picture of this course?
- What information was most surprising?
- What areas need further research for you to fully understand the complexity of this topic?
- How did your view of the subject change over the course of the class?
- Have you changed your opinion of the course topic as a result of this course? If so, how? If not, why?

Students work in small groups or teams that have worked together across a term – each group draws a card, then prepares a response to share with the class; 10 minutes for groups to prepare, each getting 5 minutes to share.

(e) Journey Metaphor/Artefact

This activity is suitable to a key learning stage in a module or to an end of programme seminar. Students are requested to describe their learning journey using a metaphor or artefact. Typically, students are given adequate time to think about this metaphor or artefact. Students are invited to bring this metaphor/artefact to the classroom for a specific date and explain why they have chosen it.



The exercise usually generates some very authentic and memorable insights as students listen to each other's narrative and get to see a visual of the metaphor or indeed an actual object/artefact that students bring. Usually the collective peer-learning serves to embed key learning themes and gives an authentic closure to a stage of a programme while honouring the student voice in the process. (It might be advisable to request students to think beyond trees and rivers!) [See sample practitioner activity 02.](#)

Partner Activities



27.

Turn and Talk

In a turn and talk, a question is posed to the class and students simply turn to the person next to them to discuss. This can serve as a comfortable way for students to share their ideas with others and set the stage for them sharing with the larger group. The instructor doesn't need to hear all (or any) of the ideas shared. The important aspect of this strategy is for the peers to share and for individuals to access their prior knowledge about a topic.

Example prompt: Ask students to turn to someone next to them and discuss their responses to the following question. Tell them to take two minutes to discuss this with their partner with each person getting some time to talk.

28.

Think-Pair-Share

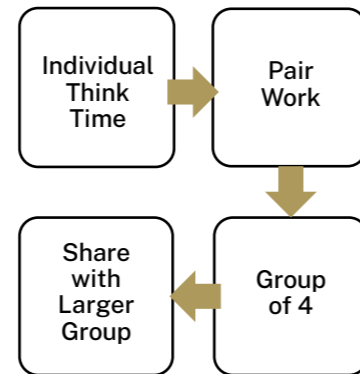
This is similar to 'Turn and Talk' –but it requires that each student think first about the question posed and organise their own thoughts before sharing them. This structure gives students a chance to organise their ideas – first in their own minds, then with a peer before sharing with a larger group. The process involves three clear steps:

- Students think individually about the question or idea(s) put forth.
- Pair up with someone to discuss their thinking, and then.
- Share their conversation with their larger group.

The tutor can provide 'Think-Pair-Share' prompts about a concept or topic. Give students 1-2 minutes to think about the prompt on their own. Then discuss with a partner for another few minutes.

29.

Think-Pair-Square-Share



Think-Pair-Square-Share is a more prolonged series of steps that enables the students move through the stages of individual work, paired work and group work, before feeding back to the whole class. The first two steps of think and pair are followed with an additional layer called 'Square' where two pairs work together as a new group. They share the outcomes of each pair discussion and if there are opposing views, they process these further and agree how they will report the overall discussion back to the larger group. Groups are encouraged to report back an accurate account of the collective ideas. They also decide who will be speaking. This stage is crucial for unpacking the range of thoughts that have now emerged in this cascade model of learning. This reduces the amount of answers that a tutor has to elicit from a class. It helps promote student learning as students discuss and teach each other. [See sample practitioner activity 01.](#)

30.

Pair Peer Review of Assessment Task

There are two useful possibilities for using this strategy during an assessment process. In a low-stakes assessment, students are requested to complete an individual homework assignment or short paper. Two days before the assignment is due, students provide a copy to their peer partner. Each student then takes their partner's work and (using the official rubric being used to assess the assignment), gives helpful feedback within 24 hours –so that each student might have an opportunity to respond to the feedback and make some adjustments. This will require some guidance for students in giving feedback (positive –what I liked/ areas for further development).

The danger with this first strategy is that students may also be tempted to 'borrow' their peer ideas and integrate them into their own assignment. To avoid this –a similar strategy can be used on the day that an assignment is due. Using this approach, the students will still engage in assessment literacy tasks and they can give feedback within a 24hour period. This process will help usually deepen students learning about the topic and will also provide immediate feedback that can be significant for student motivation and self-reflection on the assessment task.

31.

Read and Explain Pairs

This is an excellent strategy to use whenever you give material to students to read. Students are more likely to read it more effectively in cooperative pairs than individually. It is useful for any subject where a plethora of information or rather dense theoretical material has to be absorbed and understood by students.

How does it work?

- Divide material into sections/ paragraphs suited to class-group.
- Students form pairs A and B.
- Both read section one.

Assign Roles:

- A is SUMMARISER whose job is to turn page down and summarise the contents of the paragraph in one's own words.
- B is CHECKER whose job is to listen carefully and correct any mis-understandings and add in anything omitted.
- Both read next section.

Reverse Roles:

Continue until all the material is read and the general meaning agreed and understood by the pair.

Group Activities



32.

Case Studies

Essentially a case study is a scenario, real or imaginary, which describes an event, situation, experience, etc. which students are required to read, assimilate, analyse, devise and answer questions based on the case study. Case studies used should be relevant to the course content and relatively easy to understand. They are particularly popular in law, business, medicine, earth science, social science, and engineering related programmes. A variety of case studies can be accessed from academic sources, relevant disciplinary journals, business reports, company websites and professional journal publications.

Tutors can also write their own case studies with desired learning outcomes in mind. These can become a very useful learning resource and edited to suit different groups and changing perspectives over time.

A single case study approach can be used as a deep learning strategy throughout an entire module or programme or as a component learning strategy within a module. Sometimes a single case study can be used with all students or if combined with a group learning process, a number of different case studies can be used. In the latter scenario, each group is allocated (or may select) a specific case study. Each group will study their case over a prescribed period of time and then report on key components and their learning from the particular case. This may involve a group presentation with questions and answers on each case study–facilitated by the tutor.

33.

Case Based Learning

Case-based learning is similar but somewhat different to case study learning approaches. Case based learning usually refers to a smaller component or aspect of a study. It can be a single topic issue used for a once-off discussion focus. In Business subjects–such as marketing, case based learning may be used to explore a specific advertising campaign.

Students are provided with a case, asked to decide what they know that is relevant to the case, what other information they may need, and what impact their decisions may have, considering the broader implications of their decisions. Groups of 3-4 students are allocated time to consider responses. The tutor circulates to ask questions and provide help as needed. Opportunities are provided for groups to share responses. Discussing concepts in groups allows students time to talk through their thinking, test their ideas with others, and receive feedback and alternative views from group members. Group discussion helps students clarify their understanding and aids in retention of knowledge.

34.

Visual Displays and Gallery Walk

This methodology can be used for a range of ‘assessment for learning’ scenarios.

Sometimes it can be used very effectively at a key stage in a module where foundation learning has taken place and students are familiar with some key concepts or models. The tutor can set a task regarding the presentation of a key model or its potential for application.

It might also be used at the beginning of a learning sequence where a tutor wishes to establish what students already know about an important concept. When the learning task has been clearly explained, students can be organised into pairs, triads or small groups of four. Assign each group a learning task that they need to work on together and present their ideas on a sheet of flip-chart paper. They may be encouraged to use visuals and diagrams as part of their ideas presentation. Once they have completed their poster, ask them to display it on the wall. One member of their group will stay with the poster and help to explain it as the class circulates to look at all of the posters. Students take turns standing by their poster so that each of them have the chance to visit the other groups’ posters. This sets up a more interactive way of presenting compared to power-point presentations. There is also a significant energy in the room and a natural exchange of ideas as students circulate to view the visual representations. [See sample practitioner activity 04.](#)

35.

The Walking Debate

The walking debate will give every student the opportunity to express their opinion on the issues under discussion. The tutor will usually provide a specific learning hypothesis and seek students' reaction to it using a simple agree/disagree response. It is a very useful learning tool at the beginning of a learning sequence to test out student perspective on complex issues where conflicting evidence or conflicting theories prevail. The longer term intention here is to help students change their perspectives based on additional evidence and an awareness of the complexity in given scenarios.

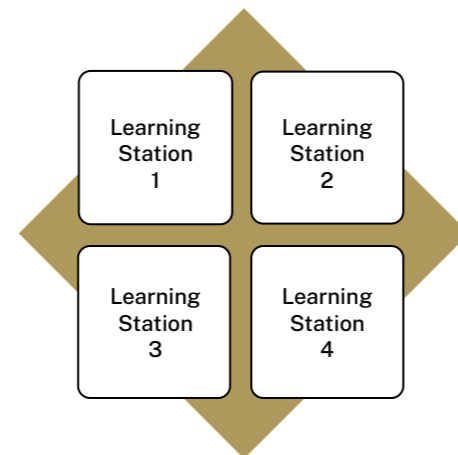
The tutor places agree and disagree signs on either side of the room and invites all students to the centre of the room. Invite students to indicate whether they agree or disagree with the hypothesis, by standing under the agree or disagree sign. Invite feedback from students after each statement is read. Ask why they took the position they did. Invite alternate speakers from each side of the spectrum to give their rationale for their position.

After a few perspectives have been shared from either perspective, invite participants to change their position if they so desire. At the outset, participants should be encouraged to change position if they hear convincing evidence they had not been aware of. [See sample practitioner activity 02.](#)

36.

Four Corners/ Stations

Four corners is used for the same reasons as the idea line up. The only difference is that students are considering several claims (four in this approach.. If more than four, create additional stations using flip chart paper). For example, a Sociology tutor might use it in the following ways – for exploration of a micro-theory or for a larger-scale review of macro-theory, “Which of Durkheim’s theories of suicide help us understand it as a phenomenon? Or – which of the following Sociological Approaches best helps us understand the Social World (Symbolic Interactionism, Structural Functionalism, Marxism or Feminism).



How it works: The tutor displays the question prominently for all to consider. Each corner/station of the classroom is assigned one theory/approach. Students are requested to go to the corner/station of the classroom that has the claim they agree with most. If they think more than one answer is correct, they should just choose one of the corners they agree with. If they don't agree with any claims, they should go to the middle of the room. Once in their corners, students should discuss with others why they chose that corner to help clarify their thinking. Request students to share and record evidence that supports their claim or choice of approach.

Students could also visit the other corners to hear what other groups are thinking.

37.

Demonstrating a Learning Perspective Visually

The tutor organises a classroom space to represent different perspectives along a continuum. The space can consist of a straight line, or a set of posts (using flipchart paper). This technique allows a tutor to use the diversity of perspectives in the classroom to generate different groups of students for discussion. Depending on student opinion or perspective, they are invited to take up a physical position that signifies their opinion or perspective.

This diversity of thinking is useful to develop a classroom climate that supports different perspectives and critical thinking. The question should be one about which students have enough prior knowledge or experience to bring to bear in the discussions.

How it works: The tutor provides a question that (s)he knows may have a continuum of responses, especially if it is asked prior to collecting significant amounts of evidence or before students have the opportunity to synthesise the evidence they have already collected.

The question is displayed prominently for students to consider. Students are directed to position themselves on a line to indicate their level of agreement in response to the question. After the students line up, they are given an opportunity to talk to the person next to them, so they can clarify their own thinking on their positioning on the line.

Student positions on the line typically indicate a diversity of thinking. The teacher can then use these positions to form groups of students with differing ideas about the question. Students then discuss their thinking and reasoning for their responses with the peers whom they have been matched. Students should be prompted to listen carefully to each other's claims and evidence and respond with evidence to counter or support the claims of other students in their group.

If the activity is used prior to an investigation, students can use the ideas from the initial discussion to continually weigh against the evidence they gather from their investigations. If the activity is used after an investigation, but prior to a whole-group meaning-making discussion, ideas from the small group discussions can be used to prepare for a whole group discussion. [See sample practitioner activity 04.](#)

38.

Conscience Alley Role Play

This role-play strategy allows students to gain a quick synopsis of all the issues related to a specific topic. It has the advantage over 'standard' role play in that it can be carried out reasonably quickly. It is a useful strategy where participants do not need to know a great deal of information about the issue as their role card will simply state who they are and how they feel about the particular topic.

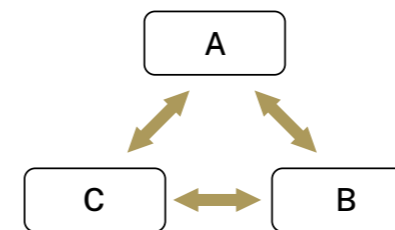
How does it work?

1. Explain the scenario.
2. Place each student into role by giving him or her each a role card which explains who they are and briefly how they feel about the situation.
3. Get students to stand in two lines facing each other, with a pathway up the middle of the room.
4. Select a student randomly and ask them to state their role.
5. Ask remaining pupils to think of one statement they would like to make to this student.
6. The selected student then walks between the lines and the remainder of the class make their statements as they pass by.
7. Debrief by asking the selected pupil which arguments they found convincing and what their view is on the scenario.
8. The activity can be repeated by selecting others to walk in role through the "Conscience Alley".

39.

Three - Step Interview

Three-Step Interview is a co-operative structure in which members of a team interview one another on a particular topic. It can be integrated into any learning episode and the content of the interview can be very flexible. The Three-Step Interview is also an effective structure for practising a range of social skills, including listening and communication skills.



Students are requested to organise into groups of three A, B & C.

A interviews B, while C records observations from the responses.

The roles are then rotated after each interview to ensure that all members of the group have had an opportunity to the interviewed. The group comes together and every member of the group has an opportunity to share their partner's responses.

40.

Throw The Ball

This strategy is a very active and useful strategy for a variety of learning scenarios. It is particularly useful as a quick revision strategy. The tutor informs students that there will be a revision activity in the next tutorial around a specific theme of cluster of topics. In collaboration with students the tutor formulates a series of questions to be posed in the revision session. The tutor poses a question and then initiates the exercise by throwing the ball to a specific student. They hopefully answer the question and then get to nominate the next person to answer a question by throwing the ball to them. Alternatively, they throw it back to the tutor and the tutor chooses the next respondent. If a response is not fully complete or is incorrect, the tutor throws the ball to another student or prompts the current ball-holder toward the correct answer.

This technique gives each student a voice and the tutor can ensure that quieter students are invited in with the ball invitation. It encourages full participation and focuses all the students on the task at hand. It stimulates class interest and attention. It gives the teacher immediate feedback.

It helps to generate a positive group dynamic and shifts the balance from teacher to students. It also assists auditory and kinaesthetic learning.

41.

Snowball/Cascade Learning

This technique allows students to think about their own responses to issues and to begin a collaboration process with those around them to consider their thoughts on the same question. It is similar to the think/pair/square/share strategy outlined previously. It is a useful way of encouraging less vocal pupils to share ideas initially in pairs and then in larger groups. It also ensures that everyone's views on an issue may be represented and allows a whole class consensus to be arrived at without a whole class discussion.

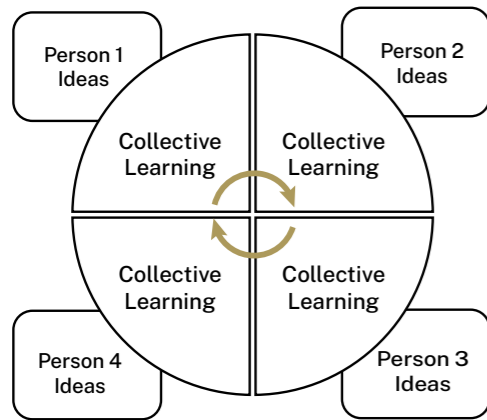
How does it work?

- A relevant question is asked or a scenario is described by the tutor.
- Students individually write down their thoughts, opinions and/or suggestions as in think-pair-square-share.
- Students form pairs and compare answers. They discuss their answers and reach an agreed answer, which they then record.
- Students move into groups of four and undertake a similar process. Another agreed answer is reached and recorded.
- The group of four becomes a group of eight and the process is repeated. A further agreed answer is reached.
- This is then repeated with the last two groups of 16 and one person from each group is nominated as spokesperson.
- A final whole-class position is then discussed and justified.

42.

Team Thinking & Placemat Learning

In this strategy, students are divided into teams of 4 students and gathered around a “placemat”. The “placemat” is organised with sections for each student to record their ideas and a central section for students to summarise their collective ideas. First, students individually think about a question and write down their ideas on their own section of the placemat. Then students share ideas to discover common answers, which can be written in the centre of the placemat.



Using a placemat technique will provide all students with an opportunity to share ideas and learn from each other in a cooperative small group discussion.

By using the placemat technique the students will:

- Have an opportunity to reflect and participate in their learning.
- Feel that their ideas are valued.
- Extend their learning by listening to the ideas of others.

The placemat strategy can be used with a wide variety of questions and prompts. It can be used to activate the sharing of prior knowledge amongst students and to help students share problem-solving techniques. It also facilitates peer review and coaching.

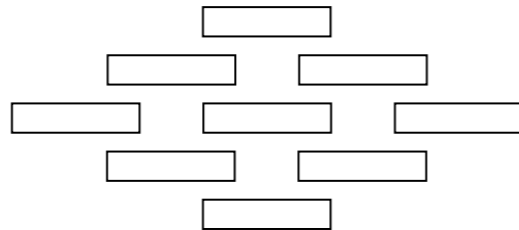
43.

Diamond Ranking

It is a very visual strategy for organising information to reflect different degrees of importance attributed to given phenomena in a specific situation.

The tutor takes nine statements or components of a disciplinary theme and asks groups of students to rank these in order. Rather than ranking them in a straight line, or in order of importance of 1 to 9, students are requested to use the diamond template (one on the top, two on the next row, three on the middle row, then two, then one. This removes the need for exact ranking and leads to a more constructive discussion that is usually more reflective of reality.

Students receive (or write out beforehand) nine ideas based on a particular question on card or post-its. If each pair is given more than nine items, they first have to select nine items, in relation to the criteria.



They place their first priority card at the top, followed by two in second place, three in third place, a further two and then the card which represents the lowest priority at the bottom. This forms a diamond shape as shown in the diagram above.

Students should strive for a consensus amongst themselves. This may involve various discussions on the order of card involving justification.

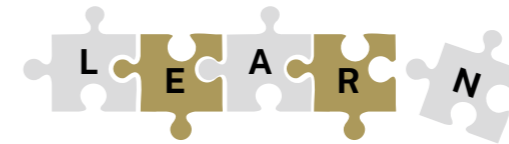
Each pair links up with another pair and shares their own rankings with the other and makes a third consensus diamond if necessary.

44.

Team Learning with a Jig-Saw Approach

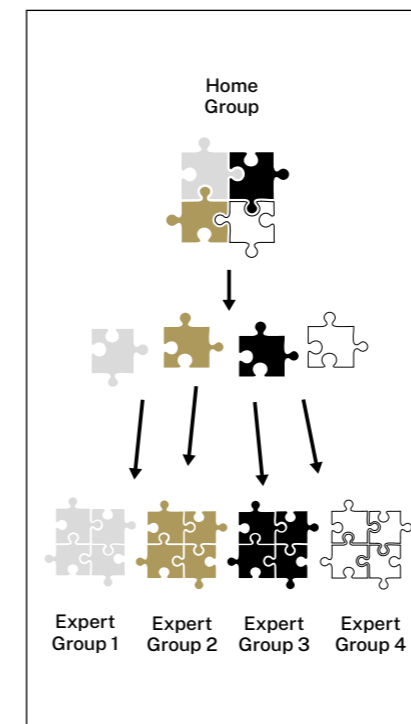
The tutor develops three or more assignment tasks, concepts, or questions around a single topic.

Depending on the learning outcomes required (and stage of learning) these assignment tasks could vary along a continuum from simple to complex.



Students are requested to self-organise into groups of 3-4 to work on their assigned topic/concept/question. (The tutor may also wish to allocate students into specific groups representative of: gender, cultural diversity, age profile, interest and capacity). After groups have some time to work on their assigned task, they spend time teaching/explaining their ideas to the larger group. The tutor encourages each group to develop an expertise and deep knowledge in their assigned component.

This method is an efficient way to tackle multiple concepts/questions and provides students with an opportunity to teach it to others. This is known to deepen understanding and increase student confidence when students are supported to adopt a team teaching role.



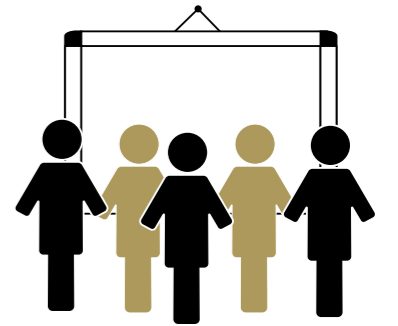
The jigsaw approach engages students both with learning concepts and with each other. The peer teaching aspect requires that each student understands the material well enough to teach it to others (individual accountability), and each student is required to contribute meaningfully to a group problem-solving component (group goals).

It is also a very effective strategy that students write a report on their overall learning at the end of a jigsaw approach. This should include a summary of their learning from within their own component or jigsaw piece but also their learning from each of the other jigsaw components, followed by an account of their learning from the completed jigsaw.

45.

Team Problem Solving at the Whiteboard

When solving a problem, (e.g., logic or critical thinking) have students work out the problems themselves, by asking them to go to the whiteboard in small groups to solve problems. If there is insufficient whiteboard space, students can still work out problems as a group, using flip chart paper and markers.

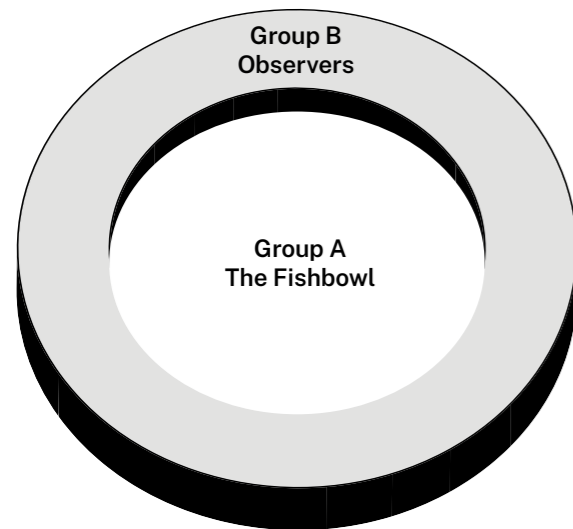


This activity helps students apply what they have learned through reading or didactic teaching. This approach can strengthen students' logical thinking processes and test their mental model of a process or equation. The activity is suitable to pair-work or groupwork.

46..

Fish Bowl Learning

A fish bowl enables a small group of students to engage in a discussion about ideas or concepts that have multiple explanations while the rest of the class observes and takes notes.



RATIONALE

In a Fishbowl discussion, students seated inside the “fishbowl” actively participate in a discussion by asking questions and sharing their opinions, while students standing outside listen carefully to the ideas presented. Students take turns in these roles, so that they practice being both contributors and listeners in a group discussion. This strategy is especially useful when you want to ensure all students participate in a discussion and when you need a structure for discussing controversial or difficult topics. A Fishbowl discussion makes for an excellent pre-writing activity, often unearthing questions or ideas that students can explore more deeply in an independent assignment.

PROCEDURE

- **Select a Topic**

Almost any topic is suitable for a Fishbowl discussion. The most effective prompts do not have one right answer or interpretation, but rather allow for multiple perspectives and opinions. The Fishbowl strategy is excellent for discussing moral dilemmas or complex situations requiring multiple perspectives and balanced decision making

- **Set Up the Room**

A Fishbowl discussion requires a circle of chairs (“the fishbowl”) and enough room around the circle for the remaining students to observe what is happening in the “fishbowl.” Typically, six to ten chairs are placed in the inside circle. This allows for a range of perspectives while still giving each student an opportunity to speak. The observing students often stand around the fishbowl.

- **Prepare for the Discussion**

Like many structured conversations, Fishbowl discussions are most effective when students have had a few minutes to prepare ideas and questions in advance.

- **Discuss Norms and Rules**

Importance of each person's perspective being heard, doing a round of each participant, participants using a respectful tone that focuses on the idea being raised/ focus on exploration & expansion of thinking/generating options/confronting complexity.

Ground rules should be agreed in advance of the activity and guidelines for the observer audience to give feedback will also be necessary. What should they be listening for? Should they be taking notes? Some tutors provide a check list of ideas/themes/arguments that they expect to be used as part of a fishbowl discussion. They might also request that observers stay alert to any missing perspectives and/or new ideas that are relevant to the theme but have not been covered in class.

Guided feedback may also be necessary for the post-fishbowl activity discussion. If there are missing perspectives, these can be offered and probed further by the tutor.

DEBRIEF

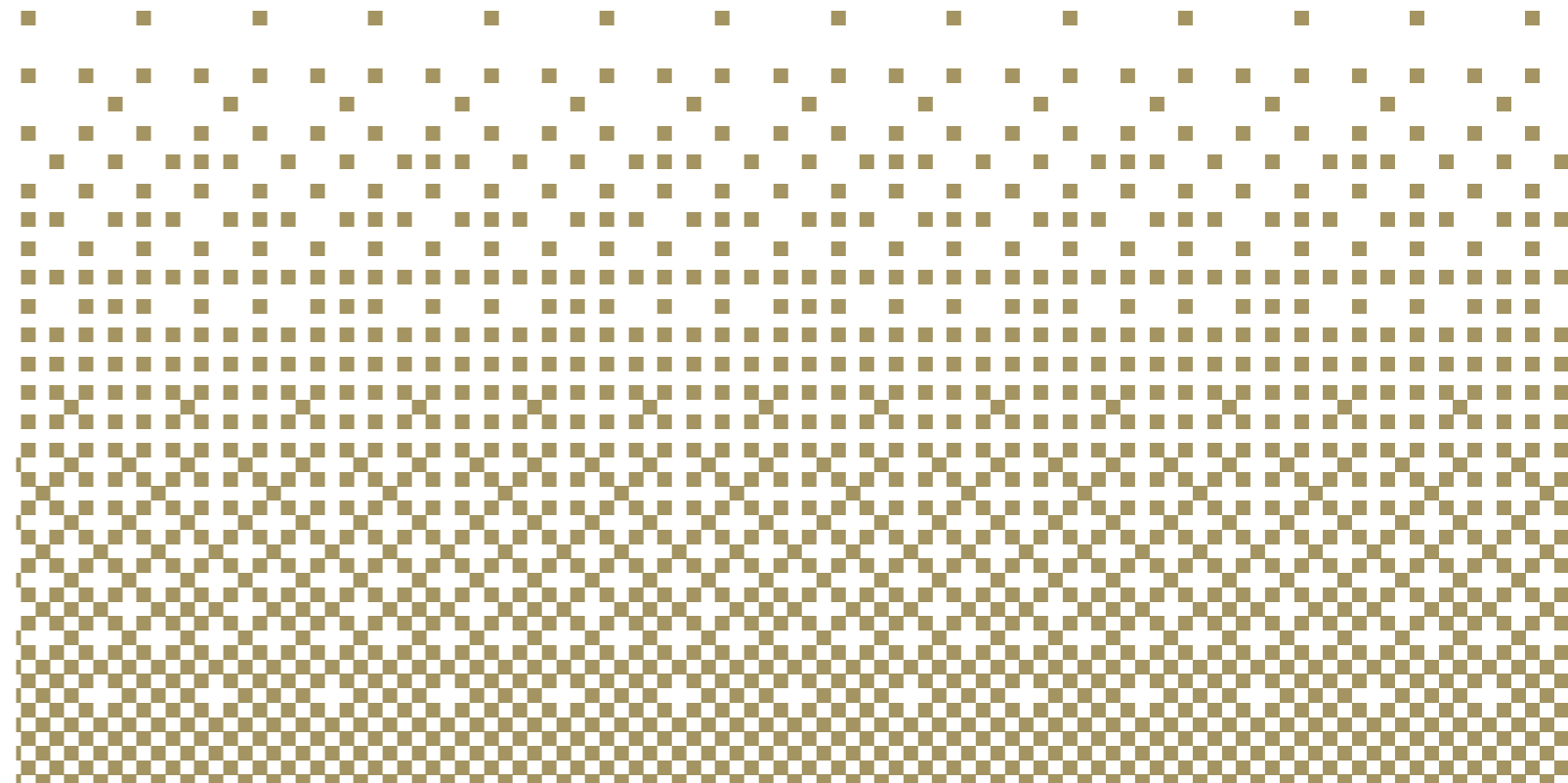
After the discussion, you can ask students to reflect on how they think the discussion went and what they learned from it. Students can also evaluate their performance as listeners and as participants.

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VARIATIONS

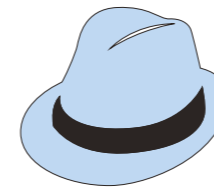
A Fishbowl for Opposing Positions: This is a type of group discussion that can be utilised when there are two distinct positions or arguments. Each group has an opportunity to discuss the issue while the other group observes. The goal of this technique is for one group to gain insight about the other perspective by having this opportunity to listen and formulate questions. After both sides have shared and listened, students are often given the opportunity to discuss their questions and ideas with students who are representing the other side of the argument.

A Fishbowl for Multiple Perspectives: This format allows students to look at a question or a text from various perspectives. First, assign perspectives to groups of students. These perspectives could represent the viewpoints of different stakeholders. The goal of this technique is for students to consider how perspective shapes meaning-making. After all groups have shared, students can be given the opportunity to discuss their ideas and questions with peers from other groups.



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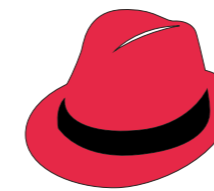
Decision Making & Six Thinking Hats - Edward De Bono



BLUE HAT - PROCESS
Thinking about thinking.
What thinking is needed?
Organising the thinking.
Planning for action.



WHITE HAT - FACTS
Information and data.
Neutral and objective.
What do I know?
What do I need to find out?
How will I get the information I need?



RED HAT - FEELINGS
Intuition, hunches, gut instinct.
My feelings right now.
Feelings can change.
No reasons are given.



GREEN HAT - CREATIVITY
Ideas, alternatives, possibilities.
Solutions to black hat problems.



YELLOW HAT - BENEFITS
Positives, plus points.
Why an idea is useful.
Logical reasons are given.



BLACK HAT - CAUTIONS
Difficulties, weaknesses, dangers.
Spotting the risks.
Logical reasons are given.

The six thinking hats technique is used to look at decisions from a number of different perspectives. It enables students to expand and develop their thinking style. It helps a group to gain a more rounded view of a situation. It encourages critical thinking and allows students to explore project ideas from six different viewpoints. It allows for feeling and emotion to be integrated into rational decision-making and it encourages creativity within decision-making process.

Possible Approaches

A large group is organised into six sub-groups and each sub-group is given a different colour hat. Each sub-group think about the decision using their allocated 'thinking hat' perspective. After an agreed time, a spokesperson for each group reports back to the main group regarding their outcome. When all groups have reported back, then (depending on the context) the group can be encouraged to make a decision or possibly generate options for further review.

Or

All groups rotate the six thinking hats –so that everyone experiences the full range of perspectives and expand their own understanding of the decision-making process. Depending on numbers in the group, it might also be an option that each sub-group adopt just two or three of the 6 thinking hats. The key issue is that within a larger group that all 6-hat perspectives are made available to the larger group.

..47.

WHITE HAT

The information seeking hat. The focus is on pure facts, figures and objective information. Questions that this group should ask could include:

- What are the facts?
- What information is available?
- What is relevant?
- When wearing the white hat we are neutral in our thinking.

RED HAT

The emotions and feelings hat. It focusses on hunches and intuition. Questions include:

- What do you feel about the suggestion?
- What are your gut reactions?
- What intuitions do you have?
- Don't think too long or too hard.

BLACK HAT

This hat plays devil's advocate. It focusses on logical and negative judgment - on why it won't work. This is the caution hat. Questions include:

- What are the errors or pit-falls?
- What are the risks or dangers involved?
- What difficulties and problems can be identified?

YELLOW HAT

This hat promotes sunshine, brightness and optimism. It is the hat of positive constructive thought. It is about effectiveness and getting a job done. Questions include:

- What are the benefits, the advantages, logical reasons for decision making.

GREEN HAT

This is the creative mode of thinking. This hat is creative and is open to new ideas, movement and provocation. In the green hat we look to new ideas and solutions. Questions include:

- What are the ideas and alternative solutions?

BLUE HAT

This is the control hat. It is cool and controlled. It tries to rule over other hats. It sets the focus, calls for the use of other hats. Blue is for planning. Let us reflect on the thinking processes used. Questions include:

- What plan can we put in place?

48.

In the Hot Seat

This activity has significant potential for a range of learning applications. A single hot seat is placed facing the group or in the middle of a circle. It can be used to create a series of roles that can be alternated as different students take the hot seat



to represent a specific brief or range of viewpoints. Students are allocated a particular character, or alternatively they think of a role themselves relevant to the issue in question. The role can be agreed and a brief written for the role in advance by an individual or a group of students.

This strategy can be used as a very effective revision tool where individual students are nominated as experts in a given topic. They are asked to prepare for a range of questions from their peers. For this purpose, it could also be organised into student pairs, who will revise a topic collaboratively and share two hot seats, whereby difficult questions are passed between both students in the hot chairs.

It is a useful strategy to encourage discussion about a particular issue and share information. It is frequently used in disciplinary areas such as Business and Enterprise where students adopt the role of entrepreneurs and present their idea for evaluation to a group. It is also used in legal contexts to create a range of scenarios for legal training.

49.

Role Plays

Role Plays can be used very effectively in a range of learning contexts. Role-plays are typically simulations of real-life situations. The learning outcome is to reproduce a practice-based scenario, which is simulated in the classroom environment.

Successful use of role-play requires some advance preparation and careful planning. A clear description of the role being played should be made available and lead in time for participants to prepare for the role-play scenario are usually very helpful.

Depending on the discipline area and the theme being explored, students can be invited to react to a specific problem. This could be in Social Work, Law, Customer Service, Politics, Medicine, Health Science or a whole range of business domains.



Role play is extremely useful for teasing out different situations and desirable responses. It is also a central strategy for skills development in safe environments where opportunities for feedback are present. It can also promote an exploration of values and ethical dilemmas requiring thoughtful and reflective insight.

As a learning strategy, it works best when the scenario is relevant and realistic. Students may also require some induction for it and be assured that any associated awkwardness is a natural feeling that will dissipate with the correct approach and the use of ground-rules for group participation. It is helpful when it is first approached in pairs or small groups so that no individual is made to feel under pressure. [See sample practitioner activity 14.](#)

50.

Using Photographs & Visuals

Photographs and visuals can be used to stimulate discussion in a wide range of learning scenarios. Good quality images can provide excellent stimulus for a range of learning situations. They are used very frequently in the visual arts, architecture, engineering, natural sciences, social science, medicine and humanities. Using visual stimulus is an important learning strategy in itself – with significant impact for visual learners.

Visuals including photographs, charts, posters and other forms can be used as:

- Learning hooks to introduce a new theme.
- As aids to sequential learning when a specialised theme is explored.
- As specific focal points for a more focused discussion on specific detail.
- As illustrations of real –life presentations of issues and phenomenon.
- As original student work that demonstrates how students have interpreted content and relationship between theory and practice.
- As aids and prompts to role-play where students act out their perceptions associated with a photograph.

A very successful learning activity is to assign students the task of actually taking a photograph that captures what they see as relevant to an issue being explored. Students are then invited to present these images to the group and to comment on their relevance to the theme under discussion. These learning scenarios are rich opportunities for shared peer learning with facilitated inputs from tutors. [See sample practitioner activity 04.](#)

51.

Group Presentations

Group presentations can be a very useful learning tool but typically require significant scaffolding for first year students. If they are being used for assessment purposes, then a culture of group presentations should be established as part of the ongoing learning dynamic before formal assessment takes place.

The development of a clear presentation brief is important and also the development of a group assessment rubric. Group members should be encouraged to:

- Engage in collaborative planning with clear identification of component parts.
- Develop a timeline for preparation of each part.
- Allow time to bring each component together and to formulate the presentation.
- Time the draft presentation and see if it complies with time allowed.
- Adjust and edit the presentation (check for accuracy in information and correctness in spelling, ensure references are included for information cited).
- Allow time for a team presentation practice.
- Presentation skills (eye contact, not reading, using visuals and screen, engagement with audience, humour, use of props) should be discussed as part of the preparation.
- If questions are being asked to team members, ensure each is aware of the overall learning arising from the process.
- Agree protocols for presentation (introduction, smooth transitions, component parts, conclusions and answering questions).
- Ensure students have a copy of the rubric being used to assess the group-work and request that groups use this rubric to assess and provide feedback to other groups.

It is also helpful if time is allowed for a de-brief from the group presentation process – so that key learning can be unpacked and presentation skills reviewed.

52..

Cooperative Learning & Group-Work

Cooperative Learning consists of small groups or teams working together as part of a learning process. Students work together to help each other, learn from each other and achieve greater learning outcomes than those frequently associated with more traditional instructional approaches.

Cooperative learning also differs from some traditional group work, because the learning task or process is structured in such a way that students need each other to complete assigned tasks. Therefore, a culture of cooperation is established with careful consideration of ground-rules, group process and an array of methodologies have been developed to assist with developing this culture.

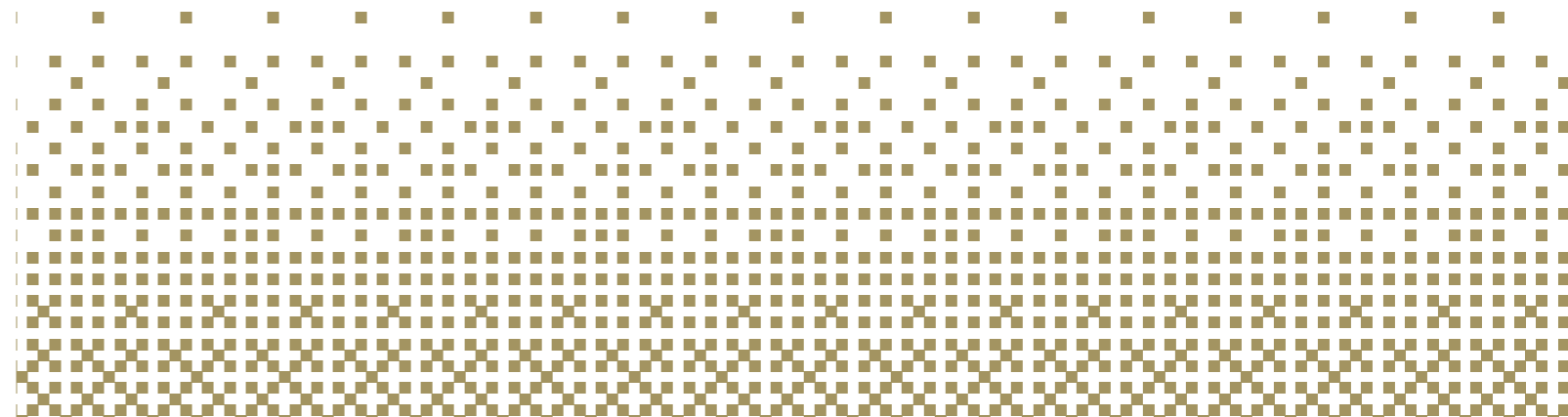
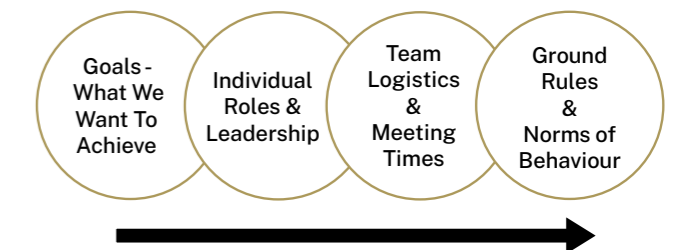
Cooperative learning is student centred learning that includes the attainment of educational goals beyond information transfer, such as development of critical thinking, teamwork and interpersonal skills, including: verbal and non-verbal communication, negotiation skills, project management skills, and conflict management.

Research evidence suggests that group-work is most successful when:

- The group-task or process is clearly explained and there is a clearly defined brief that can be consulted at different stages of the process.
- The group task or process is relevant to real life or professional practice and has buy in from students.
- Group size is limited to a maximum of four.

- The tutor should have an input into group formation based on some criteria including gender/skill level/ age profile/leadership capacity/knowledge of existing group dynamics.
- Individual roles should be clearly agreed.
- Time should be spent on developing group ground rules at the beginning of the process.
- If the group process is part of a formal assessment process, then no more than 30% of the marks should be awarded for the group component (this could be a group presentation or report or creation of an actual artefact). The remaining 70% should be based on evidence of individual learning from the process.
- Peer assessment is known to increase commitment and motivation (does not have to be formal marks – possibly a rating scale for effort) and can be included in the student's individual report. [See sample practitioner activity 01.](#)

Group Charter & Road Map



52.

TYPES OF COOPERATIVE LEARNING GROUPS

a) Formal Cooperative Learning Groups

These groups can last for a specified period of time, usually coinciding with a particular section of learning i.e. one topic or theme, project, experiment, problem-based learning, applied research project or extended assessment process. Students work together to ensure that they and their group members have learned/ understood or completed the required learning task. Any curricular area in any subject can be structured for cooperative learning.

The teacher's role is to:

- Develop a brief for the cooperative learning task.
- Clearly outline and explain the objectives/outcomes for the task.
- Organise students into groups based on desired criteria and explain the task.
- Allocate materials and resources or point students towards these resources.
- Monitor progress and intervene at crucial stages of the learning process.
- Evaluate learning and help students to process how well the group functioned.

If students need help, they are encouraged to ask another student before asking the tutor. Students share materials, ideas and support and encourage each other. They orally explain and elaborate on concepts.

b) Informal Cooperative Learning Groups

Informal cooperative learning groups can last from a few minutes to an entire class period. They tend to be more spontaneous depending on learning context and are less structured and systematic than formal cooperative learning groups. They can be integrated into direct teaching such as a lecture, demonstration, practical skills session, tutorial or film/video review session. These quick informal small groupings are used to:

- Create a culture of cooperation and group learning.
- Provide a change in stimulus from teacher led to student led learning.
- Focus students' attention on specific material.
- Establish a context for the group learning task.
- Set expectations as to what will be covered.
- Ensure that students cognitively and affectively process relevant material.
- Have opportunities for feedback and debriefing.

Informal cooperative learning groups can also ensure that gaps in understanding and misconceptions can be corrected. The teacher can set questions and problems relating to the material being covered. Three to five minute discussions before and/or after a direct lecture period and two to three minute discussions interspersed throughout direct teaching/demonstration are recommended.

53.

Nominal Group Technique (NGT)

Nominal group technique (NGT) is a structured method for group brainstorming that encourages contributions from everyone and facilitates quick agreement on the relative importance of issues, problems, or solutions. Team members begin by writing down their individual ideas. They then select which idea they feel is best. Once team members are ready, everyone presents their favourite idea. Suggestions are discussed and prioritised by the entire group using a point system. NGT combines the ratings of individual group members into the final weighted priorities of the group based on the importance attributed to each.

Use Nominal Group Technique When:

- Some group members are much more vocal than others.
- Some group members think better in silence.
- There is concern about some members not participating.
- The group does not easily generate quantities of ideas.
- Some or all group members are new to the team.
- The issue is controversial or there is heated conflict.

Nominal Group Technique Steps

1. State the problem, question, or issue that is the subject of the brainstorming and ensure that everyone understands.
2. Each team member silently thinks of solutions or ideas that come to mind when considering the problem. Each student then writes down as many ideas as possible in a set period of time (5 to 10 minutes).

3. Each member verbally offers one idea and the facilitator records it on the flipchart.
 - No discussion is allowed, not even questions for clarification.
 - Ideas do not need to be from the team members' written lists. Indeed, as time goes on, many ideas will not be found on their original lists
 - A member may "pass" his or her turn and may then add an idea on a subsequent turn.
 - Continue around the group until all members pass or until an agreed-upon length of time.
4. Discuss each idea in turn. The wording can be changed when the person who proposed the idea agrees. Ideas can be removed from the list only by unanimous agreement or when there are duplicates. Discussion may clarify meaning, explain logic or analysis, raise and answer questions, or state agreement or disagreement. The group can also combine ideas into categories.
5. Prioritise the recorded ideas in relation to the original question using voting or list reduction. Typically, the solution with the highest total ranking is selected as the final decision. Other variations include estimating the amount of work required to implement each solution by assigning it a point value; the higher the point value, the more work involved.

54.

Brainstorming

This is a more spontaneous group process than Nominal Group Technique and is usually successful as a group energiser for a specific episode of learning. Brainstorming combines a relaxed, informal approach to problem solving with lateral thinking. It encourages people to come up with thoughts and ideas that can, at first, seem a bit crazy. It is a conference technique of solving specific problems, amassing information, stimulating creative thinking and developing new ideas, by unrestrained and spontaneous participation. Some of the ideas generated can be subsequently crafted into original, creative solutions to a specific problem. Brainstorming can also be used to affirm what students already know about a topic or as a creative technique to problem solving.

The teacher poses an issue or prompt and requests as many ideas as possible from the whole class asking questions such as:

- What are the characteristics of...?
- What are the advantages of...?
- What caused...?
- This challenge or problem can be solved by...?

The teacher or a student compile the answers on the board. The ideas can be classified or organised into groups. It is important to be non-judgemental at this stage. The teacher can also prompt the process – if he/she notices that important concepts are missing following the brainstorming process.

The teacher could also divide the larger group into smaller groups to process the information and devise their solution to a specific challenge posed. For this purpose, post-it notes can be used by subgroups to organise their response and propose a solution.

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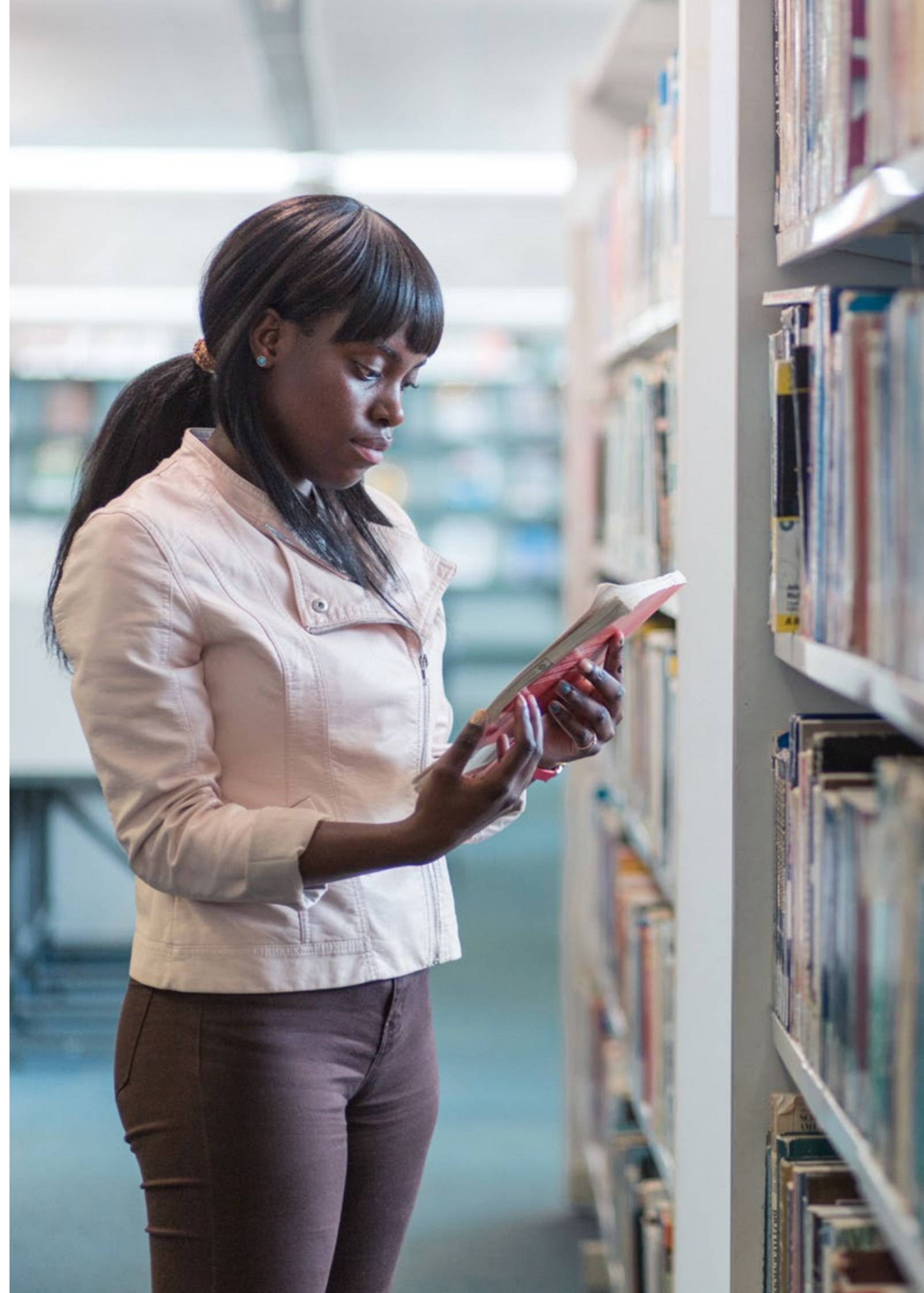
Video Analysis

Video analysis (including use of well-chosen Youtube clips, extracts from a longer video or film, relevant documentary, TV series, commercial video or self-produced video) can be successfully used across all disciplinary areas as a very effective learning strategy.

- Video analysis offers significant potential for the following learning contexts.
- Provides a stimulus for an early learning hook and doorway into a theme.
- Provides insights to real-world dilemmas from professional practice.
- Has capacity to illustrate complex components and themes.
- Enables a discussion on real-world application of theory.
- Can be divided into segments for specialised analysis and focused discussion.
- Will enable visual and auditory learners to engage successfully.
- Has the potential to elicit a range of interesting learning responses that can be shared among a group.
- Will provide energy and motivation among a learning group when it is relevant and integrated into learning objectives.

It is important that there are clear objectives in using the video chosen. It can also be very helpful if students are requested to view a video with specific questions in mind (sometimes using a learning worksheet) and dividing students into pairs. When the relevant extract is shown, then the students have a chance to discuss their responses and enter them on the worksheet. It is also possible that each pair or group share their responses to the questions posed with the whole group.

A video can also be used at different stages across a module – when component parts are isolated for discussion at key stages of learning.



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Enquiry Based Learning

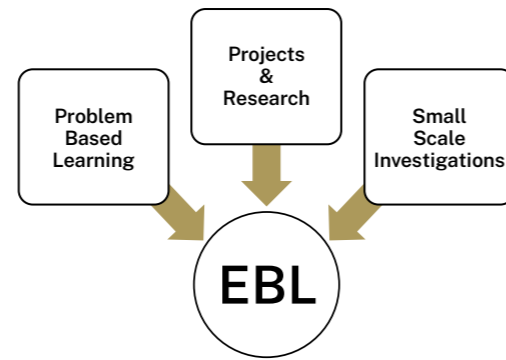
Enquiry-based learning (EBL) is a higher order approach to learning in which learning is characterised by a process of tutor facilitated enquiry and the student assumes increasing responsibility and autonomy over their own learning.

Characteristics of EBL

- Learning is essentially student-centred and self-directed with an emphasis on group work and use of library, web and other information resources.
- Lecturers become facilitators, providing encouragement and support to enable the students to take responsibility for what and how they learn.
- Students reach a point where they are not simply investigating questions posed by others, but can construct their own research questions and convert research findings into useful knowledge.
- Students gain not only a deeper understanding of the subject-matter, but also the knowledge-development and leadership skills required for tackling complex problems that occur in the real world.
- It is problem or question driven.
- Involves critical discourse and higher order learning including analysis, synthesis and evaluation.
- Smaller group learning is usually shared with a larger group and possibly with an extended audience that may include faculty staff or guests from relevant industry.

EBL can include:

- Problem-based learning where a real-life problem or scenario is posed and students work over a period of time to explore the problem and suggest solutions.
- Project and research type work, where evidence is gathered, analysed and results in a report with recommendations usually presented to a larger group.
- Small scale investigations, field work projects, research.



EBL encourages students to acquire essential higher order skills for life-long learning and it can be a very useful learning approach to encourage graduate attributes such as creativity, independence, team-working, goal-setting, problem-solving and project management.

Integrating Enquiry based learning into overall learning approach

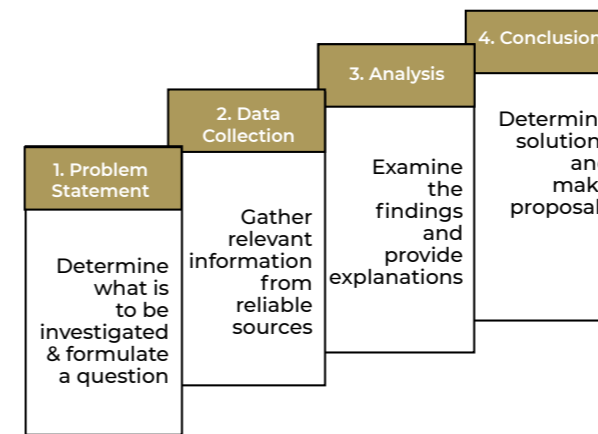
To prepare students for an enquiry-based learning approach, it is helpful that the tutor engages in a co-constructivist style of teaching that embraces the following characteristics:

- Tutor becomes more of 'guide on the side' than 'sage on the stage'.
- Uses a questioning technique that focuses on higher-order thinking and encouragement of student capacity to discover answers...(use of what if....why... how might that look...have you thought of looking at...how does that connect with...)
- Avoid accepting a single statement as an answer to a complex question.
- Prompts students to extend their thinking, communicate their ideas, see issues in a different light or consider other ways of approaching a problem.
- Facilitates learning through group work, discussion boards, peer feedback, library-based resources.

..56.

- Avoids giving factual information in response to student questions, but typically refers students to possible sources.
- Promotes learning as a process for example, break an assignment down into stages, giving feedback, support and credit for each stage.

The EBL Process



EBL can involve individual or group research, study, scientific experiments, observation, interviews, and site visits. As students work through the project, they learn the necessary factual knowledge while gaining new ideas and building new theories about the topic. Students can also make interdisciplinary connections and gain a helicopter view of the world.

The inquiry process is iterative, not linear: Students might refine or reject their original research question as they progress through the project and learn more about it. Discussion and reflection are a vital part of the inquiry process. Discussion allows students to share the results of their investigation, compare their thoughts with comments from others, and share personal experiences in order to make sense of their ideas.

Through reflection, students examine whether or not they have reached an adequate resolution to their question, what other conclusions could be made, and what new questions result from the investigation. At the end of the inquiry process, students communicate & evaluate their results.

Benefits of EBL

- Fundamentally, students will be more engaged with the subject. Learning is perceived as being more relevant to their own needs and intrinsic motivation increases.
- Students can expand on what they have learned by following their own research interests and developing advanced research skills.
- EBL allows students to develop a more flexible approach to their studies, giving them the freedom and the responsibility to organise their own pattern of work within the time constraints of the task.
- Working within and communicating to a group are vital for a student's employability.
- Self-directed learning not only develops key skills for postgraduate study, but also leads to original thought that contributes to larger research projects, papers and publications.
- For teaching staff, developing an EBL module helps to understand the learning process and the changing needs of students.

Considerations for Module Leaders & EBL Facilitators

- As part of the module induction - provide a rationale for using enquiry learning and demonstrate its value to them as participants.
- When using EBL provide students with guidelines and clear signposts for different stages of the process.
- Be clear about your expectations regarding course work and assignments.
- Set milestones for each assignment to assist students in staying on track and meeting deadlines.
- Do not underestimate the time commitment for tutors to set up an EBL project; to scaffold learning with relevant resources, to provide feedback during the process, to engage in evaluation, and to manage potential issues that arise during an EBL course.

57.

A Guest Speaker

A Guest Speaker can be invited to meet students because of his/her expertise in a given area or to stimulate discussion and interest in an area of professional life linked to the chosen area of study. There are elements of preparation that really help student engagement. These include the following:

- Identify two/three potential guest speakers for a given module.
- Engage students in a discussion about these potential guest speaker profiles (Sometimes professional placement contacts and other professional networks can be very useful sources here). Potential speakers can also like engagement with Higher Education Institutes and with potential graduates. Former graduates can also be very credible guest speakers.
- Engage students in a discussion about the aims of such a visit and what questions they should ask. It is helpful to agree some questions in advance but to also leave room for more impromptu questions.
- When a guest speaker has confirmed that they will visit, provide them with a brief in advance about the group e.g. what they are studying, stage in the process and what the focus of the visit will be.
- The guest speaker should know the format of the visit e.g. mini-presentation, followed by question and answer. A question and answer session following a brief presentation is generally better for student engagement than a long guest speaker input. If it's just another lecture without time for student engagement, then it may not be as successful.
- Also consider a virtual guest speaker using teams/zoom/skype etc.
- Consider linking the guest speaker input into an assessment, whereby students write up an evaluation of their learning (possibly linked to a key learning outcome for the module).
- It may also be possible to get permission to record the guest speaker episode –so that it can be used for subsequent groups and a resource library of virtual guest speakers is created. [See sample practitioner activity 17.](#)

58.

The Backward Test Using Pairs or Triads

This strategy has an interesting impact on student learning and can be an excellent revision strategy before an official assessment or exam period. Research evidence also indicates that the more students are involved in discussions about assessment the greater their engagement in the learning process.

The tutor (possibly in collaboration with students) designs a set of exam questions. These questions (or sample questions) are circulated to students in advance of the formal assessment. Then in pairs or triads, students prepare the answer to an allocated question. A group member then explains the answer to the other groups. Depending on the answer or solutions provided and the accuracy and inclusion of key information/insights, the tutor can ask probing questions of the group and make suggestions for improvement or invite responses from the larger group.

Sometimes it may also be appropriate to share the marking rubric being used to assess these solutions and to ask students to use the rubric in assessing the answers provided by each group.

59.

Site Visits, Field Trips

Field trips and site visits are a successful way to give your students real-world exposure to the content they are exploring. There are many authentic real-world experiences that cannot be replicated in the classroom. A field trip affords students the interaction needed to get a deeper understanding of many concepts.

Field trips are time-consuming and sometimes expensive to organise (particularly if they include bus transport and admission fees). Therefore, it is important to maximise the learning opportunities associated with them. Some helpful approaches include:

- Engagement of students in the research and selection of fieldtrip destinations.
- Collective consideration of logistics, costs, health and safety issues.
- If a fieldtrip or site visit is agreed, then it needs to be promoted enthusiastically and made as attractive as possible so that all students participate.
- Sometimes a link to an assessment task is a good carrot here.
- Engage students in a health and safety briefing.
- If any student has any special learning need or condition that may hinder them from participation, encourage them to disclose this so that you can advise them appropriately.
- Communicate effectively with relevant personnel for the field trip/site visit location.
- Develop an Itinerary and ensure the timetable and expectations are realistic. Do not overcrowd the schedule. Allow time for discussion and group learning.
- Prepare students in advance with material and resources that relate to the site or fieldtrip destination.
- Use technology to involve them with reconnaissance visits using relevant websites.
- Develop a pre-fieldtrip planning form or resource that encourages students to plan their learning goals for the fieldtrip/site visit.
- Follow up with a de-brief and more information that relates to the trip. Link all learning back to the aims and objectives for the field trip.
- Consider setting an assessment task or exam question that will give students opportunities to outline their learning in a structured way. [See sample practitioner activity 10.](#)

60.

Virtual Field Trips

Virtual fieldtrips may be a very helpful alternative to real-world options. They will require much less logistical planning, few health and safety regulations, less time restrictions and will invariably be much cheaper. They are increasingly possible through digital technologies, virtual learning platforms and the availability of online video resources including youtube.

There are also learning platforms such as: *Discovery Education, Learn Around The World, National Geographic*, and various virtual tours of different museums. (See associated websites below).

www.discoveryeducation.com

<https://lsc.org/education/for-teachers/lsc-at-your-school/electronic-field-trips>

<https://learnaroundtheworld.com/>

<https://www.nationalgeographic.com>

61..

E-tivities

The term E-tivity was coined by Gilly Salmon in 2002 to describe a framework for facilitating active learning in an online environment. An E-tivity refers to learners interacting with one another and with the course tutor (who Salmon refers to as the e-moderator) in an online communication environment (e.g. bulletin board/chat room/VLE) in order to complete a particular task.

E-tivities generally involve the tutor providing a question, stimulus or challenge, which Salmon refers to as the 'spark'. Learners then take part in an online discussion or activity which requires them to respond in some way to the 'spark'. This generally involves each learner providing an individual response and then commenting on, or contributing to, that presented by other group/course members. A summary, feedback or critique can then be provided, often by the e-moderator or by the participants themselves.

Discussion Forums

These are very useful learning options in VLE supported learning environments. Students are typically requested to respond to a question posed or an aspect of a relevant theme being explored. Typically, students post a written response (word-count limits can be set) to a group forum. A peer discussion can then follow whereby participants can respond to each other's post. The teacher can set up the activity so that each participant has to respond to at least one other post. The teacher can then moderate the discussion by posing further questions or comments. They might also choose to summarise the key thoughts and integrate them into the next formal learning episode. [See sample practitioner activity 3.](#)

Chat Rooms

This function is available in some online learning platforms including Zoom and Microsoft Teams. It enables the facilitator to assign participants to a chat room for a group discussion. Groups of three to four are optimal as the larger the group, the greater the challenge for participation. Here the tutor can assign a topic and a time limit and then invite a group leader to report back on behalf of each group. This is a type of plenary where peer-learning can be exchanged, absent perspectives noted or further questions identified.

Wikis

A wiki is a website created collaboratively by multiple users or a group of learners. It could also be considered as a collaborative content management system created and revised by a participant group so that it is current and active. It is based on the idea that within any learning community or network a great deal of knowledge exists among members. Sharing this knowledge and information can therefore create a very successful sense of group identity and of improving disciplinary knowledge.

The wiki format is ideal for sharing and getting feedback from team members. In educational settings wikis can be used to:

- showcase group projects, design options and resources.
- demonstrate outcomes from a group research process.
- find group solutions to a problem.
- create an active and interactive repository of relevant experiences from which others can learn.
- enable feedback for a variety of learning situations.

In educational settings when wikis are being used as learning strategy, it is helpful when the goal of the wiki is clear and clearly explained to the students designing it. It may also be desirable to moderate the wiki to ensure contributions are relevant, correct and appropriate. The tutor may also provide clear instructions on how to use a wiki and how to contribute. Some guidelines and ground rules on group collaboration may also be appropriate.

Blogs

Blog is short for web log. Blogs resemble an online diary or journal, usually created for an audience. A blog is relaxed in style, making it an easy and comfortable way for students to get writing.

..61.

Blogs can be written on almost any topic. Readers can usually leave comments, which lead to discussions about the blog's content. For example, a blog about an interesting aspect of a discipline or a theory-practice issue or dilemma can be a very successful way of engaging students. Blogs can be used in the following ways:

- to stimulate interest in a particular topic and to generate content.
- to publish assignments and resources.
- to help students' master content and improve their writing skills.
- to publish student writing.

Podcasts

A podcast is a digital media recording distributed via the Internet. It can be a single podcast on a single issue or it can be a series of podcasts on a single issue. Most podcasts are in audio format. Podcasts are played on a computer or any mobile device that plays digital audio files, including smart phones, iPods and MP3 players. Tutors can record their own podcasts and make them available to students or students can also create their own podcasts and make them available to other students and to other audiences. There are various podcast tools available including: Audacity and SoundCloud.

Podcasts are a very effective learning tool as students can access them at their own leisure and press pause when they want to reflect on a key message. They can also replay them several times and listen via headphones while travelling. Helping students to create their own podcasts can greatly enhance their sense of identity and confidence.

Multiple Choice Questions (MCQs)

Multiple Choice Questions (MCQs) are a useful formative and summative assessment tool. They can be easily set up and used as an embedded assessment tool within most VLEs including Moodle. They are easy to administer, assess, and integrate into online teaching practice. MCQs are best combined with other forms of assessment (e.g. are not for sole use). They are best suited to assessing knowledge and can be set up so that students can self-assess their own progress.

If they are used to assess higher-order thinking skills, then this requires significant planning and thinking about the types of questions needed to engage students in higher order thinking, analysis or evaluation. They are most effectively used to test the acquisition of knowledge and accurate recall of facts. As an assessment tool MCQs are typically associated with objectivity and reliability but not always with high potential for washback on learning or for authentic real-life assessment.

Whiteboard

Using a whiteboard allows all students to work simultaneously using an online drawing tool. Students can use this space for mind mapping, planning out ideas and designing a solution that may be linked to in-class tutorial work or group assignments. Students can be assigned to groups and assigned a task to work on. The tools within the white board enable all students to draw, write and upload diagrams, images and charts. The group can draw and add to the diagram and when finished they can save their work as an image and share this with the rest of the class or their lecturer.

Online Shared Spaces

For students working on activities that involve a group assignment, or projects that are being worked on over a semester, an online shared space is a useful tool for storing files, sharing files, collating material from each member of the group and for tracking progress. Class Notebook in MS Teams, GoogleDocs, and PBWorks are some examples of shared spaces that can be utilised for such activities.

Online Reflective Journals

Setting up an online reflective journal is an efficient approach for students to complete reflective journals when they are out on work placement. Class Notebook in MS Teams allows a lecturer to setup a journal for each student. The lecturer can send a template to each student to complete within the Notebook. They can monitor their progress from week to week and provide written and audio feedback to students with the Notebook.

PRACTITIONER GUIDE

<u>01</u>	Liam MacCarthaigh Department of Arts & Digital Media <i>Pair-Share and Group-work for Collaborative Idea Development in a Television Production Context</i>
<u>02</u>	Dr. Martin Fitzgerald Centre for Pedagogical Innovation & Development (CPID) <i>Metaphor Analysis as a Reflective Learning Process & Walking Debates as an active way to encourage discourse and conceptual understanding</i>
<u>03</u>	Dr. Tracey Larkin Department of Applied Science <i>Use of weekly discussion forums for module engagement and assessment with on-line flexible learning students</i>
<u>04</u>	Dr. Catherine-Ann O'Connell Centre for Pedagogical Innovation and Development (CPID) <i>Using Visuals as Learning Hooks The Wonderful World of Babies</i>
<u>05</u>	Seán Conway Department of Mechanical & Automobile Engineering <i>Interactive Electrical Circuit Assessment</i>
<u>06</u>	Dr. Matt Cannon Department of Applied Social Sciences <i>Using Explainer Videos as an enhanced learning activity</i>
<u>07</u>	Patrick Browne Department of Electrical & Electronic Engineering <i>Using WebWork Platform for Student Engagement & Continuous Assessment in Mathematics</i>
<u>08</u>	Mairead Dennehy Department of Applied Science <i>Going on a blind date with a journal paper!</i>
<u>09</u>	Dept of Applied Social Sciences Team TUS - Thurles <i>Enhancing student engagement within a 'climate of care' during Emergency and Remote Teaching</i>

ACTIVE LEARNING STRATEGIES

<u>10</u>	Dr. Sinead McMahon Department of Applied Social Sciences <i>Field Trips - The Role of the Workhouse in Shaping Irish Social Services</i>
<u>11</u>	Paul Keating Dept of Digital Art & Design <i>Games Based Learning (GBL) Game Making as Experiential Learning</i>
<u>12</u>	Kevin Healion Department of Applied Science <i>Environmental Action on the TUS Thurles campus</i>
<u>13</u>	Pamela O'Brien Department of Information Technology <i>Using an 'Escape Box' as a strategy for student engagement</i>
<u>14</u>	Emma Aherne Dept of Applied Social Science <i>Use of Work Based Role-Plays for developing Assertiveness Skills</i>
<u>15</u>	Dr. Derek McNerney & Dr. James Griffin Department of Marketing, Enterprise and Digital Communication <i>The Final Year Project (FYP) - The Road to Self-Reflection & Self-Assessment (First Steps)</i>
<u>16</u>	Ashling Sheehan Boyle & Emma Aherne Department: Applied Social Sciences <i>Creating and cultivating climates of care in online Learning environments during COVID-19</i>
<u>17</u>	Dr. Michael F. Ryan Centre for Pedagogical Innovation & Development (CPID) <i>Speaker's Corner Events for student engagement</i>



01. Pair-Share: Group Work

Liam MacCarthaigh

Department: LSAD Dept of Design

Title of Active Learning Strategy

Use of Pair-Share and Group-work for Collaborative Idea Development in a Television Production Context.

Summary of Teaching & Learning Context

In November 2019, the Screen Industry Education Forum sought to bring industry practitioners and education providers together in partnership to understand the television and film skills development landscape. A theme of discussion was the falling numbers of students applying for TV and film courses and suggested that the lack of 'hands-on' practical learning was turning students away from 3rd level education in the sector. In response, I developed a television studio activity that reflected a real-world experience to provide the learners with that 'hands-on' practice that the forum identified as lacking. The activity formed part of the assessment of the 3rd year Creative Broadcast and Film Production's module in Multicamera Production and involved sixteen learners collaborating to develop a single idea for a television programme and subsequently taking that idea and producing it for real in a TV studio.

Implementing the Strategy

To begin with, in a 'think-pair-share framework', learners were initially asked to discuss in groups their thoughts on what made an interesting TV show, before coming up with outline ideas for their own studio-based TV show. Group work in the form of round-table discussions provided a platform for collaboration, with student, content and instructor interacting in a fulsome manner. After these early brainstorming sessions, the learners moved onto choosing the best option to move forward with. This involved sharing their ideas with their peers, while following the real-world process of pitching ideas to a panel of TV executives. After consideration by the whole class, one final idea was chosen to progress onto a production phase, which took place over the following four weeks.

A social approach to interaction was encouraged by way of group tasks and efforts made to simulate a real-world environment. Hooked by a discussion on effective TV shows, learners linked new learning to prior knowledge by combining relatively small tasks to form a larger end-product. The final part of the process was for each learner to produce a reflective self-evaluation of their experience, leading to further class discussion on what worked and what didn't.

Observations/Reflections

Allowing the learners more creative freedom in their own learning and to work together to develop an idea of their own choosing, gave them a sense of ownership in their own goal setting. The principle of active learning being multi-faceted was evident, in the sense that engagement involved the physical, social and cognitive domains. Achieving a higher level of learning was guided by giving emphasis to the learner doing the work rather than being told how the work would ordinarily be carried out. Critically, the learners were more engaged and more willing to participate.



02. Metaphor Analysis & Walking Debates

Dr. Martin Fitzgerald

Centre for Pedagogical Innovation & Development (CPID)

Title of Active Learning Strategy

Metaphor Analysis as a Reflective Learning Process.

Walking Debates: an active way to encourage discourse and conceptual understanding.

Summary of Teaching & Learning Context

I use a metaphor analysis process with most of my students across all modules. During the course of the module, I invite students to identify a metaphor that would capture their personal growth or understanding of the module concepts as the module progresses. Students then develop the metaphor and link it to the module through reflection and dialogue with other students. At the end of the module, I ask students to make a representation of the metaphor, bring it to class and share their metaphor with the group in a short two-minute presentation. They must also write up a short (250-word) description of the metaphor linking the metaphor to concepts on the module and their current understanding of them.

Implementing the Strategy

I have observed student reaction to this process as initially sceptical and uncertain. As the process evolves however, the engagement with the metaphor grows and the ongoing discussion clarifies the idea for students and they begin to find it interesting. It is a marvellous way to link both the cognitive and creative processes. The final presentation of the metaphor is often a very powerful session with students expressing real understanding and sharing inspiring and creative ideas.

Your Observations/Reflections

The lovely thing about this strategy is that there are no specific resources required. However, it is important that opportunities be created during the course of the module for students to discuss (with the tutor and each other) possible metaphors and to reflect on those that might be suitable. This makes the final presentation more informative and effective.

Any Recommended Resources

<https://files.eric.ed.gov/fulltext/ED514704.pdf>
Some examples of metaphors chosen for *My Leadership in Education Certificate*;

Cello
Piano Keys
A Star
A Bridge
A Mountain
Hockey player – Defender
Team Captain
Beehive
Lego
Directing a Play
Marathon
Rugby Scrum
Cathedral
Open Book
Bicycle
A poem about Leadership
Pot/Clay – Flowers
Symphony Conductor
Garden
Food Processor
Conductor
A Tooth

Walking Debates: an active way to encourage discourse and conceptual understanding.

Summary of Teaching & Learning Context

A walking debate is a useful and fun strategy to develop students' communication and critical thinking skills. In the best walking debates, you will see a lot of movement as students' minds are changed by powerful arguments made by their peers.

Implementing the Strategy

You may need to clear a space at the front or back of your classroom to allow students to move freely.

Tack three sheets of paper to the walls. One sheet should say 'Agree', opposite that, you will hang 'Disagree' and somewhere in between you will hang 'Not Sure'.

You will need a pre-prepared selection of debate topics or statements. A quick review of module topics and concepts should provide you with plenty of ideas.

Having pinned three signs to the wall (Agree, Disagree and Not Sure) the tutor calls out the motion for a debate and all students must move to the sign that corresponds with their opinions. Students are then asked to explain/justify their position.

If something that a student says strikes a chord with other students, they can signal their change of opinion by physically moving towards the student who is speaking.

You can be creative with the 'rules' of a walking debate – there is no fixed way of organising this.

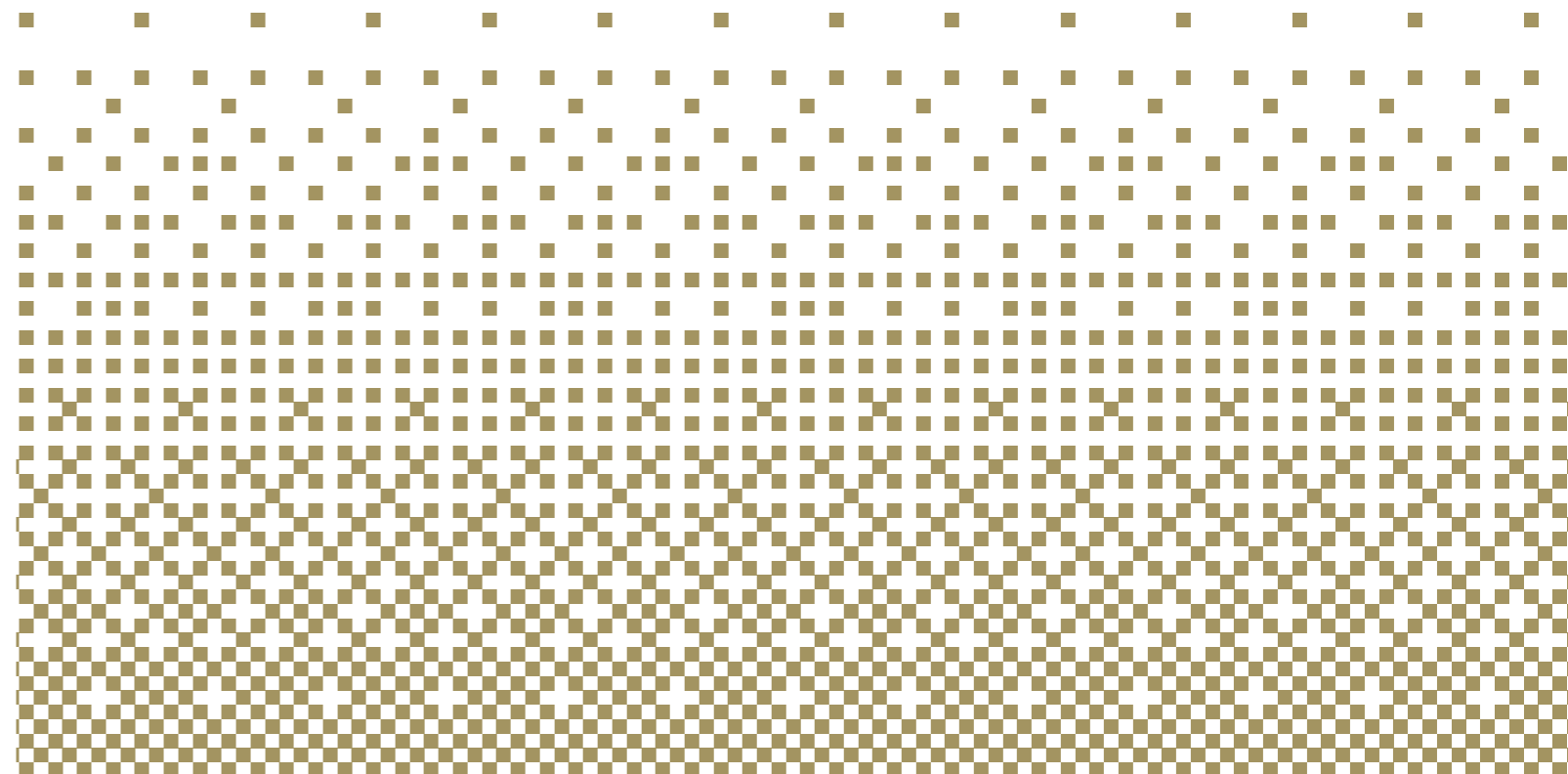
Your Observations/Reflections

This is an activity that requires you to experiment as group dynamics vary, some classes will engage with this instantly, and some may not.

If you find that students' ideas are not very developed, it might be a good idea to build some thinking time into the exercise. You could also allow time for student to discuss their opinions in pairs or threes before asking them to share with the room at large.

When you first try a walking debate, it may be necessary for you, as tutor, to continually ask questions and prompt people to explain or elaborate. As your class get used to the strategy you will be able to step back more and allow the students to challenge and rebut each other's arguments in a respectful manner.

In my experience, students find this process energising and engaging and they must have a view on the issue to justify the physical position they have taken up in the room (agree/disagree/not sure). They cannot just sit in their seat and remain neutral.



03. Discussion Forums

Dr. Tracey Larkin

Department of Flexible Learning

Title of Active Learning Strategy

Use of weekly discussion forums for module engagement and assessment of on-line flexible learning students.

Summary of Teaching & Learning Context

On-line flexible Level 7 certificate students require a mechanism of continuous engagement. The weekly discussion forums are a mechanism for the lecturer to check student engagement and for the student to engage with the learning and with other students in their online class.

Implementing the Strategy

The discussion forums follow the weekly lectures in terms of the topic at hand. For example: *Following this week's lectures on leadership I (and the rest of the group) would like to hear your opinion on a leader that you believe to be a great leader and why?*

The student must firstly consider what they have learnt in terms of leadership styles and then apply that knowledge to their selection of a 'great' leader with a rationale in terms of leadership style and achievement. A typical answer would be:

Musk is an example of a transformational leader. His ideas are so extreme and futuristic that it inspires others to follow in his direction. He has a bold, persistent personality that will not let him accept failure. He encourages others to strive for better results and believes in personal transformation and hard work.

The allocation of an assessment weighting to the weekly discussions further encourages and ensures the students participation.

Your Observations/Reflections

The impact on student engagement & learning is significant:

- Students can see that other students have actively engaged and that they should participate also. Hence the discussions at the very basic level encourages weekly engagement.
- Through the discussion forums posts, students make their own meaning from their learning based on their relevant knowledge. This provides critical thinking, and ownership of their learning while applying theory to practice.
- As discussion forums are visible to all, the students may learn from the other student submissions to further learning and deepen knowledge on the topic.
- There is also the opportunity for feedback (via reply) and some students then enter into discussions with others to create peer engagement and a shared learning experience.

Communication
discussion-
please
participate
here.

In terms of
effective
communication,
what do you
feel is the
greatest
communication
mistake that
either you or
another
commonly
make? Please
detail this and
the steps you/
another could
take to
rectify this.

Student Engagement (example):

I believe one of the biggest mistakes with effective communication is avoiding challenging conversations. This is a common mistake made by individuals trying to improve their communication skills as we all try and avoid awkward and tricky situations. Avoiding such conversations can be very detrimental for an organisation as often these are the most important conversations that need to be had in order to drive the business forward.

Student Reply (example):

Great point. Avoiding difficult conversations for not knowing how to go about it or how to prepare for them is a common and major issue. Organisations should offer a robust HR policy with clear guide for management on how to deal with such issues, starting in recognition of human emphatic nature and the sensitive nature of difficult conversations. Failings in management of confrontation / difficult conversation in organisations can lead in continuous errors, poor Quality Management and poor morale. It increases mistrust between management and workers, when staff can see that personnel issues are not dealt with. It also dilutes enthusiasm and dedication in the work place, 'lead by example' is not evident if management takes a hiding position from problems.

04. Using Visuals

Dr. Catherine-Ann O'Connell

Department of Applied Social Science & Centre for Pedagogical Innovation & Development (CPID)

Title of Active Learning Strategy

Using Visuals for student engagement: The wonderful world of babies.

Summary of Teaching & Learning Context

The module is 'The Psychology of Child Development in Early Years'. It is taught in Year 1 of the BA Honours in Early Childhood Education and Care Programme.

Rationale: The students are asked to bring in a photo of themselves as a baby. The photos are placed on a table and students can move about and see them. Each photo does not identify who the student is. We try to guess who each person is from the baby photograph.

This is a lovely icebreaker, where the class can get to know each other. It also is a way of exploring the theory through the lens of personal experience. Furthermore, it encourages students to make real life links with the theory of child development, which helps them see the relevance of the module.

Is the activity part of an assessment process? It informs an aspect of their Reflective journal where they are asked to reflect on what has shaped the person they are today, discussing the relevance of nature/nurture through the lens of the various psychological perspectives.

Implementing the Strategy

I ask students to input a photo of themselves before the age of 1 into a shared PowerPoint on Teams. They do not identify who they are. I then share the presentation with people-trying to see if they could recognise each other.

I ask each student when they learned to walk, talk and recognise themselves in a mirror. This conversation is then used as a springboard to discuss how children develop through various physical, emotional and cognitive domains.

Also, how each of us reach developmental milestones at various times so it leads on to a discussion about holistic development.

This also leads to a discussion which articulates the notion of the child developing in context, how social, cultural and environmental factors impact on children's development.

I also share a picture of the famous Albert – from the little Albert experiment – I use this to explore to theme of ethical research in Psychology.

There is also a fun element to this – I share a picture of myself as a baby as well as some well-known faces. You might recognise a baby Trump!

Observations/Reflections

I think it encourages students to see the relevance of the module and to think about how they can bring their own experience to the learning in this module.

The student reaction is positive – it is a fun activity, as well as building a sense of community among the class. It also involves them in their learning and highlights to them the importance of co-constructing of knowledge.

This year I had to move this activity online – it does work better in person – but the online format worked well.

Advice for overcoming some of the challenges: using Teams to share the document that the students can edit.



05. Interactive Electrical Circuit

Seán Conway

Department - Mechanical and Automobile Engineering

Title of Active Learning Strategy

Interactive Electrical Circuit Assessment.

Summary of Teaching and Learning Context

Subject: Vehicle Electrical System.

Class size is 8-16, however this activity is for individual use.

Motor Apprenticeship Programme Phase 4.

Implementing the strategy

I identified certain students having difficulty understanding a particular type of exam question, which involved diagnosing an electrical fault in an automotive electrical circuit diagram. The student is given an electrical circuit on paper accompanied by a table of voltage readings. It does not form part of the assessment as the end of term exam counts for 100% of their assessment. However, it could be used as part of an assessment.

What I had discovered was the students seemed to have no issue diagnosing a fault in a real life situation but once the question was put on paper they had trouble grasping what was going on in the circuit.

My solution was to create a virtual electrical circuit based on the paper exam question but make it interactive so it mimicked the tests the student would carry out in a real-life situation.

I created a virtual circuit using Adobe Captivate Software (see diagram), rather than supplying a table of voltage measurements at different points in the circuit as in the paper exam. I created virtual test points on the circuit. The student then uses the mouse cursor of their computer to simulate the positive test probe of their Digital Multimeter and by clicking on the test points; this would give them the voltage reading at that particular point on the DMM.

Once I had completed the virtual circuit, I then created an intro video using a video editing software called Wondershare Filmora.

Observations/Reflections

Student engagement was very positive, not only because it made it easier to understand what was going on in the circuit, but because they could complete the exercise on their PC or mobile phone it added an air of novelty for the student and they seemed to enjoy using it.

The only obstacle I found was the considerable time involved in creating such an exercise from scratch, however it was my first time using the software.

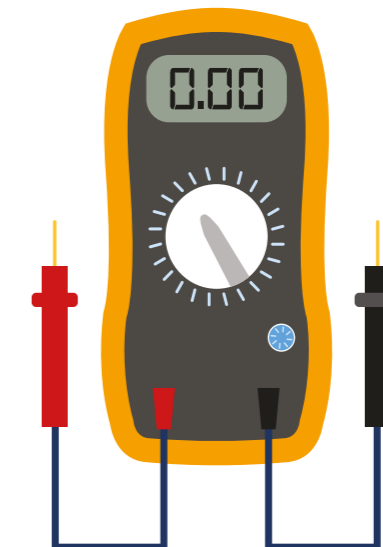
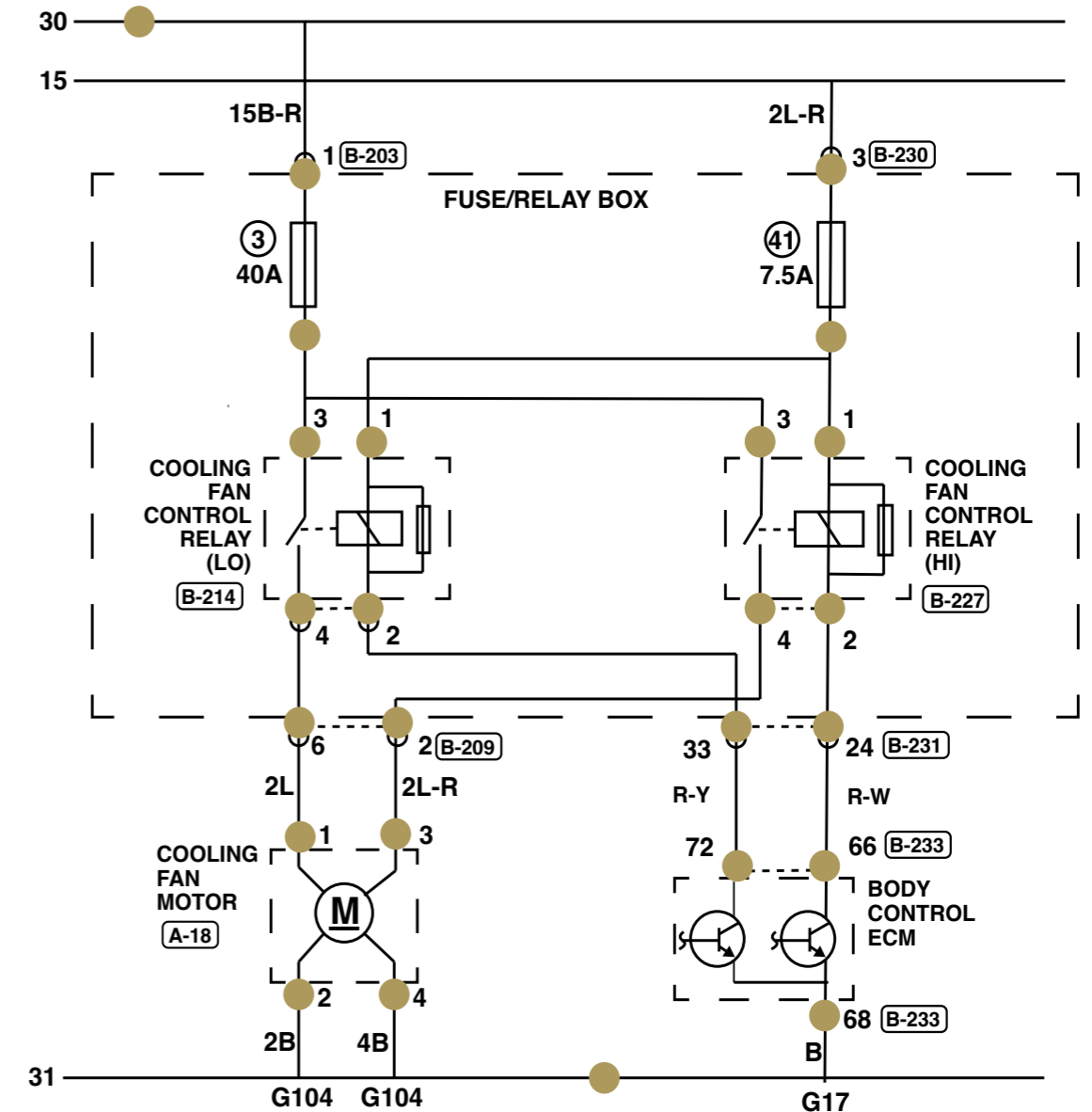
Resources

<https://www.adobe.com/ie/products/captivate.html>

https://filmora.wondershare.net/filmora-video-editor.html?gclid=CjwKCAjw8-78BRA0EiwAFUw8LK2KvZEzcsWUcAj20OzhZiw0NEYN-dZr_h1PmalUM9BGwULah7OjhoCCtEQAvD_BwE

See Attached Video

https://youtu.be/UMg3UwEqR_8



06. Using Explainer Videos

Dr. Matt Cannon

Department of Applied Social Science

Title of Active Learning Strategy

Using Explainer Videos as an enhanced learning activity.

Summary of Teaching & Learning Context

The assessment is part of an exercise for a HRM & Diversity and also a Contemporary Management module as part of the MA in Social Care Management in Limerick Institute of Technology. This is a taught programme that runs part-time over two years and is comprised of students who are currently working in Social Care and want to upgrade their degree to an MA.

The assessment was designed to provide a practical alternative to the traditional essay and to challenge the students with an activity which had practical relevance for working with new technologies while explaining complex concepts.

Implementing the Strategy

The intended consequence of this approach is that the students begin to move beyond being able to repeat the material, but instead actively begin to analyse the subject they are working on while also learning to work in a new medium. The use of online animation tools to develop 'Explainer' videos in a range of subjects (Human Resource Management, Diversity and Contemporary Management) is an example of this approach. The animation exercise started as a workshop with Doras Luimni to address rumours / myths around migration. The idea grew out of a project between 10 European cities as part of the Intercultural Cities network. In Limerick we came up with the idea of using online videos / explainers to counter misinformation on the topic of migration.

In order to run the workshop I divide the class into groups (either selected to promote mixing or self-selected based on the previous experience of the group). The initial session is focused on brainstorming topics and ideas for an 'explainer'. This is followed by a workshop session where we work together in a computer lab (or online) to give the students the basic skills needed to carry out the animation. This normally takes about an hour before they begin to get a sense of using the tools (which are similar to packages they may be more familiar with – such as Microsoft Word / Powerpoint). Once that is finished the students work in their own time to complete the project as part of their assessment. Once all of the assignments are completed we hold a 'viewing session' with the group so they can see one another's work, and as a bit of levity offer a few 'awards' selected by the class for the best video as selected by their peers.

Your Observations/Reflections

Prior to using this approach I had taken over the MA in Social Care Management course at Limerick Institute of Technology. The course was originally heavily focused on essays as an assessment for understanding the impact of regulation. While this was a useful base, I felt the repetition of essays prevented students from engaging with the material. Furthermore, the student population had changed significantly with over 60% of the students coming from non-EU countries – many of whom had English as a second language. The essay was unfairly favouring non-English speakers in a subject that should be accessible to all students. The 'animation' assignment was adapted in order to get students to approach the topic through a different medium.

This approach was rewarding in that it was not only able to promote more participation from students who would normally not do well with an essay, but it also provided some useful content for classroom discussions. Based on my experience the best and most innovative assessments are ones that engage students in a process of learning and understanding while also addressing the learning outcomes on which the module is based.

Recommended Resources

Some online animation web-sites:

www.moovly.com

www.powtoons.com

Associated Visual



07. Using Webwork Platform

Patrick Browne

Department: Electrical & Electronic Engineering

Title of Active Learning Strategy

Using WebWork Platform for Student Engagement & Continuous Assessment in Mathematics

Summary of Teaching & Learning Context

As part of my mathematics teaching, I am conducting continuous assessment via WebWork - <http://www.webwork.maa.org/getwebwork.html>

This active learning method was targeted at groups of approximately forty students in their third year of study. Although it should be noted that the system is scalable to many hundreds of students should it be needed.

Implementing the Strategy

I had experienced this learning platform in previous employments at NUIG and UL, and also from speaking to colleagues from international institutes. Moreover, this is an internationally recognised piece of software in mathematics. The WebWork platform allows students to attempt mathematical problems that are individualised and taken from a pool or well-known texts in the area of study. The software is free and open source, easy to use and displays well on both large and small screens.

The WebWork system is currently a key part of the students CA grade, with instantaneous feedback and transparency for the student.

I wish to thank the IT helpdesk for helping me implement this software. I contacted them, and within hours I had full control of a virtual machine running WebWork. From there I populated the software with student lists and added questions for CAs along with deadlines. The addition of questions is akin to shopping, you simply open the library and pick and choose the questions you want.

Your Observations/Reflections

I would advise newcomers to set the software up and play with it a few weeks prior to get the feel for the potential issues, such as certain questions using feet and not metres and alter a student's grade if and when issues arise.

I conducted a simple Google poll asking for feedback. The vast majority enjoyed the experience of being able to try a question many times, and instantly knowing if their attempt was correct or not. They also enjoyed seeing how the software handled symbolic algebra, by seeing two different forms of the same answer being graded correctly.

The main obstacle I have found is that students often mistake the WebWork log in credentials with their campus ones. Also it can take a week or two for someone less experienced with typing on a computer to adjust. Many if not all obstacles are quickly overcome with an hour or two of hands on/virtual training.

Sample of active learning strategy

A sample from a course on probability theory (this is the instructor view, students do not see the correct answer option until the deadline expires).



08. Blind Dates With Journals

Mairead Dennehy

Department of Applied Science

Title of Active Learning Strategy

Going on a blind date with a journal paper!

(Gaining familiarity and confidence in reading scientific journal papers)

Summary of Teaching & Learning Context

The aim of this exercise was to show students that the topics they are learning about are relevant and utilised in a wide range of medical technology applications and widely referred to in academic journal articles.

A second aim of this exercise was to direct the students in how to get comfortable with reading and understanding journal papers.

This activity was not formally assessed as the purpose was to increase the students confidence in approaching scientific journal papers and identifying the application of specific topics covered in the lectures.

Implementing the Strategy

The task was carried out in one 2Hr lab session on St. Valentine's day 2020, inspired by a social media post from an American bookshop about "going on a blind date with a book".

As a group the "How to read and understand a scientific article" instruction set by Dr. Jennifer Raff was read and discussed.

The students then chose a scientific paper to read based a brief description attached to the front of the paper.

The papers were printed and presented laid out across multiple tables so that they students could read the descriptions and then choose the paper to read. There was an excess of papers so students all had a choice.

Multiple copies of the same paper were also available and students were encouraged to work in groups if they chose the same paper.

The students were given approx. 50 minutes to read the paper, get familiar with what the paper was about and to formulate how they would describe the paper to their peers "introduce the blind date to their friends".

Your Observations/Reflections

Student engagement was excellent. The students enjoyed and appreciated the freedom to choose the paper they were to read and during the task, there was utmost silence and concentration.

Students confidently explained to their peers what the purpose of the journal papers was and how module topics were mentioned in their paper during the discussion session.

As students were leaving, I noticed they were swapping papers and picking up the extra papers to read themselves at home. This strategy of a "blind date with a journal paper" could be implemented any time of the year... not just Valentines day!

The tips for reading a journal paper as well as reading the papers were carried out in the same 2 hr session. In future, I would read and discuss the tips in a separate session so more time could be devoted to discussing the journal papers content.

Recommended Resources

How to read and understand a scientific article by Dr. Jennifer Raff.

This article presents an excellent and well explained method for reading scientific papers. It is laid out in a way that is very tangible for novice scientists to understand and implement.

PDF can be downloaded here: <https://violentmetaphors.com/2013/08/25/how-to-read-and-understand-a-scientific-paper-2/>



The idea came from the "Go on a blind date with a book" concept that was shared on social media by Kramer Books, a Washington DC based bookshop, for Valentines day 2020.

09. Climates of Care

Dr. Catherine-Ann O'Connell, Dr Michael F. Ryan, Dr. Martin Fitzgerald, Dr. Sinead McMahon, Dr. Catherine Corcoran, Ashling Sheehan-Boyle, Emma Ahearne, Paul Keating, Dr. Bridget Kirwan, & Justine O'Brien
Department of Applied Social Science

Title of Active Learning Strategy

Enhancing student learning within a 'climate of care' during emergency and remote teaching.

Summary of Teaching & Learning Context

We are a group of educators who teach on the Social Care and Early Childhood Education and Care programmes on the Thurles campus. We believe in actively engaging our students and modelling care in all our interactions with them. We also value the importance of working together as a team and supporting each other in our teaching and learning. It is important that the students feel cared for, especially in these physically disconnected times. We feel that using a variety of methods of engagement, as well as encouraging the students own support for one another will ensure that they do feel 'cared for' in the online environment.

How as lecturers we can promote engagement in an online environment

Creating ground rules in each class and referring to them regularly if needed. Continue to model what we want/expect to see-ensuring good posture, 'eye contact' full engagement, active listening, paying extra attention to facial expression and tone of voice. Asking people to not 'double screen'-i.e., not to have phone out of view of camera and to treat the class and ourselves with the same respect that they would if we were in person.

Always making connections between each other, linking points, comparing and noting similarities and differences. Taking time at beginning of each session to recap on our previous one and to see if there are any questions. Constant use of OARS-Open Questions, Affirmations, Reflections and Summaries.

Trying to be conversational in tone-praising students for their questions, contributions, making connections between different responses, using their names as much as possible thereby creating positive communication climates. Alternate between allowing 'free answering', 'name calling for answers' and a round where everyone has to answer. When sharing documents/slides -sometimes calling on a student to read out a bullet point -this keeps them alert and is also a break from the lecturer's voice.

Create a real reflection space at the end of the session and give students a chance to respond in chat or verbally to the content and the cognitive/emotional/academic impact of the class on their learning. Alternate frequently between methods. Using some power point but never for more than 5 minutes at a time without going back to discussion/interaction. Also using podcasts/breakout rooms/summarising articles and presenting back to the class.

Ten Top Technology Tips for Online Engagement

If possible, log in to class a few minutes early and chat to students as you log on, greeting them by name, asking everyone to turn on cameras, including 'checking in' on the people who may have cameras off in a caring way.

Welcoming people warmly gives students the message: 'You are wanted, seen and welcomed and your presence is important to me'. Students respond well to this, and it impacts on future behaviour and engagement.

Using breakout rooms is vitally important to student engagement.

Keeping breakout rooms limited to a max of 3/4 and remind students to ensure that each voice is heard in the breakout rooms.

Sometimes use report backs, but not always, as students having the conversation in itself is enough.

Students can also 'call' us into their breakout rooms. This is a good way for us to connect with students in a small group and help guide the discussion/answer questions.

Breakout rooms allow time for sense making, building connections with content and each other, time to ponder, wonder, collaborate together.

Use the chat function for check-in and feedback. Encouraging students to use the chat function throughout sessions and review it to capture their inputs.

The chat function conversation can be saved and shared by posting to Moodle.

Use the reaction function to get a sense of the class and check for engagement/feedback on understanding.

Implementing the Strategy

Through team collaboration we created a resource to inform our online engagement. Also having regular team meetings as well as informal gatherings over virtual coffee and cake. Our team meet for a 'caring coffee' every Friday at lunchtime.

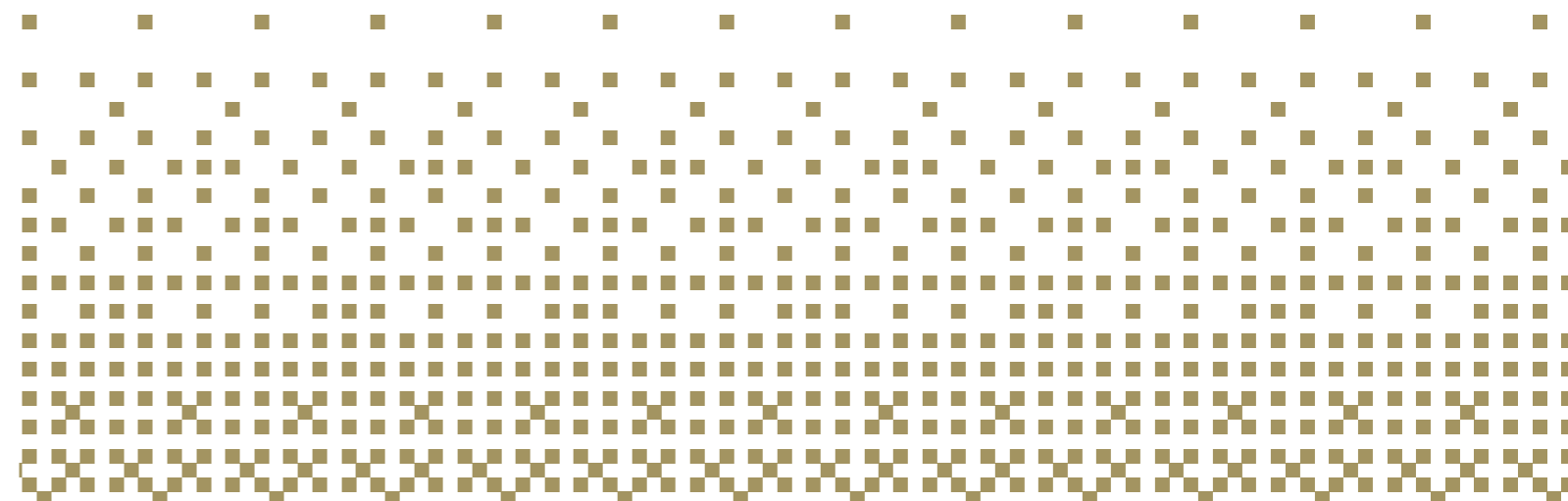
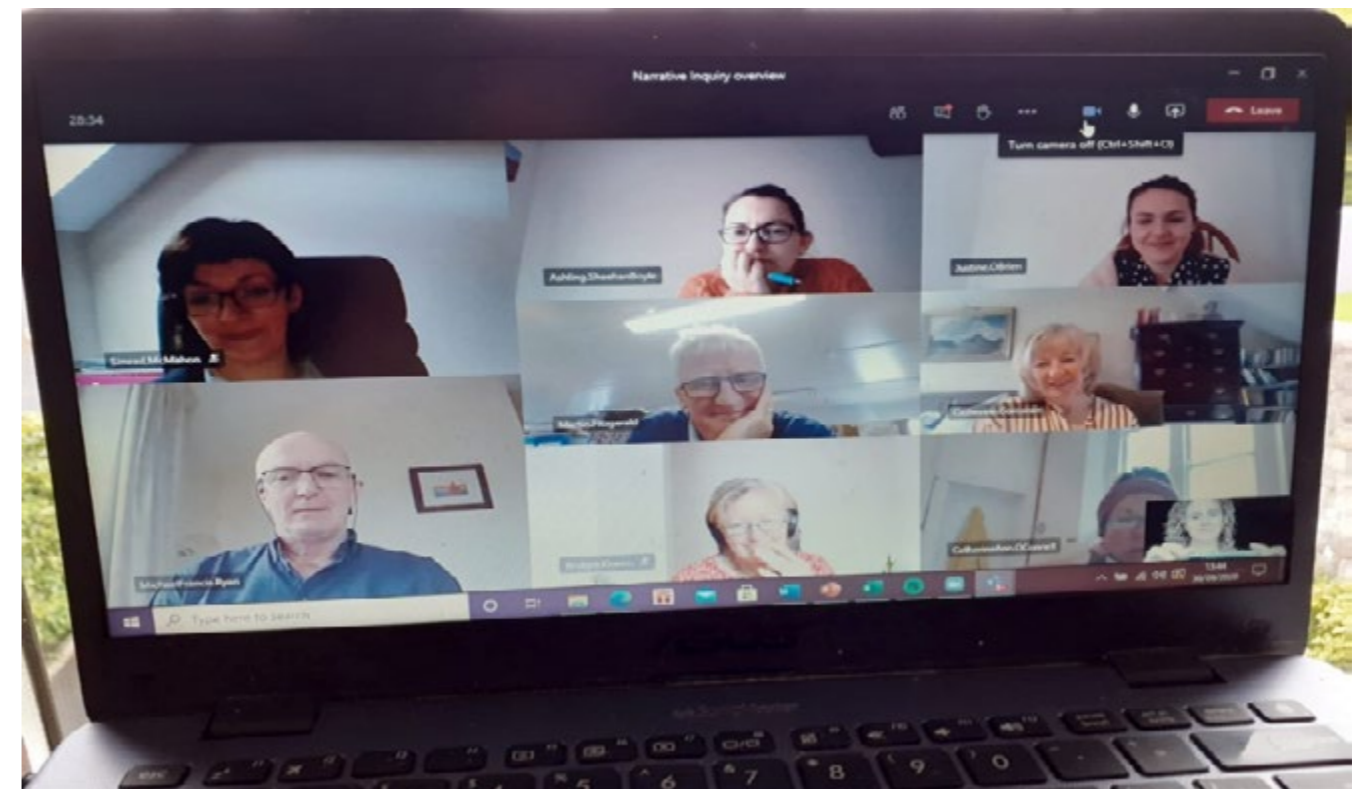
Observations/Reflections

The overall impact on student engagement has been significant. In a recent survey carried out by the ECEC and Social Care Programme Leaders in Thurles, 94% of the respondents from the 1st year Social Care class have said that they feel comfortable in the class and with their classmates. 100% of the first year Early Years students were satisfied with the support they received.

All respondents noted that they feel that they have made connections and feel their confidence in their ability is growing. The students referred to the methods outlined above as supporting their engagement, in particular the use of the breakout rooms. One student said; 'the clarity of instructions by all lecturers is impressive'. Many respondents felt there was not anything else lecturers could do to support the students, which is a great achievement considering the current emergency and remote teaching environment.

Associated Visual

The Thurles team (below) in action-sharing a virtual coffee and nurturing our collaborative and caring team approach.



10. Site Visits

Dr. Sinead McMahon

Department: Applied Social Sciences

Title of Active Learning Strategy

Site Visits: *The Role of the Workhouse in Shaping Irish Social Services.*

Summary of Teaching & Learning Context

Context: The Module where I have used this strategy is Social Policy Year 2 with a group of about 25 students.

Rationale: Because social policy can be a heavy theoretical subject with lots of new jargon and readings, this learning strategy aims to get students out of the classroom to make social policy 'real'. The aim is to create opportunities for students to connect the past and the present.



Brief Description: Visits to three local historical sites including: Thurles Workhouse, Thurles Museum as well as the local library to view records from Thurles Workhouse. After the visit students prepare a short reflection on connections they can make between the Workhouse of the past and any examples from present day social welfare provision/services.

It is not linked to an assessment.

Implementing the Strategy

Organising the visits: This takes the most time trying to organise times that work for us and them.

Organise the tutorial guidance sheet: you need to prepare the students for the visit. I do this using a guidance sheet that gives the details and times of the visit; outlines the learning aims of the visit; provides three question prompts to help them focus during the visit; asks them to prepare questions to ask on the day; lists the small groups they are to work in; gives details of the outcome they must work on after the visit, complete reflections on connections with past and present. I also provide two readings in advance that connect to the visit and the past/present connections.

Your Observations/Reflections

Student Engagement & Reaction: Students love to engage with stories about other peoples' lives and history; they are happy to be outside the classroom too! They are shocked to hear about conditions in the Workhouse and are fascinated to learn about the continued role of the Workhouse as it changed into other organisational forms. Students are energised to take on the reflection work they need to do to connect the past with more recent examples of institutional forms of care and social welfare provision.

Challenges experienced: There are always logistical challenges with doing visits/field trips. Luckily, we have these facilities locally so there are no costs in terms of bus hire. There are challenges with dealing with student absence on the day.

If there are student absences, you need to have a Plan B. You need to be prepared to rearrange the small groups at short notice. I make sure to inform students of the importance of attending and the implications their absence has for me, their group as well as the people we are visiting with. I make sure they know that anyone absent is set another similar piece of work.

11. Games Based Learning

Paul Keating

Department of Digital Art & Design

Title of Active Learning Strategy

Games Based Learning (GBL) *Game Making as Experiential Learning.*

Summary of Teaching & Learning Context

This particular activity can be used to introduce groups to complex social economic or political issues such as homelessness, climate change, geo conflict, global trade etc. It is best undertaken at an introductory stage, perhaps in the second semester of first year and can stimulate points for discussion and analysis later in a course. While this strategy is most commonly used in Business and Humanities it can also be used in Engineering, Environmental Management, Computer Science, Art and Games design.

GBL is an experiential learning process which encourages students to work in teams. While the primary learning relates to the subject of the game, during the game making process students also learn creativity, logic, strategic thinking, emotional engagement and teamwork etc.

The completed game can be assessed as an assignment with accompanying critical reflection.

Implementing the Strategy

There are a number of steps which need to be taken in order to guide a group through this learning process.

1. The lecturer will need to define the broad area to be addressed. –For example, The impact of Climate Change on Farm Families in Africa. Food Security and Supply Chains in Ireland, The Transition to Third level Education, etc...
2. Students break into groups of 3-5, do some preliminary research and decide on a particular context to inform their game. For Example, rather than focus on all food supply chains they could concentrate on the export of beef, or supermarket supply chains or local food security. They may explore the plight of the Massai in East Africa, Mixed farming in highland Ethiopia, the more specific the context the better to begin. Each group decide on their own specific area and continue to do their research on the personal stories, statistics, science and challenges faced by the people at the centre of their game.

3. Once the groups are familiar with the issues of concern, they create objectives for their game.

- What is the key learning they want the game to provoke?
- What are the feelings they want the game to evoke in players?
- What are the actions they want the game to elicit?

4. The most straightforward games design process is referred to as 'reskinning a game'. This involves taking a straightforward game like, snakes and ladders, top trumps, monopoly, etc and changing it beyond recognition.

For Example

- Change the story to reflect your scenario.
- Change the pieces to characters with personalities.
- Change, or introduce resources and how they are allocated.
- Change the positive and negative events in the game to reflect misfortune and opportunity related to your scenario.
- Change the turn taking mechanism...
- Change the layout, from a square to a circle, a checkerboard to a spiral ora map.
- Change the scale of the game from a table top to a patio size, to a football pitch or around the campus.
- Introduce dynamics which evoke emotion, rules which favour some players over others, split up families, change some rules half way through etc..
- If a team is going to reskin a particular game make sure they have played it together prior to beginning the redesign. It is important to have lots of varied game making material to stimulate imagination, large and small cards, markers, dice, counters, etc...

Your Observations/Reflections

This process takes time and works best if it is given a couple of hours a week over 4-5 weeks. Try to mix the skills in a team, have a gamer in each team, a drawer, a researcher, a creative thinker.

Character Cards



Recommended Resources

https://www.youth.ie/documents/games-in-youth-work-handbook/?utm_source=Stay+in+touch+with+NYCI&utm_campaign=383a85647c-Power+and+Youth%3A+One+World+Week+resource_COPY_01&utm_medium=email&utm_term=0_c5e3fd8386-383a85647c-

Playing a Prototype



12. Environmental Action

Kevin Healion

Department of Applied Science

Title of Active Learning Strategy

Environmental Action on the TUS Thurles campus.

Summary of Teaching & Learning Context

This active learning strategy is part of the environmental programmes that have been offered on the Thurles campus since autumn 2008. The current Level 8 programme title is BSc (Hons) in Environmental Science and Climate (LC408), within the Department of Applied Science.

Second year students undertake an Environmental Action assignment worth 26% of a 10 credit module titled Environmental Management Systems. Class sizes are typically 15-20. The assignment is designed to actively engage students in the module learning outcome of 'Contribute to improving the environmental performance of an organisation through the implementation of an Environmental Management System (EMS)'. It is linked with the involvement of TUS Thurles and Clonmel in the An Taisce Green-Campus programme (a follow-on to Green Schools at primary and second-level) and with the student Environmental Society. These linkages bring a broader perspective, a focus on action and an added incentive for engagement.

Implementing the Strategy

The assignment runs over one semester and involves students in the following:

- Participating in collaborative tasks as the whole class or in smaller groups.
- Contributing to an online discussion forum on Moodle regarding work progress.
- Maintaining an individual online diary using the Wiki feature in Moodle.
- Writing an individual report summarising their work and reflecting on the process and outcomes.

The collaborative tasks vary from year to year depending on the needs of the Green-Campus effort at the time and on the interests of the students. Past examples include: actions to reduce paper usage, survey of electricity consumption in computer labs, car-pooling pilot project, feasibility study of rainwater harvesting, proposal of biodiversity mitigation measures for campus playing pitch construction, waste audit, litter survey, creation of signage and support to canteen users on a

new waste separation area, attitudes and awareness surveys, student engagement activities, organisation of Green Week events and participation in Green-Campus committee meetings.

Your Observations/Reflections

The strategy has successfully engaged students every year. Reactions have been positive, with students enjoying the real-world application of knowledge and skills and obtaining satisfaction from contributing to improvements in TUS's environmental performance. Students reported that the assignment allowed them to focus on an environmental issue and carry out group-based action to tackle it. Linkages with seven other modules were identified (Guest et al., 2015). The key challenge each year is in scoping the collaborative work to ensure it is achievable and meaningful. Involving students in defining the scope helps address this issue.

Recommended Resources

- Green-Campus Ireland website: <https://www.greencampusireland.org/>
- TUS Green-Campus Instagram: <https://www.instagram.com/tustipperarygreencampus/>
- TUS Green-Campus Facebook page: <https://www.facebook.com/TUSTipperaryGreenCampus>
- TUS Green-Campus Twitter/X: <https://twitter.com/TUSGreenCampus>

Associated Visual



Students making signage for a new waste separation area in the TUS Thurles canteen.

Reference

Guest, C., Healion, K., Minjon, K. and Russell, R. (2015) Linking Academic Work with Environmental Action on Campus - Experiences From TUS Thurles and Clonmel - a photographic tour and student perspective. Presentation at the Shannon Consortium's Conversations in the Consortium seminar, TUS Thurles, 25th March 2015.

13. Escape Box for Student Engagement

Pamela O'Brien

Department of Information Technology

Title of Active Learning Strategy

Using an Escape Box for student engagement.

Summary of Teaching & Learning Context

Escape rooms are a relatively new phenomena which involve teams of people working together to break out of a 'locked' physical room. Teams work together to solve puzzles which will help them to 'break out' of the room subject to a specific time constraint. I have used an 'escape box' with my students in a variety of contexts; including with incoming first years as an ice breaker activity, during induction and also as a team dynamics exercise with third year students.

The escape box activity can be used as part of an assessment process and it is suitable for any subject domain. Puzzle clues can be tailored to any subject. A reasonably large group can be facilitated as the larger group can be broken into teams of 3 to 4.

Implementing the Strategy

To implement the activity it is useful to have a container that is lockable and a variety of locks. You can buy kits online such as the BreakoutEdu kit, but I have created my own escape box, which consists of a lockable toolbox and a variety of locks including numeric, alphabetic and directional locks. The majority of the materials were purchased in hardware shops. The escape box was set up with a total of eight locks and teams were given a set of clues which would help them to unlock each of the locks in a specified timeframe. The team to solve all of the clues first were deemed the winners and were rewarded (with chocolate!).

Your Observations/Reflections

Following use of the activity a number of times, I found that it works well with students collaborating to solve the clues and open the locks. The level of engagement from students is generally very high. It is interesting to observe the positive group dynamics brought on by some competition coupled with a time constraint.

On reviewing the activity, some changes have been made to ensure the smooth running of the activity such as creating tickets to keep track of who had solved clues and which clues had been successfully solved. Puzzle clues have also been reviewed to ensure that each of the participants could find something that they were comfortable undertaking.



Any Recommended Resources

BreakOutEdu - is an open source project incorporating the team building and problem solving aspects of escape rooms for use in the classroom. Find out more at <https://www.breakoutedu.com/>

SchoolBreak - is an EU funded Erasmus+ project which aims to explore the possibilities of school students learning through playing and designing escape room games. Find out more at <http://www.school-break.eu/>

14. Work Based Role Plays

Emma Aherne

Department of Applied Social Science

Title of Active Learning Strategy

Use of Work Based Role-Plays for developing Assertiveness Skills.

Summary of Teaching & Learning Context

I teach on the Personal Development Module of Assertiveness for Social Care Work (*BA Honours Social Care Work -Thurles Campus*), in which there are typically 20 students. As this is a 4th year module, I want to make the learning practical and work based. I developed two case studies, including observer roles. One case study was based on a case conference and one was on a staff meeting. I gave each person a name, a title and outlined their objective or point of view for the meetings.

Implementing the Strategy

I reflect on how the class may react to the role play, collectively and as individuals. I considered how I would introduce them and how much information to give the students. I considered how to set up the room and how to ensure the role play was as realistic as possible.

There were a number of aims to this exercise:

- To familiarise the students with real practice scenarios.
- Engaging students in personal reflection.
- Using peer observation as a learning opportunity.
- Gaining feedback and support from me as the overall 'holder' and module tutor.

Many students have expressed that while they may feel assertive one to one, the challenges of this are accentuated in group or team settings. They had requested classroom activities that gave them the opportunity to develop these skills.

Your Observations/Reflections

One 'in-action' reflection that emerged from these activities was that the students found it much easier to speak and act assertively when they were in the 'advocating, supportive' role for the 'other', whereas in the context of the 1st role play they were acting as a Social Care Worker representing the needs of their client (Schon, 1991). However, in the Staff Meeting Role Play, I had outlined a number of agenda items that spoke to the Worker's Rights and Needs where the students struggled substantially more in terms of assertive communication. This outcome in my reflection with the students, mirrors challenges within the Social Care Sector as whole. I used this opportunity to explore the reasons for this, and what this means for them as Practitioners moving forward.

If I was to do this exercise again, I feel I would like to have given the class more time to prepare their roles and get into character. I would develop a template for the observers for focused feedback. I would love to explore the power dynamics, societal influences and personal development implications inherent in the striking imbalance of the student's abilities to be assertive for their own needs versus the needs of others. I feel this was the key learning for both myself and the students.

A VISUAL/RESOURCE ASSOCIATED WITH ACTIVITY

Role Play 1: Review of Tenancy Meeting

You are part of a review of tenancy meeting (Mother and 2 children plus 1 child in care) for supported housing in which there has been a number of difficulties in the tenancy with the tenancy as well as benefits. The mother has broken the contract on a number of occasions-people visiting/parties at night, suspected substance misuse. The oldest child (13) is attending the local youth service, and the youngest (6) is attending a FSS. He has regular access with his father, which the FSS facilitates. There is one more child who is in Residential Care (16) on a voluntary basis. She frequently turns up at the house when having absconded from the residential house and friends of hers also turn up unexpectedly. Due to violent behaviour of the 16-year-old, this creates a safety risk for the two other children. The mother has mental health difficulties and is attending an after-care programme in relation to her addiction.

Present at the Meeting:

Mother: Ann-who wants to request a further 6 months at the tenancy

Manager of the Housing Support Agency: Bryan-Who has reservations about the tenancy continuing and has a waiting list for the house.

Key Worker of Ann from the Housing Support Agency: Who has concerns that Ann has been using substances and has reports from the neighbours of shouting and visits from people at the house at late hours. However, she has built up a strong relationship with Ann and Ann has asked her to advocate for her to have an extension on the tenancy.

Social Care Worker from Barnardos: Who feels that this house has provided the 6-year-old (John) with stability and would like the tenancy to continue.

Father of John: Who feels that the house is in a bad area and does not like the stigma of his son being in supported housing and wants the family to either move or for him to be considered for John to live with him.

Social Care Worker from the Residential House: Who feels that the mother needs to put more structure and boundaries in place for the 16-year-old (Olivia) so that regular visitation can be encouraged and Olivia will stop absconding.

Support worker from the Housing Authority: Who states that there are no council houses available and that the Mother, Ann has made herself homeless in the past by leaving a previous tenancy.

Youth Worker from YWI: Who feels that the 13-year olds engagement has been developing and wants to support this, but has concerns about the influence/impact of the 16-year-old and her friends at the house.

Aftercare Worker of Ann: Ann has asked this worker to be present at the meeting as a support person for Ann as Ann feels she has a strong relationship with this person.

Child Protection Social Worker: Involved for the past year since just before the family moved into the current tenancy. The case is currently open under child welfare and the Social Worker is planning to close it and lower its status to family support with Barnardos and other agencies continuing support. They want a plan in place for the 16-year-old due to concerns of contact with the younger children. They would prefer to see the family remain in the supported housing.

Chairperson of the Meeting: Who has no agenda but who needs to facilitate the conversation and ensure that everyone gets to speak and that an action plan is drawn up.

15. The Final Year Project

Dr. Derek McInerney & Dr. James Griffin

Department of Marketing, Enterprise and Digital Communication

Title of Active Learning Strategy

The Final Year Project (FYP) – The Road to Self-Reflection & Self-Assessment (First Steps).

This active learning project is part of a development for an online self-reflective and self-assessment assistive technology-enhanced learning tool, designed for final year project students, within the Faculty of Business and Humanities, TUS.

Summary of Teaching & Learning Context

The inclusion of the final year projects (FYP) in Year 4 has been a significant development in course provision that has altered the learning landscape for all student learners over the past number of years. Overall, there are currently approximately 300 final year students within the faculty undertaking the FYP module and within the module students chose from either a research thesis or a business plan.

The specific requirements of each departments FYP format can vary moderately, depending on the specifics of the course but essentially comprises a 12,000 to 15,000-word document undertaken over the course of two terms. This involves each FYP student producing a document worth one and a half times the module value and requiring them to produce it at nearly three times the credit weighting than they have been used to before now (5 credits vs. 15 credits). There is also a remarkably stark difference in the individual learning assessment here in that the student is now self-directing and self-managing their individual work for the first time on their learning journey.

Rationale

The primary aim of this active learning strategy is therefore to identify best practice, key enablers, and opportunities for the enhancement of self-reflection and self-assessment while supporting and facilitating innovative assessment practices within the Final Year Project module assessment. This is supported by the development of a self-reflective and self-assessment content supported using the MS Notes software system. The overall driving aim of the FYP project is to see an increase in the embeddedness of specific active learning strategies on the fourth year FYP module component of the BBus (Hons) Marketing Management, BA (Hons) Sports Management, BA (Hons) Event Management

and BA (Hons) Tourism Management by designing and utilising an online self-reflective and self-assessment assistive technology enhanced learning tool.

The project foresees the support of students who are using TEL as part of their studies as an imperative development, by providing technical assistance information and guidance in learning in a blended/online environment. As a longer-term aim, within the Faculty of Business and Humanities is the further development of a community of practice to develop a culture of academic collaboration and knowledge sharing of TEL activities.

Falchikov (2005), outlined the changing definitions of assessment and recognised that self-assessment is defined as ‘the involvement of learners in making judgements about their achievements and the outcomes of their learning’ (Boud and Falchikov (1989) and ‘identifying standards and/or criteria to apply to their work and making judgements about the extent to which they have met these criteria and standards’ Boud (1995).

Implementing the Strategy

Specifically, this project requires:

- Roll out of self-assessment tool and paper-based assessment to fourth year FYP students within the Faculty of Business and Humanities (first survey results June 2020).
- Selection of final year students to undertake the use of Microsoft Notes from across the Departments of Marketing and Sport, Leisure and Tourism.
- Provision of weekly assessment support to selected students.
- Design of self-assessment and self-reflection work sheets.
- Provision of initial induction on use of assessment tools.
- Mid study review of student progress.
- Final review of students’ progress.
- Publication and dissemination of projects findings.

Your Observations/Reflections

This project aligns to LIT’s Teaching and Learning Strategy by aligning with the following of its higher-level principles:

- Enhanced engagement with innovation and excellence in Teaching and Learning.
- A learner centred active learning approach (Principle 1).
- Supporting personal development and growth of the whole person (Principle 4).
- Effective assessment practices that promote deeper learning (Principle 5).
- An inclusive, engaging and supportive learning environment (Principle 6).
- Developing and embedding a culture of quality enhancement (Principle 8).

References/Resources

Boud, D. (1995). Enhancing learning through self-assessment. London: Kogan Page.

Boud, D., Falchikov, N. (2006) Aligning assessment with long-term learning. *Assessment & Evaluation in Higher Education*, 31(4), 399–413.

Dunne, E., & Zandstra, R. (2019), Engaging Students in International Education: Rethinking Student Engagement in a Globalised World, *Journal of Studies in International Education*, Vol. 23(1) 3–9.

Falchikov, N. (2005). Improving assessment through student involvement - Practical solutions for aiding learning in higher and further education. RoutledgeFalmer, Oxon, U.K.





16. Care in Online Teaching & Learning

Ashling Sheehan Boyle & Emma Aherne

Departments of Applied Social Sciences & Sport & Early Childhood

Title of Active Learning Strategy

'Creating and cultivating climates of care in online Learning environments during COVID-19.'

This strategy is underpinned by the principles of TUS's Learning, Teaching and Assessment Strategy Principle: 'An inclusive, engaging and supportive learning environment'.

The implementation of this strategy also considers Sieman's (2004) theory of Connectivism, and some of his principles inform and reinforce our approach. This will evolve over time.

Summary of Teaching & Learning Context

- Subject domain, group size, stage of programme (year 1, 2, 3, 4).
- Brief rationale for why you use this learning approach.
- Is the activity part of an assessment process? If so, explain why.

We decided in consultation with the programme team of BA Early Years Education and Care and BA Social Care Work Thurles to create a support programme that would complement the delivery of programme content. The rationale of creating this model was to provide support to students as we transitioned from face to face delivery to online delivery due to Covid-19.

As both programmes have a strong emphasis on care, empowerment and resilience, we felt one of the best ways to nurture this approach was to model some strategies.

As Programme Leads, we were inundated with requests from students for support e.g. IT support, mental and emotional wellbeing, learning support and family challenges. While many of the students welcomed a timetable that provided the stability of a daily routine, for others this created an added complexity to their lives.

The significance and importance of this was particularly pronounced for first years who had limited face to face contact and no previous experience with each other or the Department Team. We were cognisant that time and energy was required to encourage engagement, participation and sustainment in a meaningful way and wanted to work collaboratively to facilitate active learning.

Implementing the Strategy

If you want to provide care you need to receive care, and model care. With this in mind, as a Programme Team, we have set up weekly 'Caring Coffees' for staff as well as regular team meetings. Flowing from this, we carried out a survey of all our students and created an Action Plan from the results. It was encouraging to receive some very positive and honest feedback This allowed us to have the Students' perspectives and insights for how we might respond appropriately.

As a team we ensure to be in constant regular and meaningful communication around student engagement to ensure that no one 'falls through the cracks' and we can create a picture of the 'whole' for each class and each individual. As part of our strategy we also set up an online rota of support sessions for students.

Your Observations/Reflections

We have discovered the importance of keeping strategies simple, for ourselves as Educators and the students. One effective strategy has been to engage the Class reps in establishing a virtual lunch once a week for each class group to establish support and rapport.

As Programme Leaders, we have regular check in meetings/emails with class reps. We have found that this gives the students a sense of being 'held' and that their views are important to us.

We have set up a 'Year Moodle Page' and post regular updates and links for students to access. The entire Programme team were also enrolled on these pages and could sign post students to information.

While time is needed in trying to support students appropriately while balancing our own workloads, the strategy pays off in promoting overall engagement and care of students in the Programmes and creating an effective communication plan.

17. Speakers Corner Events

Dr. Michael Ryan

Centre for Pedagogical Innovation and Development (CPID) & formerly Department of Applied Social Science

Title of Active Learning Strategy

Using 'Speakers Corner Events' to Engage Students.

Summary of Teaching & Learning Context

I teach Sociology modules to Social Care Work students. I think it is important for our students to hear guest speakers from different domains of their professional lives. Our Department has organised many successful day-long professional conferences. These events are excellent learning opportunities for students and faculty members. They also create engagement, inspiration and professional networking opportunities for undergraduate students. Another option (that is less resource intensive), is more regular 'Speaker's Corner' type events.


Speaker's Corner type events can happen over an extended lunchtime period or can be scheduled within an official teaching timetable slot. In Social Care Work, our students have two significant placements with relevant agencies, so we have ready-made networks of speakers who are usually pleased to be invited to speak to our students and represent their own agency or organisation.

During the last semester and my experience of online teaching - I have also realised the potential of technology platforms such as MS Teams or Zoom to enable us to facilitate live screen input from guest speakers to our students (without the logistical challenges of travel time and venues).

Implementing the Strategy

- Choose a relevant Speaker's Corner theme in collaboration with your students.
- If possible, engage students in the identification of potential speakers - asking them to do some research on organisations and on speaker profiles.
- Discuss a time/date/venue.
- Check logistics-timetabling/room booking/clash with assessment submission.
- Invite guest speakers.
- The Speaker's Corner model that I have used usually involves three speakers (each allocated a 15 minute slot - 10mins speaking and 5 for questions & discussion).

- Schedule the event and send out notifications/invites to relevant staff and students in other years.
- Engage a student to introduce speakers.
- Help students formulate some questions that may be worth asking at the event - but also encourage the asking of spontaneous questions on the day.
- You may wish to consider linking the event to a low stakes assessment - whereby students must attend and write up a report on same (if scheduled during a timetabled teaching time).

Agency Speaker	Time-Slot
Foróige (Karina Murray & Serena Orr)	12 - 12.15p.m 
Novas - Homelessness Services (Richard Ryan)	12.20 - 12.35p.m 
Spunout Mental Health (Timmy Hammersley)	12.40 - 12.55p.m 

Sample Schedule for Lunchtime Speaker's Corner Event

Your Observations/Reflections

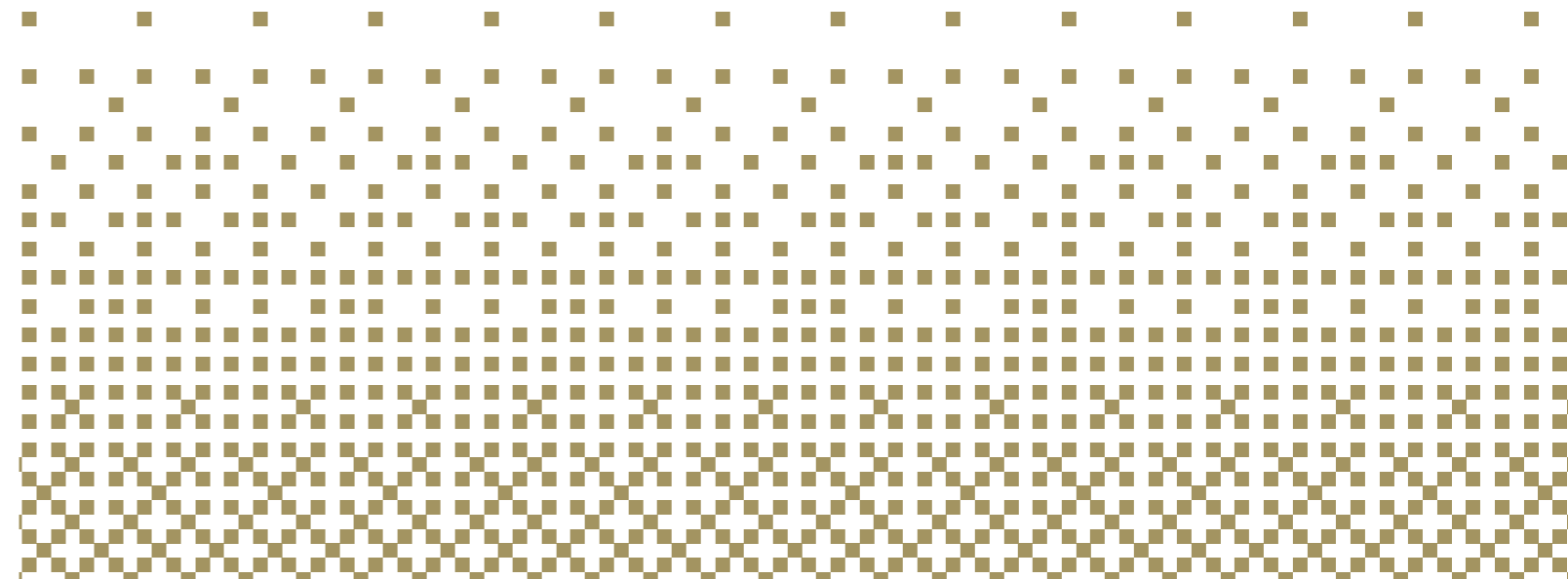
- Students and colleagues report that events such as these generate significant engagement within a disciplinary context.
- Integration of theory and practice is made easier in teaching and learning environments when faculty members and students attend a similar speaker's corner event that is relevant to an area of study.
- The more students become involved in the organising of the event the better the level of engagement.
- Leaving enough time for questions is very important and having a competent/convenor or chair to manage the question and answer session is important (If this is a student - they may benefit from some support in advance regarding the role. Otherwise the module leader may wish to chair).

- The three-speaker model seems to work very well. It creates a 'mini-conference dynamic' that holds student attention and provides the energy for effective stimulation and critical thinking.
- Events like these provide very effective professional networking opportunities and provide students with insights into their professional domain and potential areas of work.
- They are not very time consuming to organise and could also be facilitated through MS Teams or Zoom.

Associated Visual



Department of Applied Social Sciences - Speaker's Corner Event - Jan 31st 2019



REFERENCES

Bean, J. C., (2011). Second Edition. *Engaging Ideas: The Professor's Guide to integrating writing, critical thinking and active learning in the classroom.* Jossey Baas.

Biggs, J.B., (2003). *Teaching for quality learning at university.* Buckingham: Open University Press/Society for Research into Higher Education (Second edition).

Bonwell, CC., Eison, JA., (1991). *Active Learning: Creating Excitement in the Classroom.* Washington, DC: School of Education and Human Development, George Washington University.

Caena, F. and Redecker, C., (2019). Aligning teacher competence frameworks to 21st century challenges: The case for the European Digital Competence Framework for Educators (DIGCOMPEDU), *EUROPEAN JOURNAL OF EDUCATION*, ISSN 0141-8211 (online), 54 (3), 2019, p. 356-369, JRC117352.

Carr, R., Palmer, S., and Hagel, P., (2015). Active learning: the importance of developing a comprehensive measure. *Active Learning in Higher Education* 16, 173-186.

Cavanagh, M., (2011). Students' experiences of active engagement through cooperative learning activities in lectures. *Active Learning in Higher Education* 12(1): 23-33.

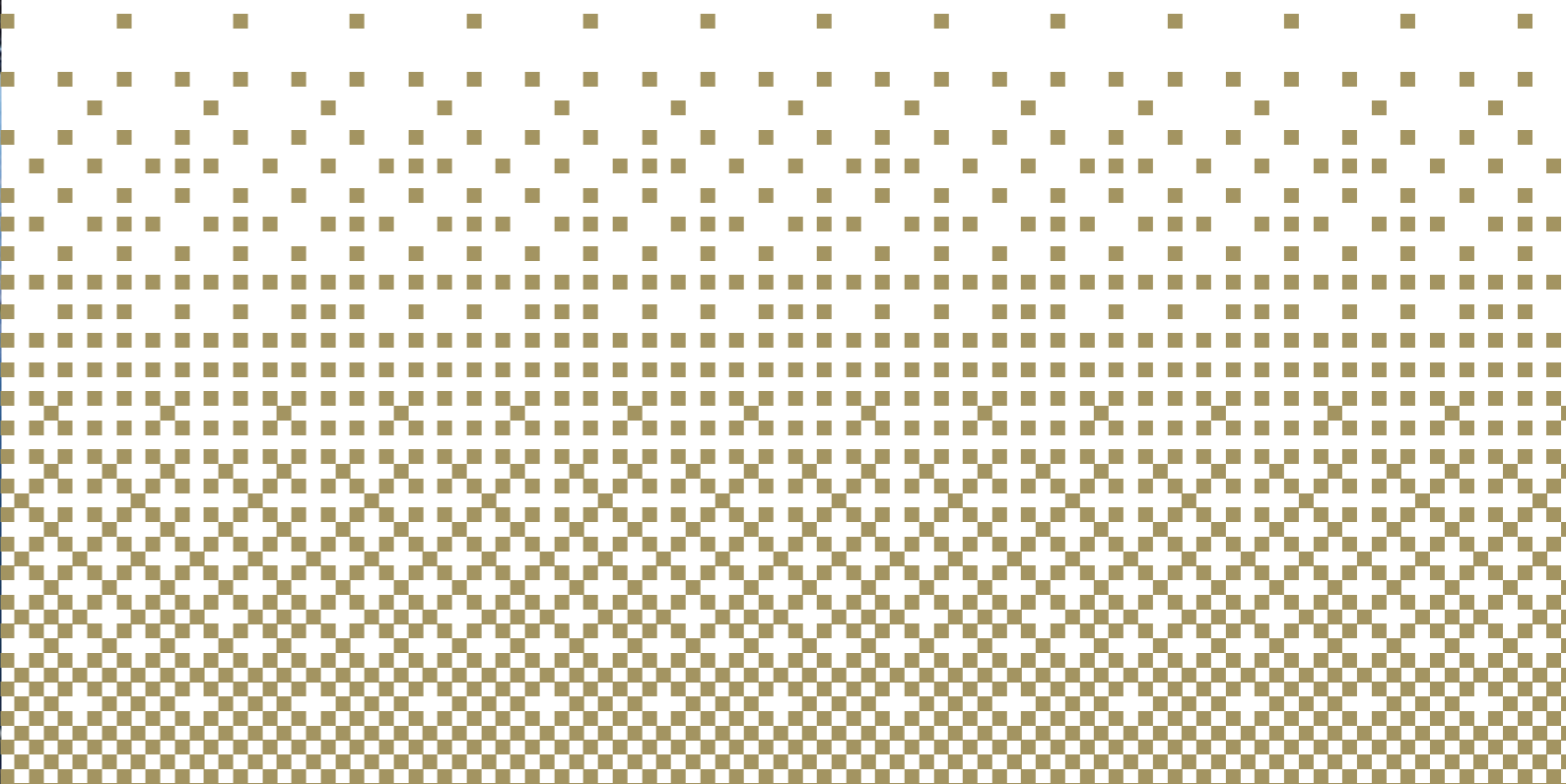
Eison, J., (2010). *Using Active Learning Instructional Strategies To Create Excite and Enhance Learning.* University of South Florida.

Freeman, S., et al, (2014). Active Learning Increases Students' Performance in Science, Engineering, and Mathematics. *Proceedings of the National Academy of Sciences of the United States of America*, 111, 8410-8415. <http://www.pnas.org/content/111/23/8410.full.pdf>

Healey, M., et al., (2013) *Active Learning & Student Engagement: International Perspectives and Practices in Geography in Higher Education.* Routledge.

Homes, H., (2018). Engaging with assessment: Increasing student engagement through continuous assessment. *Journal of Active Learning in Higher Education* 2018, Vol. 19(1) 23-34.

Putting Learning First: TUS Learning, Teaching and Assessment Strategy (2022-2025). https://tus.ie/app/uploads/AcademicServices/Quality/Handbook/VOL3/2_Putting-Learning-First-TUS-Learning-Teaching-and-Assessment-Strategy-2022-2025.pdf



RESOURCES

- Biggs, J., 2020. [online] Available at: <https://www.johnbiggs.com.au/academic/constructive-alignment/>
- Chatfield, T. (2009). The Complete Guide to Wikis, How to Set Up, Use, and Benefit from Wikis for Teachers, Business Professionals, Families, and Friends.
- Coates, H.C., (2006). Student Engagement in Campus-based and Online Education: University Connections. London: Routledge.
- Conole, G., & Fill, K., (2005). A learning design toolkit to create pedagogically effective learning activities. Journal of Interactive Media in Education. 2005(1), p.Art. 9. DOI: <http://doi.org/10.5334/2005-8>
- Gay, G.H.E., & Betts, K., (2020). From discussion forums to eMeetings: Integrating high touch strategies to increase student engagement, academic performance, and retention in large online courses. Online Learning, 24(1), 92-117. <https://doi.org/10.24059/olj.v24i1.1984>
- Guide to Curriculum Design:Enquiry-Based Learning Peter Kahn and Karen O'Rourke http://www.heacademy.ac.uk/resources/detail/id359_guide_to_curriculum_design_ebl
- Konopka, C. L., Adaime, M. B., & Mosele, P. H. (2015). Active Teaching and Learning Methodologies: Some Considerations. Creative Education, 6, 1536-1545. <http://dx.doi.org/10.4236/ce.2015.614154>
- LIT Teaching and Learning Strategy (2018-2023).
- LIT -Technology Enhanced Learning Resources Page -LIT/Moodle.
- Lumpkin, A., Achen, R. M., & Dodd, R. K., (2015). Student perceptions of active learning. College Student Journal, 49(1), 121-133.
- Nielsen L, 2020, Key Points of Active Learning <http://activelearningspace.org/principles/key-points-of-active-learning>
- The Changing Pedagogical Landscape: New ways of Teaching and Learning in Higher Education (2014). Publications Office of the European Union. <http://www.eua.be/activities-services/news/newsitem/2015/11/19/publication-on-the-changing-pedagogical-landscape-new-ways-of-teaching-and-learning-and-their-implications-for-higher-education-policy>
- University of Birmingham Learning and Teaching Strategy (2007): <http://www.as.bham.ac.uk/study/assess/learnandteach.shtml>
- EBL Website (Video CaseStudies) University Of Birmingham: <http://www.ebl.bham.ac.uk/>
- Redmond, P., Heffernan, A., Abawi, L., Brown, A., & Henderson, R. (2018). An online engagement framework for higher education. Online Learning, 22 (1), 183-204.
- Social Sciences (General) -Problem Based Learning Resource Centre (WebCT self enrolment): http://www.weblearn.bham.ac.uk/selfenrol_2008-09/
- Lee, V. S. (Ed.). (2004). Teaching & learning through inquiry: A guidebook for institutions & instructors. Sterling, VA : Stylus.
- Inquiry and Critical Thinking Reflective inquiry. Garrison, D.R. (n.d.). <http://commons.ucalgary.ca/documents/ReflectiveInquiry.pdf>
- Uden, L., & Beaumont, C., (2006). Technology and Problem-Based Learning. London: Information Science Pub.
- Trinity College Dublin–Academic Practice Resource (2020). Multiple Choice Questions For Online Assessment available at: https://www.tcd.ie/CAPSL/Assets/pdf/Covid-19/MCQs%20Final_19_3_20.pdf
- International Journal of Active Learning in Higher Education Sage: <https://uk.sagepub.com/en-gb/eur/journal/active-learning-higher-education>
- Resource Hub - National Forum for the Enhancement of Teaching and Learning in Higher Education <https://www.teachingandlearning.ie/resourcehub/>



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