



**TUS**

Ollscoil Teicneolaíochta na Sionainne:  
Lár Tíre, An tIarthar Láir  
Technological University of the Shannon:  
Midlands Midwest

**COMPENDIUM** OF  
**ACTIVE LEARNING**  
& **ASSESSMENT**  
**FOR STUDENT ENGAGEMENT**

***VOL. 2***



**AUTHOR/EDITOR – DR. MICHAEL F. RYAN**  
**IN COLLABORATION WITH TUS MMW COLLEAGUES**

## Foreword

Dear Colleagues

I am delighted to welcome the publication of the second volume of the TUS Compendium of Active Learning and Assessment for Student Engagement.

The first volume proved to be a valuable resource to both academics in LIT and to the wider Teaching and Learning community in Higher Education. The dissemination of the resource by the National Forum for the Enhancement of Teaching and Learning (through its Resource Hub) generated widespread positive feedback, post its publication by the Higher Education Community in Ireland.

Its publication coincided with the planned integration of both AIT and LIT to form the Technological University of the Shannon: Midlands Midwest, which came into being on the 1st of October 2021.

As a measure of the strength of the work by the respective Teaching and Learning Units of both AIT and LIT, a further compendium was considered and developed to capture the depth and breadth of active learning strategies used throughout the six campuses of TUS to maximise student engagement. It also captures and profiles the range of innovative and diverse assessment methods used by the TUS academic community to engage students and enable the students' demonstration of their learning across a myriad of discipline areas.

It contains a wealth of wisdom, experiences, research, and information on the twin themes of active learning and authentic assessment that I know will be valued by the vibrant community of pedagogical practitioners in TUS. It is a testament too to the culture within TUS of developing and sharing amongst peers' new pedagogical practices for the benefit of all in our teaching and learning community.

This second compendium will form part of the published work of the newly formed Centre for Pedagogical Innovation and Development in TUS. This Centre is the pivotal pillar of TUS to enact and enable its Learning, Teaching and Assessment Strategy. The centre will also publicise pedagogical development and research activities as part of our exciting evolution as a Technological University.

I congratulate all the contributors who have subscribed to this exciting and innovative publication.

Finally, I reserve a special word of thanks and appreciation to Dr Michael F. Ryan for his continued dedication to the cause of enhancing Teaching and Learning for all. His work on this compendium brings further evidence of this commitment.

Professor Vincent Cunnane

**TUS PRESIDENT**

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## Foreword

As the inaugural Vice President for Student Education and Experience in TUS, I am particularly delighted to welcome this publication. It gives testament to and showcases how the learning, teaching and assessment practices implemented by our TUS academic community enshrine student engagement. Noteworthy, is that it is a second volume being published within a year following the successful first edition of the compendium that captures the twin themes of the education philosophy of TUS - active and applied learning and authentic assessment for engaged learning. The compendium gives ample evidence of the implementation of these themes in the case studies presented.

This philosophy underscores the ambition that TUS has for its all its graduates irrespective of their discipline, i.e. to engage its learners through meaningful and relevant programmes of learning and research that are inclusive and relevant to the needs of industry, society, and the environments our graduates will work in, either nationally or internationally.

This second compendium captures the research informed practices of our academic staff and the centrality of the student to their pedagogical practices. The case-studies demonstrate the collaborative and 'engagement ethos' between our academics and students; whereby a tradition of active learning with novel and innovative participation is achieved. The insight, range, and relevance of the pedagogical case studies shared in this compendium are a valuable reference resource for all academic practitioners.

The recently launched Learning, Teaching and Assessment Strategy of TUS – Putting Learning First - celebrates the centrality of the student in the education activities of TUS. It frames the ambition TUS has for its students by developing a talent pipeline in a living, dynamic, caring, and responsive university community. The compendium gives witness and evidence to this centrality of the student in the practitioner reflections captured in this volume.

TUS has now created a Centre for Pedagogical Innovation and Development to frame the wide range of activities that support innovation, creativity, diversity and excellence in learning, teaching, and assessment within the academic community of TUS. The centre supports staff development, scholarship and educational research in learning, teaching, and assessment, including the appropriate use of digital technologies. It promotes the development and dissemination of best practice in learning and teaching in higher education by publications, such as this Compendium.

I want to sincerely thank all the 44 contributors who have submitted and shared their valuable insights and experiences of engaging students through active learning and assessment. The wider support of the National Forum for the Enhancement of Teaching and Learning was vital to the development of the Compendium. Finally, this Compendium, and its predecessor, would not have been realised without the dedication, enthusiasm, and work of the compendium editor and author Dr Michael F. Ryan, who has always been central to framing the development of the Teaching and Learning practices for TUS.

Frances O'Connell

**Vice President Student Education and Experience, TUS**

## Introduction

This TUS Compendium of Active Learning and Assessment for Student Engagement -Volume 2 follows the successful publication and dissemination of The Compendium of Active Learning: Strategies for Student Engagement (Ryan, M.F. 2021). The first compendium contained profiles of over sixty active learning strategies and twenty practitioner examples of active learning in practice.

This Volume 2 edition, develops and expands the focus of the previous volume. Volume 2 includes the twin themes of Active Learning and Innovative Assessment for Student Engagement. This publication is the first official, collaborative TUS publication in Learning, Teaching and Assessment. It contains 44 submissions from academic practitioners across TUS-MMW locations.

In section one, the twenty one submissions on active learning, reflect diverse strategies including: visuals and Infographics, technology enhanced learning, e-tivities, clinical simulations and group-work learning processes.

In section two, there are thirteen submissions on innovative assessment, covering a diverse range of individual and group assessments using different pedagogical approaches.

Section three, includes ten significant theory-practice reflections on a range of scholarly themes relating to active learning and assessment initiatives. Some of these reflect current research questions being explored by academic practitioners.

Overall, this volume continues our commitment to developing and enhancing a TUS Community of Practice in Learning, Teaching and Assessment. Throughout this publication, over forty practitioners share their pedagogical experience, their practitioner knowledge and their craft wisdom in addition to outlining each of the active learning or assessment strategies presented to us. There is also a generous sharing of associated pedagogical resources to enhance practice.

Dr. Michael F. Ryan





## Acknowledgements

The author-editor wishes to acknowledge the invaluable support of both Dr. Brendan Murphy (Head of Department of Quality), and the support of Frances O'Connell, Vice President - Student Education and Experience. Their genuine commitment to the ongoing enhancement of the student experience at TUS and their enthusiasm for this publication are greatly appreciated.

The author would also like to acknowledge the assistance of colleagues Sarah O'Toole (Education Developer) for her insights and to Mark O'Connor (Education Technologist) for his invaluable assistance with technical production and liaison with our graphic designer Jules Hackett. The creativity, professionalism and attention to detail displayed by both Mark and Jules has been inspiring.

The author also wishes to thank all his TUS colleagues who contributed to this collaborative publication. Your commitment to the development of active learning and assessment for student engagement is inspiring. Your commitment to sharing 'the messy swamp of practice' with your peers reflects an enthusiasm for the ongoing development and nurturing of a community of practice in pedagogical innovation and excellence. Collectively, we have created an important publication, that shares learning, teaching and assessment strategies, valuable resources and authentic reflections on the use of active learning and innovative assessment strategies for student engagement.

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

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# INTRODUCTION TO **ACTIVE LEARNING** & **ASSESSMENT** FOR STUDENT ENGAGEMENT

The twin themes of Active Learning and Assessment for student engagement feature prominently in our proposed TUS Strategy for Learning, Teaching and Assessment (2022). Both of these themes feature as key pillars to support our overall approach to Learning, Teaching and Assessment. The extracts below from our draft strategy capture the significance of these pillars.

## Engagement through active and applied learning

'Pedagogies of Engagement' is an umbrella term for an educational process at TUS: MMW where students become vigorously engaged in exploring, assimilating and constructing knowledge. It has at its heart an active learning dynamic, where diverse models of learning motivate students to take responsibility for their own learning. It also enhances knowledge retention and metacognition because of the deeper levels of engagement associated with knowledge construction. Pedagogies of engagement are enabled in TUS: MMW through a variety of interactions: Student to Content, Student to Student, Student to Staff, Student to Industry, Student to Community and Student to Research. They occur along a continuum from individual-based activities to group-based episodes of collaborative engagement, and range from small-scale encounters (pair and share, student presentations) to more extended and sustained active learning strategies such as: Team Based Learning (TBL), Problem Based Learning (PBL), Extended Case-Study Method, and Enquiry Based Learning (EBL). These also incorporate signature pedagogies which enable disciplines to select appropriate learning approaches, including Design Thinking. All of these pedagogies promote the development of advanced cognition, higher order thinking, values development, intrinsic motivation, autonomy, personal mastery, self-responsibility, and psychomotor skills associated with specific disciplinary needs.

Pedagogies of engagement, through active and applied learning, typically embrace: co-constructivist approaches. They engage students at cognitive, psychomotor and affective levels. They are collaborative in nature, and thus embed and enhance learning by engaging students. They lead to the development of higher order thinking and learning through analysis, synthesis and creativity. In addition, pedagogies of engagement enhance the development of interest, attitude, and values relating to learning and where appropriate the development of motor skills to include physical actions, reflexes, interpretive movements, hand-eye coordination and non-discursive communication.

For teaching staff, the facilitation of successful pedagogies for engagement through active and applied learning, require ongoing reflection at all stages of curriculum planning, implementation and evaluation. The University advocates ongoing reflective practice as an embedded component of professional development for teaching staff.

[\(Extract from Draft TUS - Learning, Teaching & Assessment Strategy 2022\)](#)



## Assessment of, for and as learning

Assessment of, for, and as Learning is a key enhancement theme for The National Forum for Teaching and Learning. In TUS: MMW, assessment is a key pillar in supporting student engagement through expanding, exploring and embedding knowledge. Best practice principles of: validity, reliability, practicality, washback on learning, and authenticity underpin the assessment dynamic, which includes formative and summative approaches. As students at TUS: MMW progress through their studies, they experience a range of innovative assessment approaches, which reflect disciplinary needs and professional practice requirements.

Assessment of, for, and as Learning is reflected in the continuum of assessment which extends from verification of learning, to higher level outcomes involving formative feedback for improvement, self-assessment skills, and authentic assessment opportunities where 'real world' tasks and peer-assessment are enabled. Students are also engaged in active dialogue and evaluative judgement focusing on the: aims of assessment, criteria for success, sharing exemplars of excellence and in providing feedback for teaching staff to guide ongoing improvement. TUS: MMW ensures that all assessment processes are quality assured, using best practice principles and procedures. TUS: MMW prioritises 'assessment literacy' and associated skill development for staff at all levels of curriculum design, delivery, and implementation. Best practice in assessment will be enhanced through the following practices. Assessment strategies will be designed to capture the key learning outcomes for the module and the programme. They will help students explore, expand and embed knowledge, by including assessment of, for and as learning to engage students, thus enabling students to self-assess and set goals. Students will be provided with clearly designed assessment briefs and the criteria for success will be shared in advance, for example, through the use of effectively designed rubrics. Assessment strategies will include formative & summative approaches and will be designed to provide feedback and feedforward opportunities for students which will also inform the continued evolution of learning, teaching and assessment approaches.

(Extract from Draft TUS - Learning, Teaching & Assessment Strategy 2022)

### Useful References:

Freeman, S. (2014). Active Learning Increases Students' Performance in Science, Engineering, and Mathematics. *Proceedings of the National Academy of Sciences of the US*. 111, pp. 8410-8415. National Academy of Sciences

Healey, M. (2013). *Active Learning & Student Engagement*. (M. Healey, E. Pawson, & M. Solem, Eds.) London: Routledge.

Homes, N. (2018). [Engaging with assessment: Increasing student engagement through continuous assessment](#). *Journal of Active Learning in Higher Education*, 19(1), 23-24.

Hoque, E. (2017). [Three Domains of Learning: Cognitive, Affective and Psychomotor](#). 2(2), 45-52.

# SECTION one

## Active Learning Strategies For Student Engagement

# 1 Reflections On Active Learning Approaches

Melissa Bergin  
Melissa Bergin - A Student Perspective, TUS Midwest

**Student Engagement** - Active Learning approaches help me to engage more and understand information better. They help me take control of my learning process. I find absorbing information is challenging but using active learning, helps me to gain more knowledge, enjoy the process of learning and remember it after learning.

**Graduate Attributes** - Active Learning helps me develop TUS Graduate Attributes including: 'work readiness and of the whole person' because we will be required to be adaptable and able to continually communicate with different people. We learn a lot of these skills from groupwork, problem solving and presentation skills.

**Critical Thinking** - Active Learning strategies therefore help me expand my critical thinking, teamwork, problem solving and my adaptability. I struggled with these especially during the COVID 19 pandemic and how I experienced remote online learning for a whole year. On returning to campus this year, my lecturers have been using more active learning strategies and these have given me new skills and confidence as a learner.

**Visual and Audio Resources** - Having access to recordings of lectures helps a lot because it helps to refresh my mind on what was covered and helps when doing assignments. Having the mix of power-point presentations, tutorials and videos helped to keep students engaged in class as the change between different methods of teaching kept everyone involved. It was also beneficial for students who learn in different ways. I learn better from hearing and taking notes on the topics.

**Lecturer Support** - Having access to lecturers and more resources to help with assignments is crucial. The face to face support from lecturers, now that we are back on campus and having continuous assessments has been a positive development. This has helped me a lot as exams are difficult for me. Having more continuous assessment has helped me gain more knowledge and also improve my grades.

**Group Work & Assignments** - Doing group assignments and having group discussions helps because it helps to expand on ideas and get new insights into topics

## Innovative assessments strategies that engage:

- Group assignments
- Individual and group presentations
- Doing competency work and not being based around the same thing
- Mind-maps, fish diagram etc to help plan assignments and exams out in short detail using the important parts
- Flashcards
- Having class/group discussions
- Being able to get help from lecturers when stuck or getting them try new learning strategies to help you understand
- Reflective pieces
- Doing quizzes
- Writing out words or phrases you do not understand when working and either asking for help or use the resources provided to you by the college
- Doing out a checklist on assignments/exams due and when completing an assignment have a checklist to check off that each part is completed

Overall, the 2021 Compendium of Active Learning Strategies for Student Engagement set out some really good strategies. Now that we have returned to face to face learning, these active learning strategies will be really helpful to students and teachers. This year the lecturers and staff in TUS have gone over and above to help students adjust to being on campus and help students learn using different active learning strategies from the Compendium.

I found the help and resources I received this year amazing and honestly, they have been so helpful. Having continuous assessment has helped a lot. I had not sat a college level exam since I started TUS two years ago. Many students feel it helps lecturers see how well they can do on assignments instead of exams.

# 2 Infographics & Concept Mapping

Lynn Allen  
Department of: Sport and Health, TUS Midlands

## Summary of Teaching & Learning Context

As part of the Athletic Therapy programme in TUS midlands, our students obtain clinical hands-on experience through practical classes and fundamental theoretical knowledge in lectures. The Athletic Therapy students are required to be competent in the assessment, diagnosis, treatment and implementation of rehabilitation programs for all musculoskeletal injuries. They are also required to understand and apply the principles of Injury Prevention in their practice. Hence, as part of the programme, our 26, Year one students undertake a module in Fitness Injury Prevention. Many different pre-habilitative principles are covered in detail such as flexibility, warm up, recovery, psychological strategies and sport nutrition.

As an educator using the flipped classroom approach to this cohort, I wanted to transfer theoretical knowledge and understanding into a digital format. This allowed the students to showcase their digital skills through the translation of complex concepts into simpler, bitesize, consumer friendly theoretical knowledge in an engaging and interactive format.

Many research journals in the Sport and Exercise Medicine and Allied Healthcare professional domains use infographics to summarise the main key messages of the article, through visual representation of the data, allowing the dissemination of research to all in our society. This is of significant importance in evidence-based practice, as translating evidence into practice poses challenges to both researchers who create and disseminate new scientific evidence and clinicians, educators and students who must interpret and implement new evidence into practice (Welch Bacon et al., 2021).

## Implementing the Strategy

Provide students in small groups a topic, concept or journal article to create digital information in the format of an infographic.

Group size, no larger than 3 students, as one or two students provide the information for inclusion in the infographic, while the other student create the digital text.

Digital apps such as Canva (canva.com) have free sample templates that students can use to create their own infographics.

**Lecturer Support** - Having access to lecturers and more resources to help with assignments is crucial. The face to face support from lecturers, now that we are back on campus and having continuous assessments has been a positive development. This has helped me a lot as exams are difficult for me. Having more continuous assessment has helped me gain more knowledge and also improve my grades.

**Group Work & Assignments** - Doing group assignments and having group discussions helps because it helps to expand on ideas and get new insights into topics knowledge. The wiki format is ideal for sharing and getting feedback from group members. In educational settings wikis can be used to:

## Observations/Reflections

Students found it a novel, engaging and interactive way of presenting theoretical concepts in a digital format, which was subsequently shared on the programme's social media sites.

## Reference:

Welch Bacon, Pike Lacy, & Lam. (2021). *Knowledge Translation in Athletic Training: Considerations for Bridging the Knowledge-to-Practice Gap*. [https://doi.org/10.4085/0470-20/2698664/10.4085\\_0470-20.pdf](https://doi.org/10.4085/0470-20/2698664/10.4085_0470-20.pdf)



## 5 Key Points In Sports Nutrition (Be Adaptable)

### 01 KNOW YOUR SPORT

Know the physical demands of the sport. Duration, intensity, volume etc....

It's NOT one plan fits all, even in team sport settings. Each player is unique with different dietary requirements, diseases and preferences.

### 02 IT'S PERSONAL

### 03 ENERGY EXPENDITURE

How much calories burnt during the sport vs your maintenance calories  
- Pre workout  
- Intra workout  
- Post workout

Adequate sleep is vital for aiding the immune system and sport recovery, also aids in good mental health.  
- 8 hours approx

### 04 SLEEP

### 05 SUPPLEMENTATION

It's recommended to get your dietary requirements from foodstuffs. However if time is a constraint using supplements to boost up your Carbs, Protein, Fats intake is advised.

## Concept Mapping

Summary of Teaching & Learning Context

Concept mapping is growing in popularity as an active learning strategy. It is viewed within the Athletic Therapy Education field as a process that facilitates clinical reasoning and decision making, through a student-centred approach to learning (Speicher et al., 2013).

As part of the Athletic Therapy programme in TUS Midlands, our students are required to have in-depth knowledge and understanding of musculoskeletal injuries, including aetiology, pathophysiology, clinical presentation, differential diagnosis, treatment and rehabilitation. Core modules in Athletic therapy and other allied healthcare professional domains, require clinicians and students to think critically and reason clinically (Barrett et al., 2018), which ultimately is one of the main responsibilities of an educator in this field.

Through the use of the flipped classroom approach in the program, I wanted to enhance critical thinking and transferability of theoretical knowledge through the use of concept mapping. This allowed the students to link many similar clinical presentations of musculoskeletal injuries, highlighting the similarities and differences in an anatomical area, in a visual and interactive representation. This is an importance task in the development of knowledge and metacognition of students, whereby students can scaffold information and present it a more meaningful and simplified way.

## Implementing the Strategy

Small groups of 3 or 4 students, where they are provided with a topic or a concept to create multiple different links or maps. After the session, each group presents their concepts and allows for questioning and debate around the mapping. This can be done using flip-board paper, whiteboard or digitally.

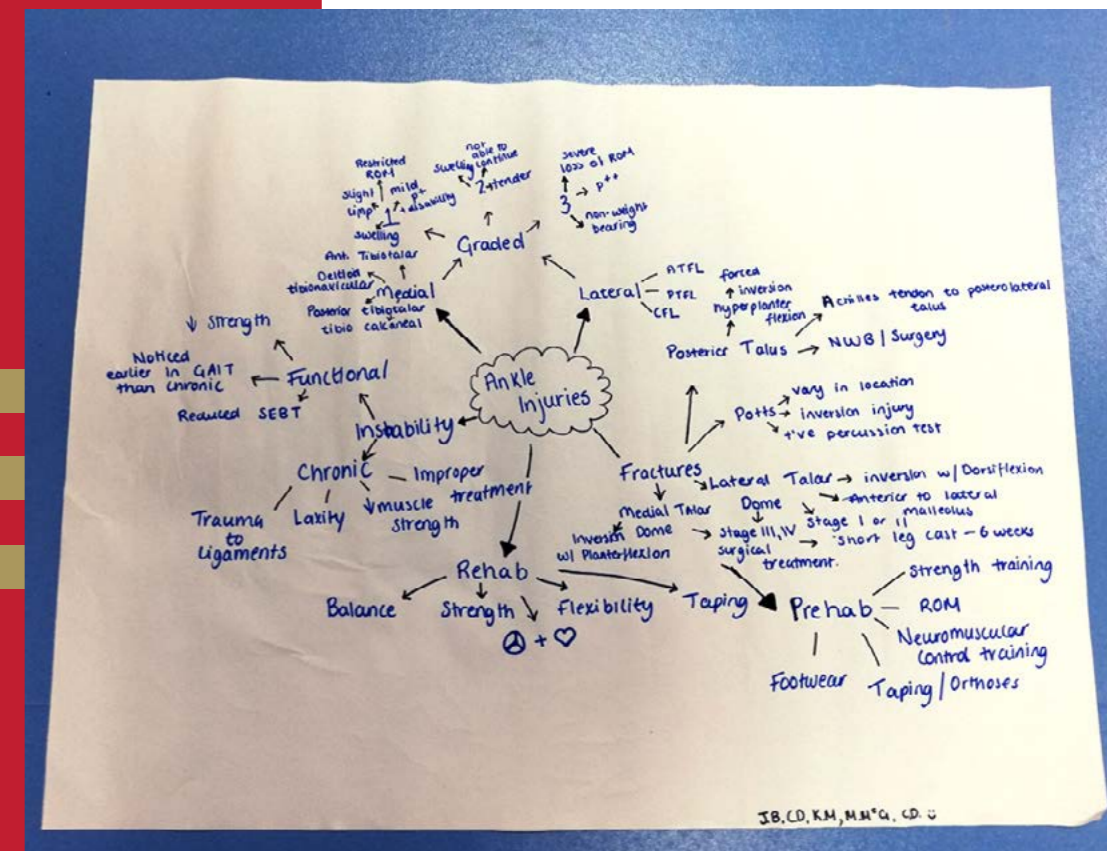
## Observations/Reflections

Students found it novel, engaging and interactive way of presenting theoretical concepts, highlighting the interconnectivity of the subcomponents of the concept. (see image below)

## Reference:

Barrett, Denegar, & Mazerolle. (2018). *Challenges Facing New Educators: Expanding Teaching Strategies for Clinical Reasoning and Evidence-Based Medicine*. *Athletic Training Education Journal*, 13(4), 359-366.  
<https://doi.org/10.4085/1304359>

Speicher, T. E., Martin, M., & Zigmont, J. (2013). *Evidence-Based Concept Mapping for the Athletic Training Student*. *Athletic Training Education Journal*, 8(4), 124-130.  
<https://doi.org/10.4085/0804124>



# 3 Visual Conceptual Exploration Using Inquiry Graphics

Denise Mac Giolla  
Department of Social Care, TUS Midlands

## Summary of Teaching & Learning Context

Year 1 undergraduate Social care programme, Module name: Creative Approaches (art) to Social Care

## Rationale for this learning approach

Visuals are powerful devices for active knowledge construction and deep authentic learning. Presented here is an active learning task that teaches threshold concepts and brings critical awareness of how the visual world can influence, persuade and transmit ideas and messages often unbeknownst to us (MacGiollaRi, 2020). This novel approach brings together threshold concept (TC) theory and inquiry graphics theory as 'threshold graphics' (TG) (Lacković, 2020a) utilising the abundance of visual materials, often an untapped resource. Threshold graphics, as a teaching method, offers a critical approach for connecting often abstract and language-centric conceptual knowledge to everyday embodied, material and visual experience, using static or moving images as key vehicles of conceptual inquiry.

Learning threshold concepts may then be mediated by exploring semiotic or 'sign' relations in between an abstract concept or theory and their embodied manifestations via diverse visual media, chosen or created by students and/or teachers to represent their subjective experiences. Also by representing concepts visually, troublesome knowledge 'gaps' can be identified, shared and worked thereby with an effective gateway to significant knowledge exploration, acquisition, critical engagement and conceptual knowledge integration

## Assessment process

This activity is linked with a lecture on semiotics and is assessed in a task-based portfolio in Moodle.

## Implementing the Strategy

Students are first introduced to the concept of 'signs' as anything that means something to someone (See Peirce's semiotic philosophy Atkin, 2010) ) and how 'sign' meanings can be individual and shared for communication purposes in culture and globally (Lacković, 2020b; Lacković & Olteanu, 2020).

Students then search and select an online image representing concepts such as creativity, disability, homelessness, inequality or power. They then deconstruct the image online or in a class by using the inquiry graphics (Lacković, 2020a) step by step process.

The first step involves slowly detailing what they see by listing and numbering all the things in the image without meaning followed by an overall description, again without meaning. The final step involves meaning making and asking questions such as; how do the signs identified in the image give you meaning? What do you associate with these? How do these relate to the concept under consideration? How do you as a person/novice professional respond to these meanings?

The images can then be reflected upon and discussed with each student describing how they approached the task and anything they noticed in their search.

## Advice for organising the learning strategy

- It is helpful, although not essential, for the educator to understand basic semiotic theory, in this case, visual signs.
- Adaptions can include educator sourced images shared and analysed in a large group setting or students selected images printed out and discussed in small groups. See the example (Figure 1.) of an image used in class to explore the concept of 'abuse'. Also asking students to take photographs of objects representing a concept or idea.



Figure 1: Image A. Scared woman victim of domestic torture and violence: Source: dundanim (Photographer). (2019) www.istockphoto.com.

- Images should only be shared within the classroom setting and on Moodle.

## Observations/Reflections

Generally, students are enthusiastic about online visual searches however in order avoid to choosing the first image students should search for 5-10min minimum. This also improves students' observations thus informing critical discussion. Suggested questions here can be around representations of people (gender, ethnicity, and age), style and type of image (stock imagery, historic, journalistic etc.), and text accompaniment. Also similarity and differences, collective messaging and how particular concepts are represented.

## Recommended Resources

Atkin, A. (2010). *Peirce's Theory of Signs* (Stanford Encyclopedia of Philosophy). Retrieved March 20, 2022, from Online website: <https://plato.stanford.edu/entries/peirce-semiotics/>

Lacković, N. (2020a). *Inquiry Graphics in Higher Education. New Approaches to Knowledge, Learning and Methods with Images*. London: Palgrave & Macmillian.

Lacković, N. (2020b). *Thinking with digital Images in the Post-Truth Era: A method in Critical Media Literacy. Postdigital Science and Education*, 442–462. Retrieved from <https://link.springer.com/content/pdf/10.1007%2Fs42438-019-00099-y.pdf>

Lacković, N., & Olteanu, A. (2020). *Rethinking educational theory and practice in times of visual media: Learning as image-concept integration. Educational Philosophy and Theory*, 0(0), 1–16. <https://doi.org/10.1080/00131857.2020.1799783>

MacGiollaRi, D. (2020). *Learning to Put Everyday Creativity, Semiotics and Critical Visual Literacy Using Inquiry Graphics (IG) Visual Analysis to Work in Social Care. Irish Journal of Applied Social Studies*, 20(2).

An argument map (AM) organizes any prose or text inclusive of an inferential signaller (e.g. but, because, however) into a hierarchical representation, with propositions arranged in coloured boxes (i.e. green = support; red = objection) and connected by arrows that further highlight such relations between propositions (van Gelder, 2002; 2003). As such, AMs are designed in such a way that if one proposition is evidence for another, the two will be appropriately juxtaposed (van Gelder 2001). Simply, an AM (see Fig. 1) as distinct from a 'mind-map', is a visual representation of an argument's structured network of reasoning, making it unambiguous and explicit, with no need for attention switching from paragraph-to-paragraph or page-to-page in search of reasons and objections to the argument's central claim. Moreover, having available the structure of an argument facilitates logical reasoning, the ready construction of a 'mental image' of the whole argument and the answering of specific questions about the relation between one proposition and others. Thus, AMs remove obstacles to learning regarding the need to simultaneously read the text and mentally visualize the relational structure of the presented argument (e.g. see Dwyer, 2017; Dwyer, Hogan & Stewart, 2010 2011; 2012; 2013).

AMs can be used passively as study aids developed by educators for their students (something I often do in my classes). Research suggests that such use can significantly enhance recall of information within the AM (Dwyer, Hogan & Stewart, 2010; 2013). AMs can also be used as an active learning tool, in which students can develop maps from scratch or add boxes or branches to previously started AMs. In my classes, I often present maps with blank boxes or unfinished threads to talk through with students. I also recommend that they construct AMs at home, in preparation for their continuous assessment essays and exams. Likewise, research suggests that active argument mapping can enhance critical thinking performance (e.g. Butchart et al., 2009; Dwyer, 2017; Dwyer, Hogan & Stewart, 2011; 2012).

For those interested in using argument mapping in the classroom, please consult the referenced research or contact myself at [cdwyer@ait.ie](mailto:cdwyer@ait.ie).

## References

Butchart, S., Bigelow, J., Oppy, G., Korb, K., & Gold, I. (2009). *Improving critical thinking using web-based argument mapping exercises with automated feedback*. *Australasian Journal of Educational Technology*, 25, 2, 268-291.

Dwyer, C.P. (2017). *Critical thinking: Conceptual perspectives and practical guidelines*. Cambridge, UK: Cambridge University Press

Dwyer, C.P., Hogan, M.J., & Stewart, I. (2013). *An examination of the effects of argument mapping on students' memory and comprehension performance*. *Thinking Skills & Creativity*, 8, 11-24.

Dwyer, C.P., Hogan, M.J., & Stewart, I. (2012). *An evaluation of argument mapping as a method of enhancing critical thinking performance in e-learning environments*. *Metacognition and Learning*, 7, 219-244.

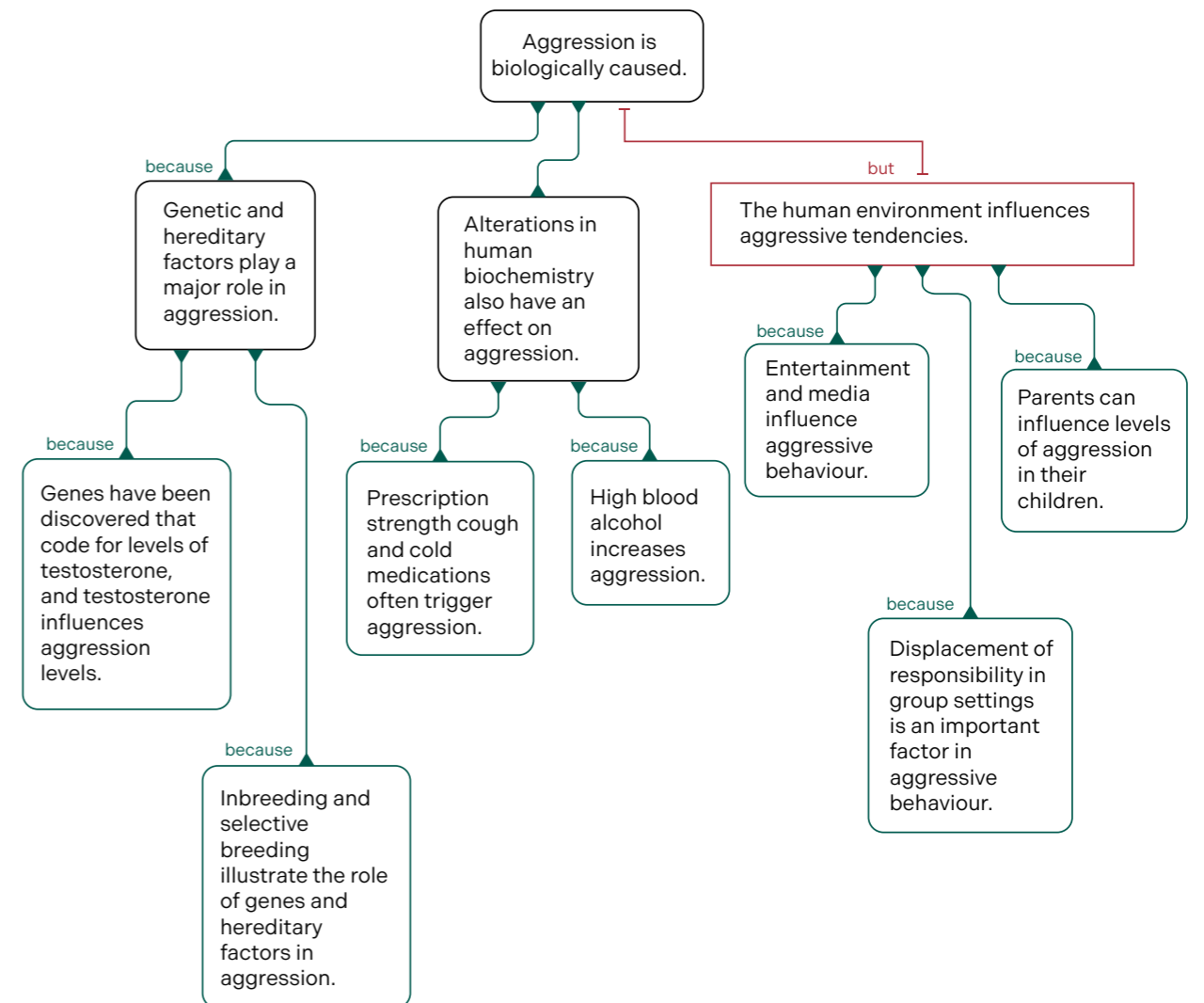
Dwyer, C.P., Hogan, M.J., & Stewart, I. (2011). *The promotion of critical thinking skills through argument mapping*. In C.P. Horvart & J.M. Forte (Eds.), *Critical Thinking*, 97-122. Nova Science Publishers, New York.

Dwyer, C.P., Hogan, M.J., & Stewart, I. (2010). *The evaluation of argument mapping as a learning tool: Comparing the effects of map reading versus text reading on comprehension and recall of arguments*. *Thinking Skills and Creativity*, 5, 1, 16-22.

van Gelder, T. J. (2001). *How to improve critical thinking using educational technology*. In G. Kennedy, M. Keppell, C. McNaught & T. Petrovic (Eds.), *Meeting at the Crossroads: Proceedings of the 18th Annual Conference of the Australian Society for Computers in Learning in Tertiary Education*, 539-548. Melbourne: Biomedical Multimedia Unit, University of Melbourne.

van Gelder, T.J. (2003). *Enhancing deliberation through computer supported argument mapping*. In P. A. Kirschner, S. Buckingham-Shum, & C. Carr (Eds.), *Visualizing argumentation: Software tools for collaborative & educational sense-making*, 97-115, London: Springer-Verlag.

Fig. 1: An example of an argument map (Dwyer, Hogan & Stewart, 2011)



# 5

## The Use Of Moodle Board In Active Learning Dr. Gary Stack Department of Nursing and Healthcare & Department of Learning and Teaching, TUS Midlands

### Summary of Teaching & Learning Context

Subject domain: BSc in Pharmacy Technician

Group size: 15 students

Stage of Programme: Year 3

The TUS Department of Learning and Teaching in conjunction with DCU have developed a GDPR compliant platform that allows students to create digital "post-its" on a virtual board. Moodle Board shares much of the functionality of commercial software such as Padlet® but located within the familiar environment of Moodle. Moodle Board allows students to share text, images, videos and website URLs, opening up endless possibilities for the creation of engaging student activities. I use Moodle Board to facilitate creative thinking, problem solving and peer learning as part of my approach to active learning.

### Implementing the Strategy

The Moodle Board plugin can be selected as an activity within the Moodle virtual learning environment. Step-by-step guides on how to create and use Moodle Board are available under recommended resources below. In advance of a face-to-face session, I set-up a Moodle Board to prompt students to think about a problem or situation and to share their contributions anonymously with their peers. During the class, I revisit the Moodle Board and use the student contributions as a prompt for further discussion. Sometimes, I will ask students to rate the top contributions to the Board. I also have the option of categorising or arranging the contributions posted under emergent themes, in collaboration with the group. Having a clear lesson plan in advance of the face-to-face session, is essential in maximising the benefit of this strategy.

### Your Observations/Reflections

Moodle Board is relatively simple tool with enormous potential to encourage active learning. Unlike much of the commercially available education technology, it is quick, easy to use and endlessly flexible. I frequently use the tool to encourage student engagement as part of a flipped classroom approach.

I find that allowing students time to consider a problem and generate ideas collectively on Moodle Board in advance of a class maximises the potential for learning during each live session. Like many asynchronous learning activities, I find that posing thoughtful and considered questions and framing the activity carefully in the context of the planned future lesson leads to the best outcomes.

I have also found it essential to revisit the Moodle Board contributions during the live session to validate student contributions and encourage students to take the time to contribute to Moodle Board activities in the future. The reaction to Moodle Board has been overwhelmingly positive with students commenting on how easy it is to use.

The option to include websites, images and videos with Moodle Board posts is also something that is widely appreciated. If you are interested in a new approach to encourage students to collaboratively engage in active learning, I would highly recommend giving Moodle Board a try.

### Recommended Resources

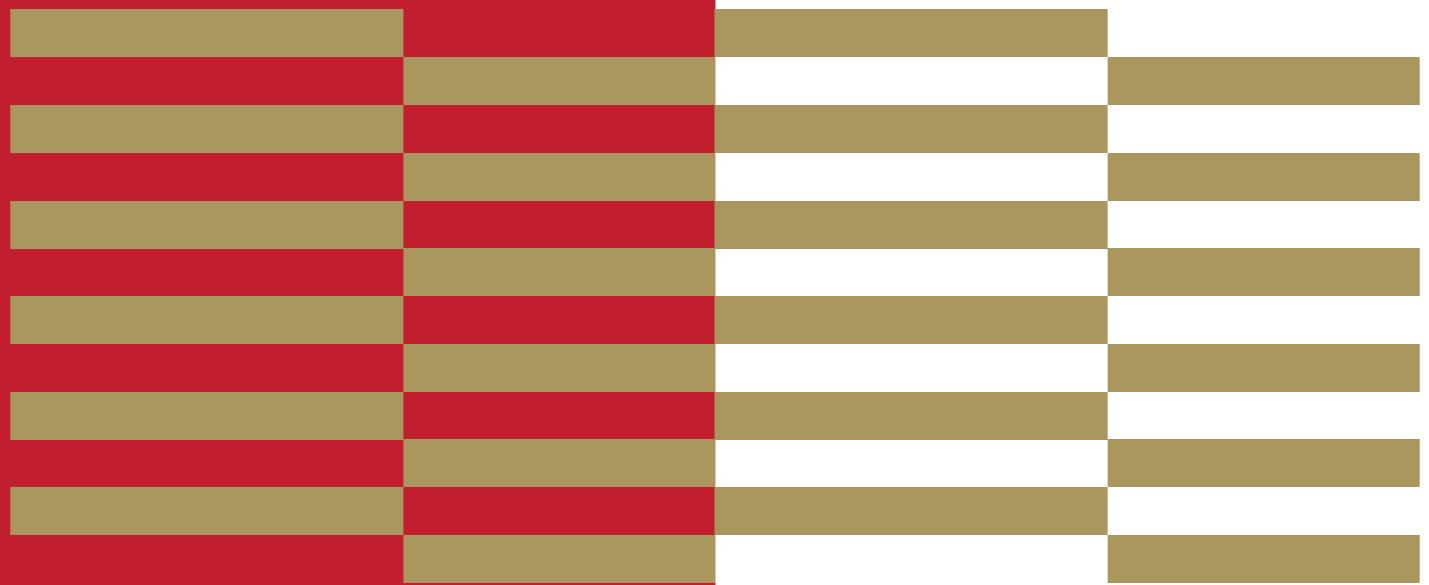
How to create a Board activity on Moodle (Video)  
<https://www.youtube.com/watch?v=CQnAezg00K0>

How to create a post on Moodle Board (Video)  
<https://www.youtube.com/watch?v=ulBOsxFMLSsw>

How to access details of Moodle Board submissions  
<https://www.youtube.com/watch?v=4uj1hOR8Szl>

Written Moodle Board Guide  
[https://moodle.com/news/board-plugin-virtual-board-postits/?utm\\_campaign=plugins&utm\\_source=twitter&utm\\_medium=social&utm\\_content=1634098146](https://moodle.com/news/board-plugin-virtual-board-postits/?utm_campaign=plugins&utm_source=twitter&utm_medium=social&utm_content=1634098146)

Ideas for using Moodle Board  
<https://enhancingteaching.com/2021/01/04/5-uses-of-moodle-board-to-engage-students/>



# 6

## Gaining Insight Into Students' Difficulties Using KWL Aoife Walsh Student Resource Centre, TUS Midlands

### Summary of Teaching & Learning Context

Peer Assisted Student Support, (PASS) is an optional 5-credit module available to second year students at TUS: MMW (only Athlone campus currently). Between 30 – 40 students attend two days of training to prepare them for their role as PASS Leaders to run timetabled PASS sessions during semester one. From induction, first year students are encouraged to attend PASS sessions to help ease their transition to higher education.

Instructional technologies allow students to submit anonymous responses to a question posed and enables facilitators to collect and analyse data quickly (Bruff, 2009). One of the advantages of identifying where students' difficulties lie is that facilitators can adapt their lesson plan or structure a discussion in response to the points raised (Bruff, 2009).

KWL is used during PASS pre-training (flipped classroom). Students are asked to complete K and W on a shared Word document before watching a video about PASS. They return to the document and complete L. Outstanding questions are noted by the facilitator to be addressed during the face-to-face training.

### Implementing the Strategy

With the KWL approach students record everything they know and everything they want to know about the topic to be covered (K and W columns). Then they read/watch/listen to the learning materials. Students then return to the KWL and see if any of their comments can be moved from the W to L (what they have learned) column. Any questions left in the W column should be addressed in class.

The strategy can be used as part of a flipped classroom asynchronously or synchronously during a live lecture. The strategy can be implemented using pen and paper in class, via a shared Word document or using an instructional technology such as Moodle Board or Padlet.

### Your Observations/Reflections

Students engage with the learning material on a deeper level because they have identified questions before engaging with the learning materials.

When students complete written KWLs, the facilitators have no insight into students' difficulties or areas of misunderstanding. Utilising an instructional technology makes the activity more interactive and prompts discussion. The technology can be returned to at a later time to identify new areas of confusion and/or learning among students. However, it is difficult to manage instructional technologies with a large group, therefore the number of students may have an impact on the method chosen.

KWL was implemented using a shared Word document in 2021 with limited success. It was difficult to ascertain who completed the KWL on a shared document. For example, one student contributed very detailed answers which seemed to stop other students from contributing.

### Recommended Resources

Bruff (2009). *Teaching with classroom response systems: Creating active learning environments*. San Francisco: Jossey-Bass.

Ogle, D. M. (1986). *K-W-L: A teaching model that develops active reading of expository text*. *The Reading Teacher*, 39(6), pp. 564–570.  
<http://www.jstor.org/stable/20199156>

Padlet: <https://padlet.com/auth/login>

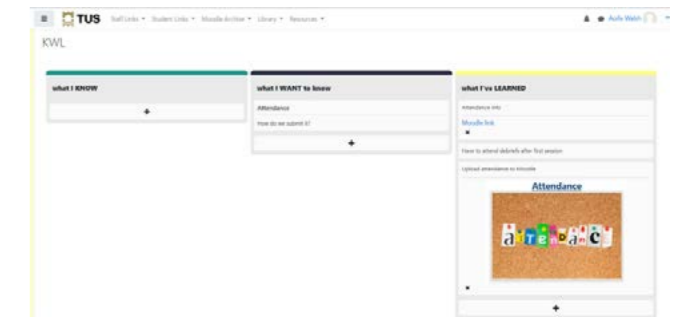


Figure 1: KWL on Moodle board

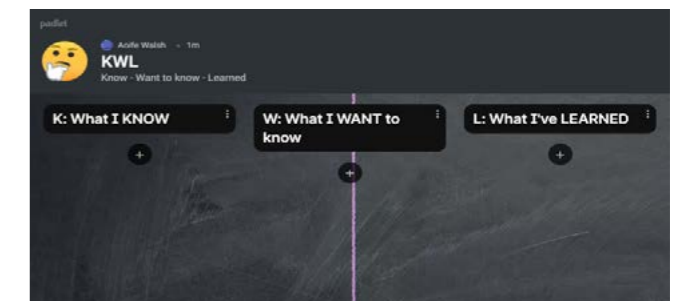


Figure 2: KWL on Padlet

**Summary:**

Many students struggle with writing at one time or another and find academic writing “daunting” (Carlse, 2019, p. 183). One strategy I used previously while lecturing in the media in two universities was to implement blogging into relevant writing-related modules. Lasica (2003) argues that weblogs (blog is short for weblog) provide an innovative way for people to express opinions and promote two-way communication. Many students complain that they have writer’s block and cannot complete a particular writing assignment as they face a mammoth task getting started. Freewriting or looping (Edwards, 2021) are useful ways of getting the writing started and when the topic is of interest to the writer, as in the form of a blog, it is more likely that the writing will continue. Blogging is very different to academic writing and adopts a more relaxed style. Nevertheless, there are similarities across both forms of writing: the discipline, planning and development of ideas is consistent. A lot of students are initially not overly enthusiastic about academic writing and referencing; however blogging can potentially make the writing more enjoyable.

**Implementing the Strategy**

First Year students were tasked with setting up a blog on a topic of their choice. They were required to plan a schedule of content at the start. One blog entry was required every week and they received prompt feedback on each entry so that they could apply it to subsequent entries. They were not required to publish the blogs and were not required to engage with readers. Some students chose to publish and a small number of students linked their blogs to their social media accounts and invited comments from readers. Marks were not awarded for blogs.

**Your Observations/Reflections**

Overall student engagement was excellent. There were many benefits to this strategy, three in particular:

- Students’ writing skills developed and this benefited all of their writing tasks. Their motivation increased. Most were able to transfer the skills acquired and developed into all of their writing. Most students reported that their writing became more fluid and they were no longer overwhelmed by any form of writing including academic writing.

- It led to the creation of a more positive attitude towards writing, among most of the participants. Students stated that their ability to generate ideas for writing tasks improved and overall they stated that negative attitudes towards writing reduced.
- It helped students to transition from second-level to third-level, in terms of their writing. Many students struggle to move from essay writing in second-level to a more formal academic writing style in third-level (Sefalane-Nkohla & Mtonjeni, 2019) and writing blogs helped with this transition, particularly helping students to gain more confidence in their writing.

**Recommendations:**

I believe that blogging should be incorporated into writing-related modules in the initial years of study at third level in a formal way and marks should be allocated. From my experience, the vast majority of students who engaged with blogging were positive in their evaluations. It would be difficult to see similar levels of engagement going forward if there are no credits attached.

**References:**

Carlse J. E. (2019) *Writing centre consultants as critical friends*, Stellenbosch Papers in Linguistics Plus, 57, 183 – 194.

Edwards, A. (2021) *Beat Your Writer’s Block, Super Quick Skills*, London: Sage.

Lasica, J. D. (2003) *Benefits Blogging Brings to News Outlets*, Nieman Reports, 15 September 2003. <https://niemanreports.org/articles/benefits-blogging-brings-to-news-outlets/>

Sefalane-Nkohla, P. and Mtonjeni, T. (2019) “*We are not a ‘fix-it shop’*”: *The writing centre as a uniquely configured learning space*, Stellenbosch Papers in Linguistics Plus, 57, 1- 23.

**Summary of Teaching & Learning Context**

In the academic year 2021/22 I have scaled up use of the “WebWork” platform for my mathematics courses. WebWork is an online platform allowing students to try mathematics problems. The system is popular since it allows the instructor to control most details, such as how many times a student can try a problem, how many marks per problem, etc.

Full details on this open source platform can be found at: <http://www.webwork.maa.org/getwebwork.html>

This active learning method was targeted at a group of approximately sixty students in their third year of engineering courses. I also used the system for smaller apprenticeship courses. It should be noted that the system can scale to many hundreds if needed.

For the academic year 2021/22, I have also used the data collected by the WebWork server to compile usage statistics that I am in the process of preparing for a case study publication on students’ device-usage habits: does choice of web browser influence student scores? This is joint work with Dr F. Hegarty – MSP/Berkeley, CA, USA.

**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 recognized piece of software in mathematics. The WebWork platform allows for students to attempt mathematical problems that are individualized and taken from a pool of 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 students 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. Also they enjoyed seeing how the software handled symbolic algebra, by seeing two different forms of the same answer being graded correct.

For the data collection part of my strategy, familiarity with the “Linux” terminal was needed in order to extract access logs from the server itself.

Attached images caption:

A sample question on a Linear Algebra problem sheet asking the student to visualise an algebraic problem. Secondly some preliminary data on student grades and usage habits – this data set is not yet complete.

## CA5: Problem 18




[Previous Problem](#)

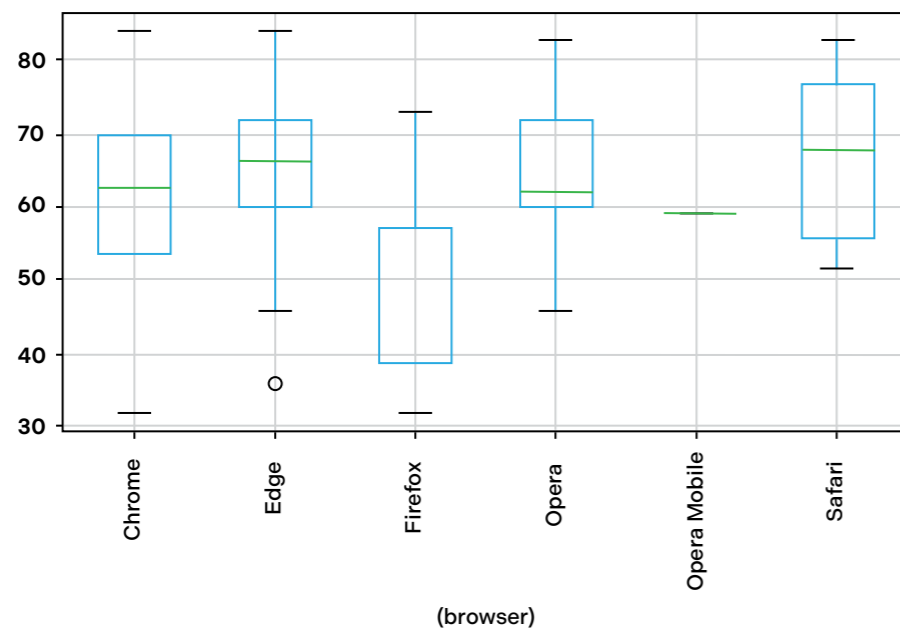
[Problem List](#)

[Next Problem](#)

This set is **visible to students**

(1 point) [Library/Hope/Multi/02-02-Linear-systems/Geometry\\_01/Geometry\\_01.pg](#)  
Match each system of linear equations with the graph that most closely matches it.  
Click on a graph to make it larger.

? v	1.	$\begin{cases} x = 0 \\ z = 1 \\ z = -1 \end{cases}$	 A    B    C
? v	2.	$\begin{cases} z = 0 \\ y = 0 \\ x + y = 0 \end{cases}$	 D    E    F
? v	3.	$\begin{cases} z = 1 \\ 3z = 3 \\ -1/z = -1 \end{cases}$	 G    H    I
? v	4.	$\begin{cases} x = 0 \\ x - z = 0 \\ z = 0 \end{cases}$	
? v	5.	$\begin{cases} -x + z = 1 \\ x + z = 1 \\ z = -1 \end{cases}$	





'PHdd' (Post, Harvest, display & discuss) is an advanced version of the more frequently used 'forum post' with two additional layers that embed learning through a summary display of key ideas posted, followed by an opportunity to discuss them in a subsequent learning episode. The strategy promotes critical thinking, analysis and evaluation.

**Summary of Teaching & Learning Context**

Participants are invited to respond to a learning trigger such as a question and post their response to the 'discussion forum' function in Moodle (or chosen VLE). A word limit can be set as desired. Participants can also be encouraged to respond to the posts of other students. Following a specified period of time (a week), the module leader or nominated student(s) collate a brief summary of key perspectives raised in the discussion thread (harvesting). These perspectives are then presented in a learning episode (tutorial, workshop or integrated into a lecture). The module leader then facilitates a group discussion based on the summary of ideas harvested from the discussion.

This Active Learning strategy can be used with any cohort or any group size. I currently use it with level 9 modules (part of the Post Grad Diploma/MA in Academic Practice Programme). These modules include: Active Learning for Student Engagement and Assessment for engaged learning. The example below is based on an invitation to share one key insight from an introductory reading list on active learning. These ideas were harvested on a power-point slide and then used as a discussion on key ideas. Participants who posted them were invited to expand on the idea chosen and why their chosen idea was a significant one.

**Forum Posts Insights: (Post Harvest display & discuss Strategy)**

**Some Perspective from the Literature**

- Winn, Del Signore, Marcus, Chiell, Freiman, Stafford and Newman (2019) cognitive learning strategies do embed learning
- Deslauriers, L., McCarty, L.S., Miller, K., Callaghan, K. and Kestin, G., (2019). Active Learning requires more cognitive learning and can be tough on students concentration
- Redmond et als. (2018) Online engagement framework – very timely and likely to be NB in HE – but requires more development to validate it
- Dewing (2010, p. 23) Active Learning improved retention and social transfer of knowledge and skills in Nurse Education
- Alexandra Pentaraki, G J. Burkholder (2017). Emotional engagement and the role of pedagogical humour & errors
- Aji, C.A. and Khan, M.J. (2019) – The flipped classroom - more challenging to operate in online learning - where students tire from online engagement?
- Redmond et al (2018) the online engagement model has inspired a monthly (First Friday) seminar format with post graduate students
- National Forum Insights (2015) Why Students Leave: need for better alignment between marketing initiatives and the academic demands of a programme - low entry points & the pressure on staff to engage low ability students
- Crimmins & Midkiff (2017) – Better outcomes for weaker students in a highly structured weekly active learning dynamic (weekly assessments)
- Kane, L (2007) – The success of Active Learning strategies depends on the assessment processes being used - AL is diluted if we continue to use summative exams?
- The power of the student – teacher relationship dynamic & how active learning unfolds in the classroom
- Canvas 2020 Global Study and Trends. The definition of student success will...evolve toward a more holistic focus on the student mental well-being, personal development, and career preparation

**Brief rationale for why you use this learning approach**

Pedagogically, it is a very effective strategy as it challenges the learner to think critically and to respond to a given question, dilemma or viewpoint posed by the module leader, course participant or key theorist. It has the potential to engage learners across five different learning domains: cognitive, social, emotional, behavioural and collaborative (Redmond et.al 2018).

From a student motivation perspective, it engages the learner in many stages of a 'reflective and emergent' conversation. Participants like to see their idea displayed, visually posted and then discussed. The strategy is inclusive and co-constructivist in nature. Every course participant is invited to post a response to a trigger posed. They have time to think before they write and are in turn stimulated by the posts of others on the same theme. The strategy encourages a movement from individual reflection and insight to an informed and emerging 'collective' group conversation. It also enables movement towards 'the flipped classroom' where students take more responsibility for their own learning, thinking and evaluating. In online learning environments, the harvested ideas can also be used as a basis for smaller discussion in break out rooms.

**Can it be used for assessment purposes?**

Yes, it can be! If you wish to allocate marks for student participation in a module, then discussion forums (using PHdd strategy can be allocated a % of marks - typically 10-15%) but the allocation need not be limited to this allocation - depending on the context and frequency of use.

**Implementing the Strategy**

Steps you take to organise it and the process involved

- Carefully choose an engaging question arising from a current theme being explored. Post this question or prompt on your VLE (e.g. Moodle – discussion forum' facility).
- Invite students to respond to the initial post (use a word limit that encourages participation).
- If desirable -ask each student to respond to at least one other post by a certain date.
- Moderate the emerging discussion, by scanning across the posts. Select the key points being made, summarise them and display them in a subsequent teaching & learning episode (powerpoint slide or word document). Students could also be asked to do this summarising (on a rotational basis).
- In the subsequent learning episode, display the key points harvested. Thank all those who posted (important here to acknowledge and encourage participation).
- Facilitate a discussion on the emerging conversation. Invite a reaction or response from participants attending the session. If there are perspectives you wish to tease out, invite further comment or clarification from those who posted.
- If there are further perspectives absent -maybe pose a question regarding these.

**Your Observations**

The impact on student engagement is significant. Participants like to see their viewpoint displayed and discussed. They also appreciate a further opportunity to develop their point or opinion. There is collective learning and in the example displayed earlier, it is a clever way to encourage reading and subsequent discussion of key ideas in the literature or essential reading list.

If you have a small group, it may be possible to acknowledge each participant's post by name. This may not be possible with larger groups, where moderation is time consuming and extracting key points is more appropriate.

**Recommended Resources**

- Redmond, P., Heffernan, A., Abawi, L., Brown, A., & Henderson, R. (2018). *An online engagement framework for higher education*. Online Learning, 22(1), 183-204. <https://doi.org/10.24059/olj.v22i1.1175>
- Ryan, M.F. (2021). [LIT Compendium of Active Learning Strategies for Student Engagement, LIT.](#)



# 10 Deploying H5P Interactive Video To Displace F2F Learning In Blended Learning

Seamus Ryan *Department of Business Studies, TUS Midlands*

## Summary of Context

A Year 1 Business Mathematics module (n = 30-40) is being re-configured for blended learning. Displacing some of the face to face teaching with video resources (such as YouTube clips) or narrated PowerPoint slides can provide for one-way "transmission" of information/learning. H5P interactive video on the other hand provides for the student to "interact" with the video content. In the mathematics domain, a 20-minute-long video might contain 4 interaction points where the student must "answer" a math problem which has been "taught" in the foregoing video. Immediate formative feedback is provided, with or without the opportunity to re-attempt. As an activity in Moodle, individual and group performance data allows the lecturer to address "muddy points" as well as to identify "at risk" students.

## Objectives

- To offer students more flexibility about when and where they learn thus reducing travel time and costs as well as facilitating students with family or work commitments.
- To provide learning resources which are, in some ways, superior to face to face learning.
- To introduce students to blended learning in order to help them become self-regulated learners and ultimately, life-long learners.
- To build up a collection of reusable resources which, over time will reduce lecturer-learner contact time.

## Student response

"I think ....the little questionnaires in them (the H5P videos) really really help, because it's kind of like some people just put on the video and .... let us listen, whereas when you put in the questions like oh; I have to pay attention. So, it puts you in the mindset; I'm in class, I need to participate...."

"...it gave you a chance to actually do it yourself as well. So that it's kind of good in a way 'cause you could rewind the video and watch it again just to make sure that you got the question right. Or if you got it wrong at least you could go back and see where you went wrong."

## Observations/Reflections

The displaced face to face time needs to be of value to the students. Allow the students to select the hour to be displaced.

A weekly "drumbeat" needs to be established. Students know that they must engage with the video in advance of say Tuesday's class.

Send a text reminder each week (more effective than email).

Observe the Moodle logs weekly to monitor engagement.



# 11 Digital Badge Accreditation

Sharon Lucey Department of Marketing Enterprise and Digital Communications, TUS Midwest

## Summary of Teaching & Learning Context

This active learning strategy was introduced to all undergraduate programmes within the department: BBus (Hons) in Business Studies (Enterprise & Innovation), BBs (Hons) in Marketing and Management, and BBs (Hons) in Digital Marketing. First year students are introduced to enterprise level e-commerce software, Shopify, as part of the Selling Techniques module. Shopify offer three digital badges, which can be built into a variety of programmes. The Shopify Basics badge is used in this module. This badge is awarded for pre-launch setup of an online Shopify store, giving students experience in building a store catalogue, creating customer incentives, and customising their website. Practical skills are gained, relevant for today's employers, with the inclusion of a digital badge accreditation.

Employers are becoming increasingly aware of digital badges as credible evidence of workplace-relevant skills. These alternatives to formal credentials offer students an additional way to gain recognition of achievements. Digital badges represent a new stage in supporting Ireland's skills agenda, allowing for a validated representation of a skill or knowledge gained and verified online. This is the first digital badge accreditation offered to our undergraduates in the department.

## Implementing the Strategy

A successful pilot programme of Shopify digital badges ran in AY19/20. The lecturer sets the students' assignments, project requirements and deadlines. There are two elements to the assessment: the development of the store itself, done in pairs and an Individual Reflection, which includes an experience summary. The lecturer performs the academic assessment and Shopify moderate the digital badge accreditation. This maintains the credibility of Shopify badges with prospective employers. To qualify for a badge, students must meet or exceed the standard as defined in the grading rubric given to students at the start of the module. Students who are successful at completing the badge can then embed the badge or link it to their social media accounts or CV. Secure badge metadata describes the award criteria, and anyone viewing the badge online is able to see evidence of the achievement. Students receive their badge via CanCred. In cases where students do not qualify for a Shopify badge, they are still awarded a grade by the lecturer, as part of their overall course assessment.

## Your Observations/Reflections

Students engage positively with this strategy each year. Receiving a 'reward' or digital badge has increased the enthusiasm of students in this module. Information contained in the individual reflections shows students enjoy the practical, real-world element this strategy provides. While students find elements of the process challenging, they are impressed at how early they were introduced to relevant technologies and hands-on tasks. Problem-solving, teamworking and communication skills are developed, along with an opportunity to implement specialist knowledge from sales and marketing modules. The set-up of this approach requires extra admin time initially. This is mostly done behind the scenes with Shopify, but also ensuring students are using the correct open learning platform. Shopify have a useful Help Centre and we have a dedicated admin support member in Shopify to contact. There are a wide range of videos, blogs, and other resources available, enabling students to find relevant information to complete the badge requirements. These can be incorporated into lab work.

# 12 TUS iMac Orchestra: Sound Synthesis, Ensemble Performance

Patrick Mark Duffy Department of Digital Arts & Media, LSAD -TUS Midwest

Full Title: TUS iMac Orchestra: sound synthesis, ensemble performance and improvised solo performances

## Summary of Teaching & Learning Context

This activity is inspired by the works of the Princeton Laptop Orchestra (PLOrk) and the Huddersfield Experimental Laptop orchestra (HELO). These groups consist of students, musicians, and researchers who use laptops and audio software as musical instruments in a group performance 'orchestra' context.

This lab session was created for the first year students of the Music Technology & Production course as part of the Acoustics 1 module. The appropriate group size for this activity is around twenty students.

This activity asks students to explore novel methods of music generation and communal performance, it forms part of the continuous assessment process and assesses a student's ability to engage in, and contribute to impromptu group-based activities.

## Your Observations/Reflections

This session began with the question 'Do you think computers are instruments?', which raised a great debate amongst the class and eventually an agreement that computers can be used as instruments when we began generating musical notes and chords.

Asking students to make music with non-traditional tools encouraged collaboration and produced a lot of laughter during the performances when the latency of the machine would effect the musical timing.

A number of students said that it was the best lab session of the year, which was fantastic.

## Recommended Resources

Audacity Digital Audio Workstation; available at [www.audacityteam.org](http://www.audacityteam.org)

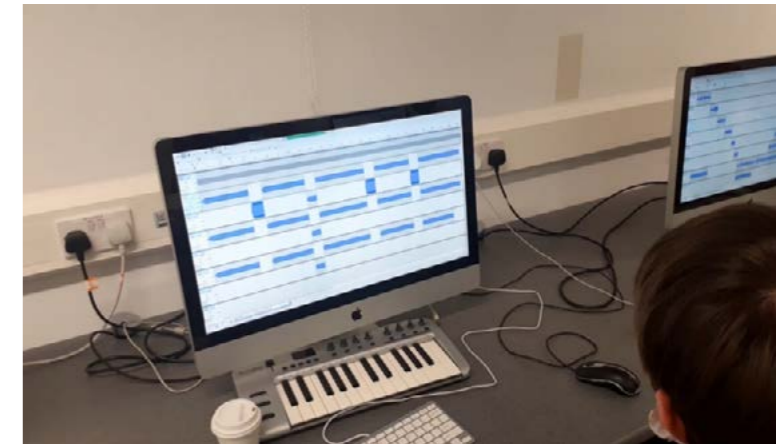
## Implementing the Strategy

Computer labs are inherently suitable for this activity; for this session, the 8A104 lab on the TUS Moylish campus was used which has a group of twenty iMac machines.

The software used to generate sound is Audacity, a free digital audio workstation.

The activity mimics a real orchestral performance that follows a programme of events;

- Tuning up, which consists of synthesising the sound of an oboe with sine waves and adjusting the volume levels of the machines.
- Harmonics and Inharmonics, where students create complex tones by generating single sine wave components (generate > tone > sine > frequency value in Audacity).
- Arpeggios, where each student generates a single note from a chord in the key of C Major.
- To build up a collection of reusable resources which, over time will reduce lecturer-learner contact time.
- Ensemble performance, where the class plays 'Mary had a little lamb'. Each student acts as a single note in the tune. The instructor plays a metronome with their machine and the students are asked to play the note they generated, in time and in sequence with the song by pressing play on Audacity at the correct time.
- Intermission, where the students can visit the canteen as if they were attending an event.
- Sine wave soloists, where the instructor generates a 'backing track' in Audacity using chords from the C Major scale. The students are given fifteen minutes to construct a short solo. Each student then plays their solo section in turn.



# 13 Three-Stage MCQ Quiz For First Years

Dr Geraldine Cuskelly  
Department of Sport & Health Science, TUS Midlands

Full Title: Three-stage MCQ quiz for first years (using moodle & either Zoom or IT room)

## Summary of Teaching & Learning Context

Subject domain - BSc Nutrition & Health Science & BSc Physical Activity & Health Science (Year 1) (n= ~60)

## Brief rationale for why you use this learning approach

Previously delivered as summative assessment in paper format – students did not get their assessment results for a number of weeks which was unsatisfactory. Introduced a two-stage “practice test” online to improve test scores and to provide immediate marks and feedback in the form of correct answers through Moodle. Then further developed a three-stage assessment so students rerun the test again after collaborative work with the group.

## Brief rationale for why you use this learning approach

Forms part of summative assessment of a 5 credit module (Sem 1)

## Implementing the Strategy

### Steps you take to organise it and the process involved

Activity can be delivered as either summative or formative assessment; encompassing peer-learning and team work. The activity can be carried out either online using a VLE platform (enabled with breakout rooms) or as an in-person activity (students must have access to VLE to access quiz).

### Stage 1

Students complete an MCQ quiz (individually) provided through VLE. In order that students do not collaborate at this stage, the order of presentation of the quiz questions (and multiple choice answers to each question) are shuffled so effectively, that each student is completing a different quiz. This can be done in a variety of settings (IT room or online using Zoom to facilitate sharing the quiz password on quiz day).

### Stage 2

Students are randomly allocated to groups (of 3); (in-person or online). The group complete the same quiz again; also provided through the VLE. This time the quiz questions and answers revealed to everyone are in the same order, to facilitate collaboration.

### Stage 3

Students repeat stage 1 quiz (individually) provided through VLE. This time questions and answers will be shuffled again so they do not resemble the stage 1 quiz.

To avoid students collaborating, the order of presentation of the quiz questions (and answers) are shuffled for the third attempt.

## Practical hints or advice here for colleagues about organising the learning strategy

ALL 3 quizzes are timed; with stage 2 having slightly longer time allowed to facilitate discussion and debate about the quiz answers.

## Your Observations/Reflections

The overall impact on student engagement: As a summative assessment, it is very effective as it incorporates assessment as learning. The questions can be adjusted to the level of complexity required.

## Benefits: (for students)

- Students are motivated to prepare because (i) they need to contribute to the team and (ii) Stage 1 is worth a large proportion of marks
- Students do not get to choose the group they are in
- Bonus points are given to the group who achieve the highest improved mark (top 3 improvers receive a bonus % mark to encourage collaboration)
- Students learn from others in this 3- stage activity whereby they work alone (stages 1 & 3) and then complete the same task with a group (stage 2)

## Student reaction to the learning strategy

To assess the effectiveness of this approach, quiz scores are compared between stages 1 and 2. In my experience, students’ scores generally increase between Stage 1 & 2. To assess individual student understanding, a stage 3 is added such that stage 1 is repeated again, by each student individually. This tests what they have learned from the group work.

Change in scores between stage 1 and 3 indicates individual improvement; final student scores are weighted as follows so that Stage 1 is still allocated a significant proportion of marks (to motivate preparation in advance of assessment day).

	Stage 1	Stage 2	Stage 3
% of total marks	65%	15% (weighted by improvement of each student from stage 1 to 2)	20%

## Any obstacles/challenges experienced

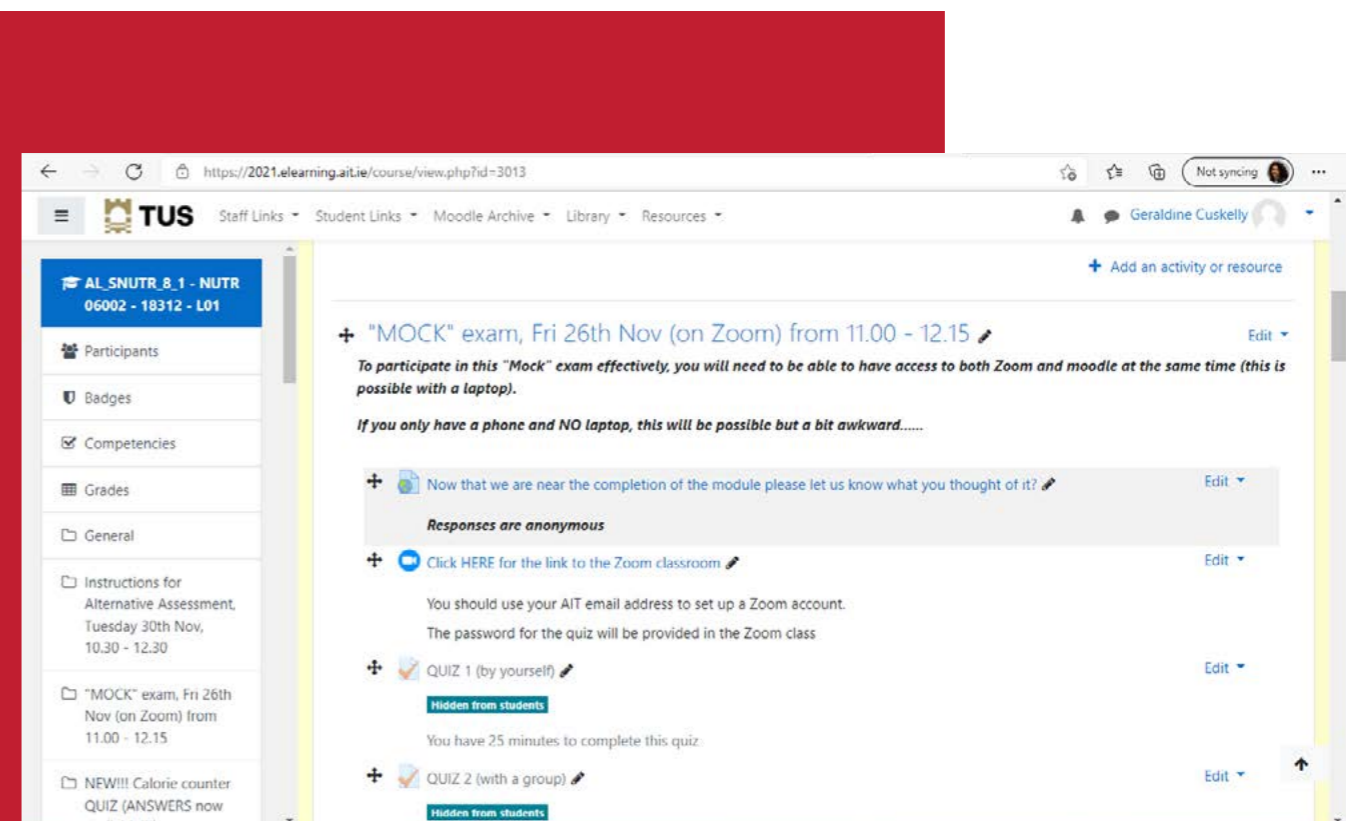
When conducted as a formative assessment, the challenge is to get students to attend.

## Advice for overcoming some of the challenges

- Explanation to students that formative assessment will assist towards summative assessment.
- The moodle quiz function can be enabled to provide correct answers immediately after the final Stage 3 quiz and students will be provided with Stage 3 mark immediately.
- An explanation of the reason underpinning the “correct” and “incorrect” answers can be integrated into the moodle quiz.

## Benefits (for staff)

- Moodle quiz function is very effective method of delivering an MCQ quiz and marks are automatically collated, so feedback to students can be provided more quickly than paper quiz. Final marks are calculated automatically.
- Ultimately, the final mark is significantly weighted by the individual score achieved at stage 1.



# 14 Interpreting A Turnitin Feedback Report

Catherine O'Donoghue  
Department of Learning & Teaching, TUS Midlands

## Summary of Teaching & Learning Context

Working to support academic writing skills across the whole university, an instructional video on how to use the information presented in a Turnitin feedback report was developed.



Students are often asked to review their work for possible plagiarism. However, anecdotal evidence suggested that students do not always know how this can be achieved. The issue of identifying text similarity matches has been addressed by adding a non-repository Turnitin upload practice link on the Academic Writing Skills Moodle resource page. Students can use this link to generate a feedback report on a draft of an assignment they are writing prior to submitting the assignment for their module.

Generating the report is one part of the issue of identifying matches of text. However, students do not always know what to do with the information contained in the report. As a solution, a short instructional video was created using Screencast.

The video presents an example of a Turnitin Feedback report on a writing assignment, with analysis of the different text matches. The voice over and captions explain why the match might have occurred. The video also presents strategies that can be applied to different types of text matches to improve the quality of writing, increasing awareness of academic integrity.

## Implementing the Strategy

This screencast video, approximately seven minutes in length, has been uploaded to the Academic Writing Skills Moodle page. Access to the Turnitin Upload Practice link is restricted until the student has viewed the instructional video. This is required only once; however, students can view the video as many times as they need.

As a result, students become more aware of how to use the feedback information in the report. Data from the Moodle page suggests that this resource is well used by students, with multiple views by some users, thus achieving the goal of being a reusable learning resource. Should students require more assistance, they are able to make an appointment in the Academic Writing Centre to discuss the feedback report, and ways that their writing can be enhanced based on the information in the report.

## Your Observations/Reflections

This resource has had a positive impact on students developing stronger academic writing skills. It has increased the value of Turnitin as a similarity checker. Students are looking past the percentage to analyse their writing and are now identifying possible reasons why text has matched another source. This has resulted in students being more aware of unintentional academic misconduct, developing an increased knowledge of the value of paraphrasing and correct citations. This process contributes to a positive awareness of academic integrity.



# 15 Fairy-Tales, Role Plays & Groupwork

Dr. Mathew Mather  
Department Fine Art and Education LSAD-TUS Midwest

This strategy is inspired by: Case Studies, Fish-Bowl Learning, Role Plays, Using Visuals, Cooperative Learning and Groupwork, Group Presentations, A Guest Speaker and E-tivities.

## Teaching & Learning Context

This strategy was in the context of our part-time, level 8, 10 ECTS flexible learning Certificate in Jungian Psychology with Art Therapy. Of the 12 contact days, two are dedicated to The Interpretation of Fairy-Tales, with a follow up zoom 90 minutes evening tutorial. The contact days consisted of guest lecturers from 11:30am – 1pm, and from 2-4pm. The Art Therapy session was from 9:30am-11:10am both days. Due to the pandemic the contact days were relocated to online. A silver lining to this was that I had the opportunity to collaborate with my wife on the Art Therapy morning, and also 'sat in' on the guest lecturer sessions (as I had to be the tech guy). Our class consisted of 15 mostly mature students with careers in the arts or healing professions.

## Implementing the Strategy

This screencast video, approximately seven minutes in length, has been uploaded to the Academic Writing Skills Moodle page. Access to the Turnitin Upload Practice link is restricted until the student has viewed the instructional video. This is required only once; however, students can view the video as many times as they need.

- A week before the two contact days, students were requested to do some homework, by creating a fairy-tale character of their choice with art materials to hand (mask-making, figurine 'sculptures' and so on).
- For the art therapy session on the first contact day, they were invited to introduce their character, and share its characteristics, magical powers and a bit of its narrative context in small groups (break-out rooms of four each - one group of three), and then return to the main space for a general sharing.
- The follow-on guest lecture (predominantly theory, but also including experiential elements) then helped to introduce theory, which tacitly allowed for resonances to the earlier workshop.
- The following morning the group were tasked to create a 6-minute fairy tale in their groups. They were put in break-out rooms for about 25 minutes. Lyn Mather (Art Therapist) and myself would enter the rooms unobtrusively as 'flies on the wall' (web cam off), to ensure groups were on the right track.
- Upon return to the main space, we implemented a fish-bowl type environment. Each group with their characters had to, in turn, enact their fairy tale. Technically, this was achieved by 'hiding all participants' excepting the group who were unmuted and web cams active. In this way we could witness the fairy tale. After this, return to the main space, and move to the next group.

- After all groups had completed, there was about 15 minutes for group discussion. This strengthened the experiential basis for the follow-on theoretical emphasis of the guest lecturer. The follow-up zoom session some days later (after an assessment activity on this theme) then allowed for further consolidation of the 'situated' theory.

## Observations/Reflections

I was impressed with this learning experience. Initially I had cold feet about implementing a fish-bowl style workshop given the technical uncertainties of not only a new method, but also the challenge of doing this online. Thanks to the encouragement of my wife (Art Therapist) we together managed to sort the minor tech glitches that arose. In future, I would provide a bit more scaffolding by means of one or more carefully chosen fairy-tale case studies, to allow for a stronger theoretical basis. If the staff delivery hours were more generous, we could also offer more extensive individualised feedback to the e-tivity forum assessment. This would lift the experience to a new level of learning.

# 16 Speed Dating For Ideas Generation

Elaine Tynan  
Dept of Business and Financial Services, TUS Midwest

## Summary of Teaching & Learning Context

Group activity, ideally 5 or more people. Helps come up with ideas and build on each other's ideas. This can be used as a starting point for an assessment.

## Implementing the Strategy

The steps involved in carrying out the Speed Dating for Idea Generation are:

- Make sure everyone has the tools necessary (pen & paper, whiteboard, online meeting access, etc).
- Present the topic in a clear concise manner.
- Invite everyone to come up with ideas around the specified topic.
- Ask the students to come up with as many ideas as possible in a given time (e.g. 5 minutes), then to build upon each other's ideas and/or make other people's ideas even better.
- Start with their own idea (no more than 5 minutes).
- After writing that down, they will move clockwise (or whatever suits the room) to their neighbour to discuss each other's ideas and to build upon their own.
- After that, they move again to the next idea to build upon that.
- Make sure it is clear how they will be moving to the next idea (clockwise, etc) and how you will be keeping and announcing time (2 minutes per person).
- This will repeat until they are back at their own 'starting' point.
- When people have rotated back to the starting point, ask them to reflect on their initial idea and how it has evolved. Ask them to also think about the new ideas, which ones they like and dislike.
- Finally allow some time for the entire group to discuss.
- Be sure to encourage openness and positivity (even when critiquing)
- This can be done in-class or online using breakout rooms.

## Your Observations/Reflections

It is a good way to engage students who are reluctant to engage in large group discussions or speak out in class.

Students enjoy the discussions and feel more relaxed than if they were to speak in larger groups.

Students can become 'side-tracked' so it is important to keep them focused on the topic.

Keep a firm grasp on time keeping. Coming towards the end, the list of ideas is getting longer, so a little more time may be needed.

Take note of where people start, how much time you have and how long it will take for them to make the full rotation.

## Sample Topics

Examples of topics used:

Module: *Advanced Client Programming*

Discuss the use of design principles in a specific website.

- This shows an understanding of the principles as well as requiring the students to analyse and evaluate.
- Discussing the topic leads to a better understanding as well as encouraging the students to explore the principles and evaluate the given website for the use of these principles.

Module: *Software Testing*

What attributes determine the quality of a software application?

- Again, taking the understanding to a higher level where they have to apply that knowledge to a real-life situation.
- This simulates the assessment of a piece of software and what measures would indicate a quality piece of software. This in turn leads to how a tester might test the application for these qualities.

# 17 Team Based Learning: An Introduction

David O'Hanlon & Team Stephanie Duffy, Dr Natasha McCormack and Dr Mairead Seery (TUS Midlands)

Team Based Learning (TBL) is an educational design pattern that was originally developed by Larry Michaelsen of the University of Oklahoma in the late 1970s.

TBL has a compelling evidence base which indicates that it can be a suitable approach for helping students to achieve learning outcomes, develop critical thinking skills, and develop teamworking skills (see Liu and Beaujean., 2017; Swanson et al., 2017 for meta-analyses on TBL and learning).

## Characteristics of TBL

The TBL approach has a number of hallmarks:

**Permanent Diverse Teams:** TBL involves diverse, lecturer-selected permanent teams of students who work together throughout a whole module.

**Module organised into TBL units:** A module is organised into a number of "units" (usually 4 to 8) within which a TBL "cycle" is facilitated over the course of 1 to 3 weeks.

Within each TBL cycle, there are four phases:

### Phase 1 – "Readiness Assurance Process" Phase:

Students commence the TBL cycle by independently engaging in pre-class preparation, be it reading, video, recorded lecture, H5P or other activity. Pre-class material introduces students to the key concepts associated with the TBL unit.

Once students arrive at class, they complete an individual Multiple-Choice Quiz (MCQ) on the content. This is followed by a Team MCQ: the exact same quiz, but this time in their teams. Naturally, the team quiz promotes peer learning as students clarify concepts with one another as they complete the quiz. By monitoring the scores in the Team Quiz, the lecturer can then provide targeted clarification on the areas that may be causing confusion for students. [See submission no 18 \(Natasha McCormack\) for more on this phase](#)



Figure 1: Students completing a Team MCQ using IF-AT Scratchcards

### Phase 2: Application Phase:

The next stage is "application" where the teams work together to identify solutions to problems (known as "application exercises". There are usually three or four application exercises per TBL cycle, and this is where the bulk of time is spent within a cycle (about 70% of time). The problems (case studies, scenarios) are designed to require higher order thinking within teams.

Students work together to identify solutions to relevant problems, and then report their findings simultaneously to the class.

The TBL approach emphasises the adoption of a '4S' model to the design of application exercises. This helps to ensure that the teamwork, and the facilitation that follows, is fruitful and engaging:



Figure 2: Students in discussion during an Application Exercise

When one designs application exercises that follows the 4S model, problems will be:

- significant (relevant, meaningful, real-life type problems).
- same (each group works on the same problem, resulting in other group's outputs generating interest, as teams wonder how they compared and contrasted).
- reported upon simultaneously (to guard against students not expressing their views in light of other teams' choices)
- specific (students choose responses from a limited set provided or make very specific decisions).

[See submission 19 \(Stephanie Duffy\) and submission 20 \(Dave O' Hanlon\)](#)

### TBL Unit: Phase 3: Whole Class Discussion:

After each application exercise, whole class discussion occurs, whereby a lecturer can facilitate inter-team discussion of outputs/decisions. The focus is on unearthing the rationales and reasoning behind solutions, facilitating discussion and debate between teams.

### TBL Unit: Phase 4: Peer Evaluation:

Peer evaluation is another hallmark of team-based learning, with peer assessment and feedback seen as a requisite step to build in individual accountability to the team. This occurs mid-way through a module, as well as at the end.

### The whole is greater than the sum of the parts.

The phases of TBL work together to encourage students to be motivated to engage in active learning and be ready to tackle problems that require higher-order thinking. Pre-class preparation is more likely to be carried out due to low stakes quizzes. The desire to work for the team also produces motivation to engage (and this is further reinforced by peer evaluation). The 4S design aims to ensure that students will be intrinsically motivated to engaged with application tasks. The quizzes also help students and staff to identify gaps in understanding and respond accordingly. Students don't move on to the application phase until the readiness phase is completed, thus helping high quality, well-informed debates to occur within and between teams.

The entries that follow provide examples of how these phases can be carried out in practice. The section culminates with a reflection from the authors on how learning about and adopting TBL has influenced their practice. ([see submission No 35](#))

### Useful Resources

An overview video of the steps of Team Based Learning by LAMS - [Introduction to Team Based Learning - YouTube](#)

See Videos of Team Based Learning in action at:

- [University of Texas - Team based Learning at UT - YouTube](#)
- [LKC School of Medicine, Singapore Team-Based Learning at LKCMedicine \(Instructional Video\) - YouTube](#)
- [Duke University Sample of Team-Based Learning - YouTube](#)
- [University of Sydney Team-based learning: The Sydney Method - YouTube](#)

Step by step guides for doing TBL are available at [Learn TBL | Jim Sibley helping you learn more about TBL](#)

Article on How TBL compares to PBL:

Dolmans, D., Michaelsen, L., Van Merriënboer, J. and van der Vleuten, C. (2015). *Should we choose between problem-based learning and team-based learning? No, combine the best of both worlds!* Medical Teacher, 37(4), pp.354-359.

Recent Meta Analyses on TBL and its impact on learning:

Liu, S.N.C. and Beaujean, A.A. (2017). *The effectiveness of team-based learning on academic outcomes: A meta-analysis.* Scholarship of Teaching and Learning in Psychology, 3(1), pp.1-14.

Swanson, E., McCulley, L.V., Osman, D.J., Scammacca Lewis, N. and Solis, M. (2019). *The effect of team-based learning on content knowledge: A meta-analysis.* Active Learning in Higher Education, 20(1), pp.39-50.

Full Title -Team Based Learning: The Power of THE Readiness Assurance Process (R.A.P)

Team-based learning (TBL) represents a new and innovative pedagogical strategy and is commonly used in the medical field. It has been suggested to result in better learning outcomes than traditional "lecture style" teaching strategies. It enhances student critical analysis and reasoning. It is a student-centred approach to learning whereby students work together in the same teams throughout a module. The outcome of teaching 'Introduction to Pharmacology' using a TBL approach with year 1 pharmacology students at TUS has provided evidence of the effectiveness of TBL.

### Implementing the Strategy

The readiness assurance process (RAP) is a core feature of TBL. Performance of learners is assessed using an individual readiness assurance test (iRAT) and team readiness assurance test (tRAT). The iRAT requires each participant to answer multiple-choice questions (MCQs), over a specified period. This allows each member of the team to demonstrate their individual understanding of the pre-assigned content. Following this, participants work collaboratively to answer the same set of MCQs, again over a specified period. Teams undertake the tRAT as an Immediate Feedback Assessment Technique (IF-AT). This allows participants to receive immediate feedback that assesses their knowledge. Participants discuss their suggested team answer to the multiple-choice questions and then scratch to reveal. Participants are given numerous chances to obtain the correct answer. The individual answers for each option are also shown, which further promotes open discussion among teams. Furthermore, students are required to finish the iRAT before taking the tRAT and prior to receiving their iRAT score.

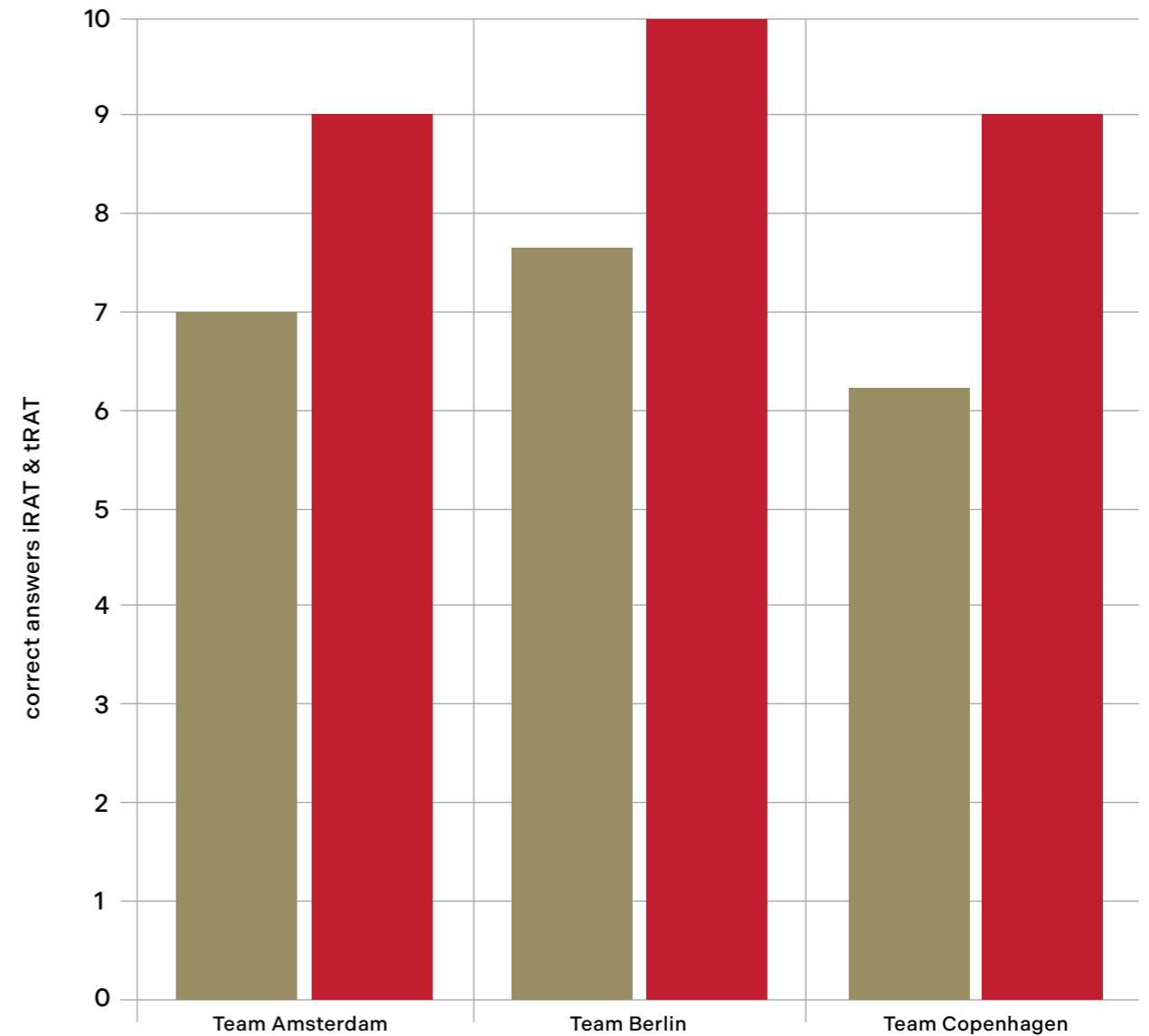
### Observations/Reflections

TBL participants performed better in their tRATs than in their own individual learning achievements in terms of RAT scores (Figure 1). The percentage difference observed was more pronounced in some cases. For example, a 45% increase in scores was seen for Team Copenhagen.

This percentage increase was more pronounced when covering complex topics such as pharmacodynamics and mechanisms of drug action. Interestingly, tRAT scores remained similar to other lessons, highlighting the benefits of teamwork and group discussion in individual student learning.

The outcome of teaching pharmacology using a TBL approach with year 1 pharmacology students has been hugely successful. It has enhanced both student satisfaction and performance compared with groups engaging with traditional lecture style teaching. Cooperative learning amongst peers is essential to the tRAT. It is evident that TBL participants performed better after group discussions than their own individual learning achievements in terms of RAT scores. In some instances, individual group members obtained similar scores in iRATs to the final tRAT score, highlighting the role of peer-based learning.

For this reason, it is a beneficial tool for an educator to use to identify students who may struggle with certain aspects of the course content. An educator can determine areas of confusion and concepts of pharmacology that learners may struggle to grasp. Knowing the common mistakes and errors that students usually make was of huge benefit. Compared with traditional lectures, it is evident that TBL and the RAP promote self-directed learning. Increased student engagement in class was observed compared to modules delivered through the traditional methods. Interpersonal interaction and peer discussion was also observed through collaboration and teamwork.



### Summary

Teams	iRAT correct answers average	iRAT correct answers	Increase iRAT vs tRAT
Team Amsterdam	7	9	29%
Team Berlin	7.67	10	30%
Team Copenhagen	6.2	9	45%
Average	6.96	9.33	34.67%

Figure 1. Summary of iRAT and tRAT scores for an individual Pharmacology lesson.

# 19 Multiple Choice 4S (Significant, Same, Specific, Simultaneous)

Stephanie Duffy  
Department of Business and Management -TUS Midlands

Full title - Multiple Choice 4S (Significant, Same, Specific, Simultaneous) Application Exercise

This strategy is used to teach an Organisational Management module to a second-year group of Accounting students, with approximately 40 students in the class.

The 4S Application Exercise forms a core part of the Team Based Learning (TBL) cycle. Students who are in permanent diverse teams (4-6 members) firstly complete pre-reading before class, followed by in-class individual and team quizzes, before moving to focus on the application of the concepts studied to real business scenarios.

The Multiple Choice 4S Application Exercises forms part of this final step and includes a structured format for the exercise focused on higher order critical thinking skills.

- **Significant** – the task must be as realistic as possible and represent the type of situation that the student might face in the workplace. It should also require higher order thinking, discussion and not be easily answered by referring to textbooks or other materials or the internet. It should require challenging application of the concepts learned to a real scenario.
- **Same** – All teams work on the same task / problem at the same time. This tends to increase the student interest in other teams' answers when they are reported – especially if they are different.
- **Specific** – a specific choice is required in the completion of the task e.g., what is the most important step.... or which of these is the best example of .....
- **Simultaneous** – teams report their answers all at the same time and therefore are not influenced by what other teams answer. This also allows for deeper exploration of what thinking led to the different responses from different teams.

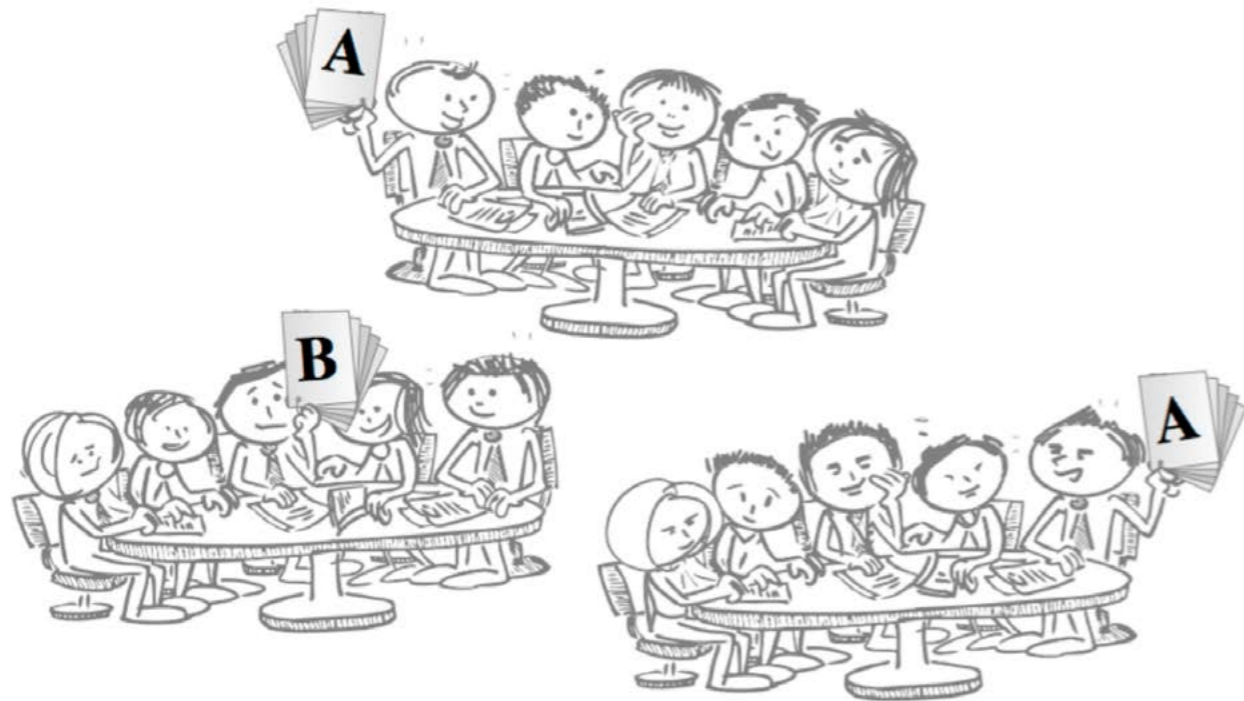


image from <https://learntbl.ca/4s/>

To implement the activity:

1. **Introduction** – explain the task required and provide details of how much time is allocated for the team to discuss and decide. Provide answer cards to each team e.g., 4 large cards with the letters A, B, C, D if using a multi choice set of answers.
2. **Team Task** – teams work independently to discuss, debate, work on the activity and reach a decision. Students can refer to their reading materials, notes, internet etc. in completing the task.
3. **Simultaneous reporting** – when the time has elapsed, request all teams to report their answer at the same time (e.g., hold up a card indicating answer A/B/C/D).
4. **Facilitated Class Discussion** – facilitate a whole class discussion on the reported results. For example, an instructor might start the discussion by saying "2 groups selected 'B' and 3 groups selected 'C' – let's start with those that picked 'B'; please explain to everyone why you chose that answer? Next the instructor might say "OK, teams who picked 'C,' how would you respond to them?" and later "I notice that no team chose 'D' – why did you not select that option?"

An alternative approach is to ask teams to rank the different options (e.g. from most to least appropriate response. This necessitates the use of technology as opposed to a voting card. Teams can indicate their rankings using a "Moodleboard". Moodleboard enables students to post an electronic Post-It note with text, a link or an image. The Moodleboard can then be projected to the top of the room.

#### Some practical considerations:

Remain in 'Facilitator' mode for the reporting of the answers and resist the temptation to be in 'content expert' mode and provide correction and right answers early on as this may shut down further cross team discussion and engagement.

Allow time for students to respond to each other as it can take time for students to gather their thoughts and be prepared to defend their choices.

#### General Observations/Reflections

This activity can work as part of the TBL process or as a stand-alone activity.

The problems need to be challenging enough to engage the students and not too easy to solve by referencing the course materials.

Consider using multiple shorter application exercises (e.g., 15 minutes) rather than longer ones as some teams may finish early with longer tasks and start to disengage.

#### Resources

Team Based Learning Collaborative Website:  
<https://www.teambasedlearning.org/>

Overview of the Moodleboard Tool - Foster learner collaboration with Board - a new Moodle plugin – Moodle

# 20 4S - Application Exercise: Alternatives To Multiple Choice

Dave O'Hanlon  
Dept of Business and Management, TUS Midlands

Full Title - 4S (Significant, Same, Specific, Simultaneous)  
Application Exercise – Alternatives to Multiple Choice

The 4S (significant, same, specific simultaneous) model helps to ensure that educators design TBL application exercises which will facilitate engaging whole-class discussions. The type of application exercise most associated with TBL is the A,B,C,D Multiple Choice model, which is outlined in x [Link to Stephanie].

Other application exercises that align with the 4S model include:

- X Marks the Spot
- Gallery task
- Make the Grade

## X Marks the Spot

This is where an image is projected onto a wall and teams simultaneously place a marker on the image to indicate a decision they have been tasked with making (specific choice).

I used this approach with a group of 15 Consumer Psychology students (year 3 Business Psychology) in a class on persuasive design. A webpage from a shopping website was projected on to the wall. The application exercise required students to apply their learning about cognition and persuasion to pinpoint (with a Post-It note) the area on the webpage that they felt was most problematic in terms of persuading consumers to purchase a product (i.e. teams all had the same, significant practice-related task). This required them to use their learning from their pre-readings, other units from the module, and their reasoning skills to make a specific decision together.

## Gallery Task

A Gallery task activity in TBL involves students creating a “low fidelity” poster with the focus being on demonstrating a solution rather than on high fidelity presentation. To align with the 4S model (same, significant, simultaneous, specific), teams will simultaneously reveal their posters which provide their solution (specific) to the same meaningful (significant) task.

In a module on Positive Psychology (Year 4, Business Psychology), I asked teams of students to apply their learning to outline a one-day training course in the area of “building resilience”. Limited to six hours of training, they had to make decisions on what was critical (and not so critical) to include (specific). Teams made posters representing their agreed schedules on flipchart paper which they subsequently taped simultaneously to the wall for all to see.

## Make the Grade

In a “Make the Grade” application exercise, teams of students encounter the same, “significant”, authentic work-related scenario (in written or video form) and their task is to allocate a specific grade or score which they simultaneously reveal to the rest of the class.

I used this during a synchronous online class within the Higher Diploma in Leadership (an online course with classes of 35 students). The focus of the unit was problem-solving skills for leaders. Teams were provided with a short, written scenario. The scenario provided an overview of how a leader approached solving a complex problem. Teams were tasked with judging the leader’s problem-solving skills and, as a team, converge on a rating out of 5. 5 was “excellent” and 1 was “very poor”. This was a precursor to a lovely whole class discussion of team choices.

## Implementing the Strategies

1. Introduction – share a handout with the description of the task (having it uploaded to the VLE is ideal for online learners). Include printouts of images if required. Explain the task and provide details of how much time is allocated for the team to discuss and decide.
2. Team Task – teams have the opportunity to discuss and debate. If working in an online setting, make sure to enable students to share their screens within their breakout rooms.
3. Simultaneous reporting – when the time has elapsed, request one member from each team to indicate their decision. For an “X Marks the Spot” exercise, a Post-It note is attached to the relevant spot on the projection. For the Gallery Task, sheets of flipchart paper are taped to the same wall at the same time. In Make the Grade students can indicate their scores on a physical or shared virtual whiteboard.
4. Facilitated Class Discussion – The discussion involves teasing out the reasoning and rationale behind teams’ decisions and creations; comparing, contrasting and challenging. At the end of the discussion summarise the key learning points. Having all team choices visible to all in the class at the same time helps this discussion to flourish.

## Your Observations/Reflections

There are many possible uses of the “X Marks the Spot” exercise. Images of maps, machines, anatomy, designs, plans could be used, depending on the subject and the learning outcome targeted.

4S Gallery task may be particularly useful for TBL-based modules within disciplines where the production of sketches, maps, processes and low fidelity prototypes are the norm. The Gallery task can also work well in an online environment (or within larger class sizes) with tools such as Moodleboard, Jamboard or LAMS. With these tools, teams (on laptops or desktop computers) work on a shared document online (instead of flipchart paper).

The “Make the Grade” exercise can also work well with a video scenario (as opposed to written). Teams might view a professional interacting with a client/co-worker, for example.

## Recommended Resources

Jim Sibley from the University of British Columbia has a website devoted to learning how to roll out TBL. His page on Application Exercises is accessible at 4S Team Application Tasks | Learn TBL.

The National Forum for the Enhancement of Teaching and Learning for Higher Education Hub features a number of resources developed on using Technology for TBL – See 81.-Facilitating-TBL-Tools-to-Succeed-Application-Exercises.pdf (<https://hub.teachingandlearning.ie/wp-content/uploads/2021/06/81.-Facilitating-TBL-Tools-to-Succeed-Application-Exercises.pdf>) for more on using technology during the application exercise phase.



# 21 Using Peer Evaluation For Assessment 'As' Learning

Dr. Maireád Seery  
Department of Computer and Software Engineering TUS Midlands

## Summary of Teaching & Learning Context

All Year 1 students in the Department of Computer and Software Engineering take a module in semester 2 called Communication for Engineering. One of the learning outcomes of the module is that students should be able to "reflect on their ability to communicate and collaborate with others in their discipline". To achieve the learning outcome, students were tasked with working on a group project related to their discipline. A team-based learning (TBL) approach supported students in this task during weeks 1-7. The project culminated in a presentation to the class in week 8.

## Implementing the strategy

Peer evaluation is a type of assessment 'as' learning. It requires students to articulate and apply assessment criteria to their peers, and ultimately to themselves. In this way, peer evaluation provides formative feedback, allowing students to adjust their own performance and improve.

Within a TBL context, peer evaluation is key to promoting individual accountability to the overall team performance.

I used different strategies to implement peer evaluation:

1. Students completed an individual, anonymous 5-star rating of each of their team members based on two questions: How well does [name] contribute ideas to the team? How well does [name] listen to other people's ideas? At the end of the lesson, students received an aggregate score based on the ratings. Students were also required to self-evaluate as part of this exercise.
2. Teams discussed and provided a written account of their teamwork using two prompt questions: What is your team doing well? What could your team do better?
3. On an ongoing basis, teams could review and rate the answers of other teams' application exercises.
4. Each team completed an evaluation sheet for each team presentation.

## Impact on student learning

Strategy 1 was the least preferred method. Concerned that their responses would be identified to them, students frequently gave each team member the full 5-star rating. I also felt that students engaged in this exercise in a very superficial manner. That said, students who did the individual evaluation raised queries as to how absent students should be assessed. Interestingly, students also expressed surprise at having to evaluate themselves.

Strategy 2, where the team discussed their own strengths and weaknesses, appeared to be most effective, and there was a sense of the teams pulling together to provide an account for themselves.

Strategies 3 and 4 allowed teams to evaluate other teams. Enabled by a software to support TBL, strategy 3 occurred at the "simultaneous reveal" stage of the application exercises. I found that students were interested to see other teams' answers during class, just as they were to watch and evaluate the other teams' final presentations in week 8. There was great excitement - and often indignation! - when they saw what their peers thought about them and their work.

Overall, students engaged well with all five strategies. Peer evaluation generates discussion about what assessment criteria mean, how to apply them fairly and how to deal with grey areas. Having to apply evaluation criteria to their peers' and justify their evaluations generated significantly more discussion than I had anticipated or even allowed time for - a point I will note in planning lessons next time.



# SECTION

two

**Innovative  
Assessment  
For  
Engaged  
Learning**

## Summary of Teaching & Learning Context

BA (Hons) Social Care Work -Year 3, Module: Social Policy (Group size -20)

## Overview of the Assessment Strategy

The assessment strategy contains two parts:

Summative - Students are asked to select an individual who has been inspirational in acting for social justice and conduct life history research on them. They must write 2,000-word review in response to the following prompts:

- Introduce the life history; explain why this person was selected; what is the significance in relation to social policy, social justice and social change?
- How was the persons life shaped by social policy? Think about issues such as class, race, gender, sexual orientation, the socio political and historical context.
- How did this person in turn shape progressive social policy for justice and change? Think about their contribution to service provision, campaigning, advocacy, changing policy or legislation.
- What have you learned from this life history research? Think about the role of social policy in your own life story and reflect on the impact one person can make for social justice and change.

Formative - Additionally students are asked to engage with each other in tutorial class time to share the life histories they chose, explain what they learned and the impact it may have on their own life stories while linking this to the role of social policy. Tutorial discussion around student contribution is facilitated to draw out deeper connections across the life stories and making connections to lecture content.

## Rationale for why you use this assessment

Social policy is traditionally taught and read as a conceptual and theoretical subject. Traditional assessment for social policy is an academic essay. I wanted to use a more innovate assessment strategy that would encourage students to engage with social policy as a real-world issue. The use of life history offers an interesting and creative way to engage students with social policy and motivate them to develop a personal practice ideology around social change and the political potential of their practice.

## Perceived impact on student engagement and their learning

The assessment strategy engages students in multiple ways including enhancing learner connections with:

- choice and voice' in both the selection of the person they wish to study as well as an opportunity to express visions for social justice and change in areas they are passionate about. The assessment provides opportunity to celebrate difference and diversity.

- understanding their own biography, the socio – political context of their lives and professional practice and anticipating the possibility that they too can help work for broader social justice and social change that 'another world is possible'. This connects with adult education theory that recognises the importance of students life experiences.
- better understanding social policy and its application to our everyday lives as well as how we can influence it.

## Summary of assessment rubric being used to assess student work

Assessment Criteria	Weighting
Choice and suitability of the selected life history	10%
Analysis of the influence of social policy on life history	30%
Analysis of the influence of personal ideology and activism in changing social policy	30%
Personal reflection on assessment learning and the intersections between life history, social policy and social change	20%
Academic writing – spelling, grammar, sentence construction, referencing, structure and flow	10%

## Method of student feedback and rationale

The student receives a feedback sheet with marks as well as comments for each section of the marking criteria. Written comments are provided through out the assignment script using the Moodle feedback facility. Further verbal feedback and debriefing happens through in class tutorial discussions.

## Any challenges experienced and any advice for overcoming them?

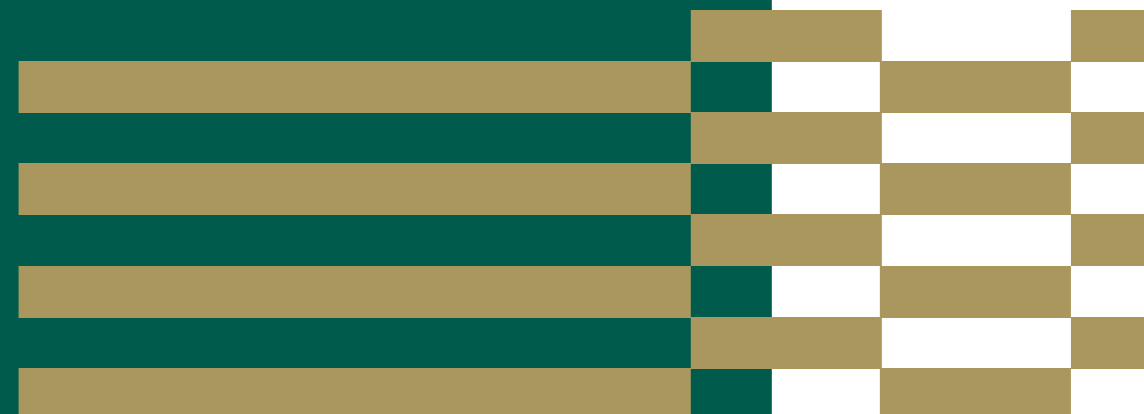
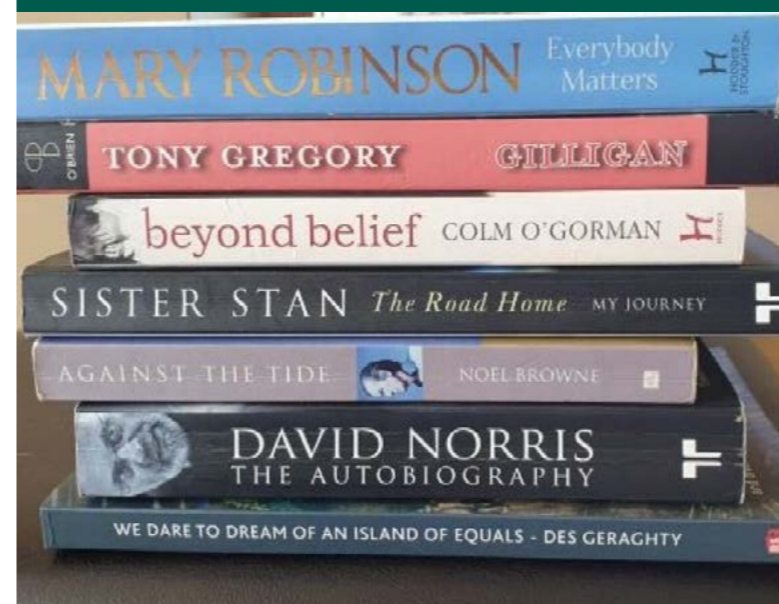
There are no serious challenges for students or staff in this type of assessment. Students can need a little bit of scaffolding initially in the selection of a suitable life history. Students should be encouraged to join their local public library to access suitable memoirs, biographies or autobiographies.

## Relevant Resources

Hoar, M. et al (1994). Life Histories and Learning - Language, the Self and Education, Centre for Continuing Education: Sussex, Available at: <https://eric.ed.gov/?id=ED377356>

Lewis, D. (2008). Using Life Histories in Social Policy Research, Journal of Social Policy, Volume 37, Issue 4, pp. 559 – 578. DOI: <https://doi.org/10.1017/S0047279408002213>

Sharma, D and Barron, A. (ND) Methods for Change: Life Histories, Manchester University, <http://aspect.ac.uk/wp-content/uploads/2021/05/3.-Lif-his-Divya-Sharma-A4-Guide-3.pdf>



# 23

## Best Practice Identification In A Relevant Industry

Jim Gilchrist & Declan Doran

Department of Lifelong Learning, TUS Midlands

Full Title - Best practice identification in a relevant industry and its application to the workplace

### Overview of the Assessment Strategy

This assessment is used on a number of Postgraduate programmes in the Department of Lifelong Learning in TUS Midlands campus as part of the programme capstone module. The assessment consists of two components and involves presenting skills and peer review and work-based learning in component two.

In component 1, learners identify a best practice or gold standard organisational / departmental system/ S.O.P or design / workflow in their domain. They are then asked to justify their rationale for the method selected, giving examples of its use, efficiencies and some of the key industry companies who use it. This comes in the form of an essay of 600-900 words.

In Component 2, learners are asked to map out the current system they use in their own organisation regarding what corresponds to the gold standard they identified in Component.

They then identify gaps that exist / or areas for improvement in their system based on what they have identified as best practice/ gold standard for the industry. Following this they are asked to make recommendations for improvement to this system.

Next, they must compose and deliver a 5 min presentation (with 5 minutes of questions after) of their proposal to improve their current system and bridge the gap between how their company operates now and how to get it to the gold standard for the industry. This can be attended by their senior management /board of directors, lecturer and two of their class peers X 2.

Following on from the presentation, they must collect feedback from their colleagues/supervisors and peers, and compose a summary of their comments and feedback as part of component 2

The final part of component 2 is to critically evaluate the discussion and recommendations and submit the final improvement proposal in order of priority, validating why they are so, and identifying any potential challenges for implementation of their idea into their workplace that need to be considered.

### Rationale for using this assessment strategy

This type of assessment encompasses a number of key learning methodologies:

Component 1 allows learners to use skills in research methodology, academic writing and critical thinking.

Component 2 highlights the importance of work-based learning. It also allows learners to use skills like active listening, peer review and peer assessment, giving and receiving feedback and of course presentation skills.

It involves researching the industry they are in, thus broadening their knowledge base. Sponsors from work attend the presentation, reinforcing the relevance of what they are doing. It brings together all learning outcomes of the programme modules.

Identify best practice or gold standard in your professional domain

Map out the current system in your professional domain in relation to the company you work for

Identify gaps that exist / or areas for improvement in your workplace using what you have identified as best practice as a guide. Make recommendations for improvement

Develop and deliver a 5 min presentation of your proposal for senior management (sponsor) / board of directors, lecturer and peers x 2 (there will be 5 minutes of questions also)

Stress test your recommendations with a colleague/ supervisor and two peers. Compose a summary of their comments and feedback

Critically evaluate the discussion and recommendations and present your final list of recommendations in order of priority, validating why they are so and identifying potential challenges for implementation that need to be considered



## Summary of Teaching Context

For the continuous assessment element of my courses, I use Moodle quizzes but to help students revise and practise the mathematical methodologies I have created Numbas quizzes.

## Overview of the Strategy

'Numbas' is a free to use online assessment system developed by mathematicians at Newcastle University. In Moodle the "calculated question" allows you to generate a bank of questions testing the same methodology by inserting variables within the question design. This allows for randomised questions being offered to the students. The only drawback is that it can only accept a single response for each question. Numbas allows you to design questions using variables within the question text but can also allow for several questions/answers to be posed within the one question. The answers can be numerical or algebraic. Furthermore, it allows you to code in the general solution to the problem using variables which automatically change as the numbers change with each randomly generated version. This allows students to compare their worked solution to the "model solution" and pinpoint where they are going wrong. In this way it becomes a teaching and learning tool.

Once I complete a topic in class, I open the Numbas quizzes and for students to practice the methodologies as often as they wish.

## Observations /Reflections

Student engagement is often related to the relative weight of the activity within the allocation of continuous assessment marks. I present the Numbas quizzes to the students as a voluntary activity. I have noticed that roughly 50% of my third-year students engage with these quizzes during the semester, normally in the week before a continuous assessment is due. Feedback from these students has been positive.

The quizzes can be created in Numbas and then exported to Moodle as a SCORM.

The main obstacle in implementing this as a strategy is the steep learning curve involved in writing questions using the software. A previous knowledge of LaTeX is helpful. However, users of the system are encouraged to share their questions and allow them to be freely used, copied or altered by others. So for the beginner there should be an ample selection to begin with.

## Resources

<https://www.numbas.org.uk/>

Below is an example of a question from queueing theory, where the student inputs multiple answers

A hotel telephone exchange employs one operator to connect incoming and outgoing calls. Calls arrive at a mean rate of 17 calls per minute. The mean service rate is 21 calls per minute.

Calculate the percentage probability that the operator is busy.

Calculate the probability that there are no calls queueing for services.

Calculate the probability that there are at least 2 calls in the queue.

Calculate the mean time (minutes) a customer will have to wait for service

Submit answer 4 marks. Try another question like this one Reveal answers

When the student clicks on the button "Reveal answers" they see the correct answers followed by the worked solution.

## Advice

$$\lambda = 17 \text{ and } \mu = 21$$

$$P(\text{operator is busy}) = 1 - P(\text{no calls in the system})$$

$$= 1 - P_0$$

$$= 1 - \frac{\lambda}{\mu}$$

$$= 1 - 0.1904761905$$

$$\text{Percentage probability} = 0.8095238095 * 100\%$$

$$= 80.9523809524\%$$

$$P(\text{No calls in queue}) = P(0 \text{ calls in system OR } 1 \text{ call in the system})$$

$$= P_0 + P_1$$

$$= 0.1904761905 + 0.1541950113$$

$$P(\text{at least } n \text{ calls in queue}) = P(\text{at least } n+1 \text{ calls in the system})$$

$$= 1 - P(\text{less than } n+1 \text{ calls in the system})$$

$$= 1 - \{P_0 + P_1 + \dots + P_n\}$$

$$\text{The mean time a customer will wait for service} = W_q = \frac{\lambda}{\mu(\mu - \lambda)}$$

Submit answer Unanswered. Try another question like this one

## Summary of Teaching & Learning Context

I teach an online Research Methods module to approximately 35 Level 9 postgraduate students on the PG Diploma in Financial Management and the PG Diploma in Quality Management and Validation.

Student engagement can be difficult in the online teaching and learning environment, especially within larger groups. Often, within the group there are students who prefer not to have their camera or microphone on, so the challenge for me teaching online is to ensure that these students are still actively participating in the activities. Because some of the concepts I teach in this module can be difficult for students to understand, I wanted to use a formative assessment tool that would allow students to respond to questions anonymously, which had the double advantage of allowing them the opportunity to engage with the material and providing me with an insight into their understanding of the concepts. I use Vevox primarily to:

- Find out what students know about a topic before I begin the class (background probe)
- Gauge understanding of a topic that I've covered, especially muddy points in a module.

## Implementing the Strategy

Vevox is a classroom response / live polling system, which can be used in the traditional classroom setting or shared via the live online classroom platform, e.g., Zoom, MS Teams. Once you're logged in on <https://vevox.com>, you can create a session and start to build your questions. I use Text, Multiple Choice, Word Cloud (students' entries are displayed as a word cloud, and the size of the word relates to the frequency within student answers) and Rating questions. There are other question types, such as Numeric, X, Y plot and Pin on Image (each question type has a description, so you can find out what it does).

When the questions are set up, the lecturer can share the session ID with students. This also comes in the form of a barcode which students can scan. Students can input their answers, while the lecturer see the number of students in the top right corner. The results of the poll can then be shared on screen.

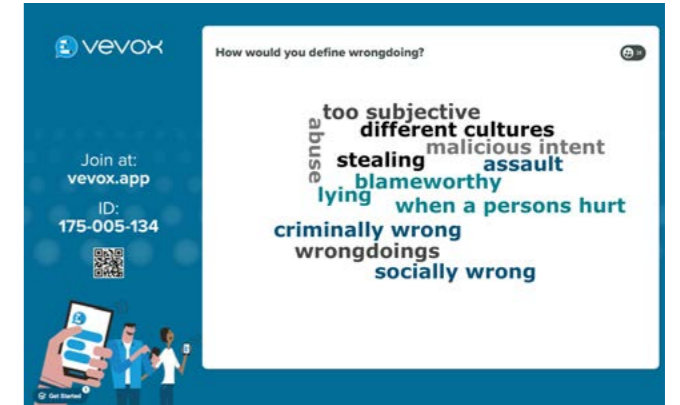


Figure 1: Screenshot of word cloud question

## Observations/Reflections

Students are more inclined to provide an answer because it is anonymous. The fact that the lecturer can see how many students are answering means that he/she can encourage those who are still hesitant to input their answer. Students also find it very useful to see the answers from the group and it provides a good source of material for discussion.

The lecturer can access a report for each session, to see what the participation rate was and how the students answered the questions. This is very useful in terms of identifying areas for clarification and follow up. Finally, the lecturer can also export and import questions for re-use and sharing, as all created polls are available on the dashboard.

**Summary of Teaching Context**

Poster presentations have many advantages for novice presenters (as with this first-year cohort) who may find developing poster content less intimidating than writing a report (Berg and Hicks, 2017; 461). The poster presentation (See Appendix 1) was selected for the Travel Operations and Geography module (on the B.A. Hons. in Business Studies with Travel and Tourism Management programme) and it reflects a very appropriate assessment tool to meet the overall aim of this module which is to introduce an array of established and emerging destinations to the student through theoretical and practical applications. It will also provide students with an in-depth insight into contemporary transport management in the global travel industry. The reason for using the poster presentation is that the author is following the key procedures of assessment design namely trying to put her teaching and learning into a visual content and its proposed assessment strategy aligns with the best practice principles of assessment which are clear to what is being assessed, work is consistently marked to the same standard, the procedure are relatively easy to administer, it has positive effect on learning and teaching and it's something that students would use within the travel and tourism industry.

**Implementing the strategy**

As seen in Appendix 1, student received a copy of the Poster Presentation Marking Sheet along with the Assessment Guidelines (See Appendix 2) consequently this directed students to key areas of the assessment. After the poster presentation students were given individual feedback on their both their actual poster and presentation while considering the four principles of feedback; Accessible (directing students how to improve), Timely (allowing students time to reflect before their next assessment), dialogue (allows students to give each other feedback during the poster presentation and self-evaluation (trying to assist the student in improving their self-evaluation skills). In all of my years of lecturing, I have never really faced any issues or challenges when giving feedback as I always give it in an informative, supportive and constructive manner and I always allow the students a chance to ask me questions which I can assist them and hopefully improve their confidence.

**Your observations/reflections**

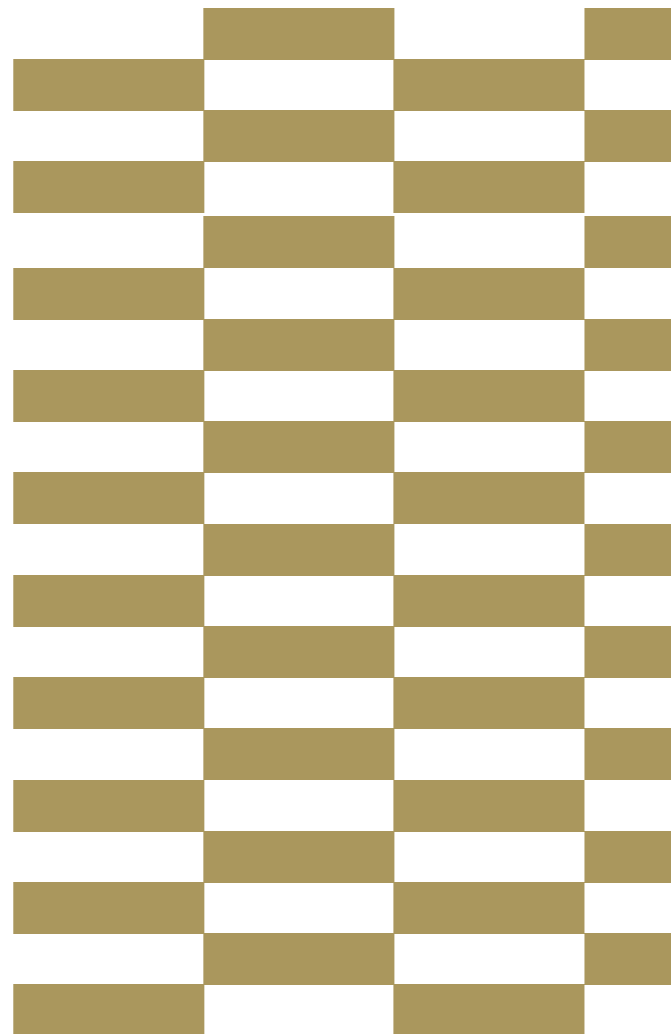
Taking this into consideration and also the fact that this was a first-year cohort I was very aware that the students were unsure about designing and presenting a poster as it was something that they have not undertaken before. I always find that if I consistently encourage the students and answer their questions in a warm, friendly and professional manner in each of our classes, they tend to develop confidence, knowledge and enthusiasm for both this module and its assessment.

**Any recommendations resources**

Please see [Appendix 1](#)

**Visual associated with activity**

Please see [Appendix 2](#)



**APPENDIX 1**  
**CONTINUOUS ASSESSMENT**  
**TRAVEL OPERATIONS AND GEOGRAPHY**

**Assessment Brief**

This is an individual written piece of work and it will examine;

1. An introduction to the travel element of the global tourism industry.
2. The advantages and the disadvantages of the four (4) main travel modes (road, rail, sea, and air).
3. Future trends in relation to the ever-changing global travel industry.

During the poster presentation, you will be expected to discuss your poster content with your class for approximately 5 minutes. It is your chance to demonstrate your knowledge and understanding of the global transport industry. You are required to compare your viewpoint to academic textbooks, journal articles and other sources of research and examples available in this area.

**Submission Details**

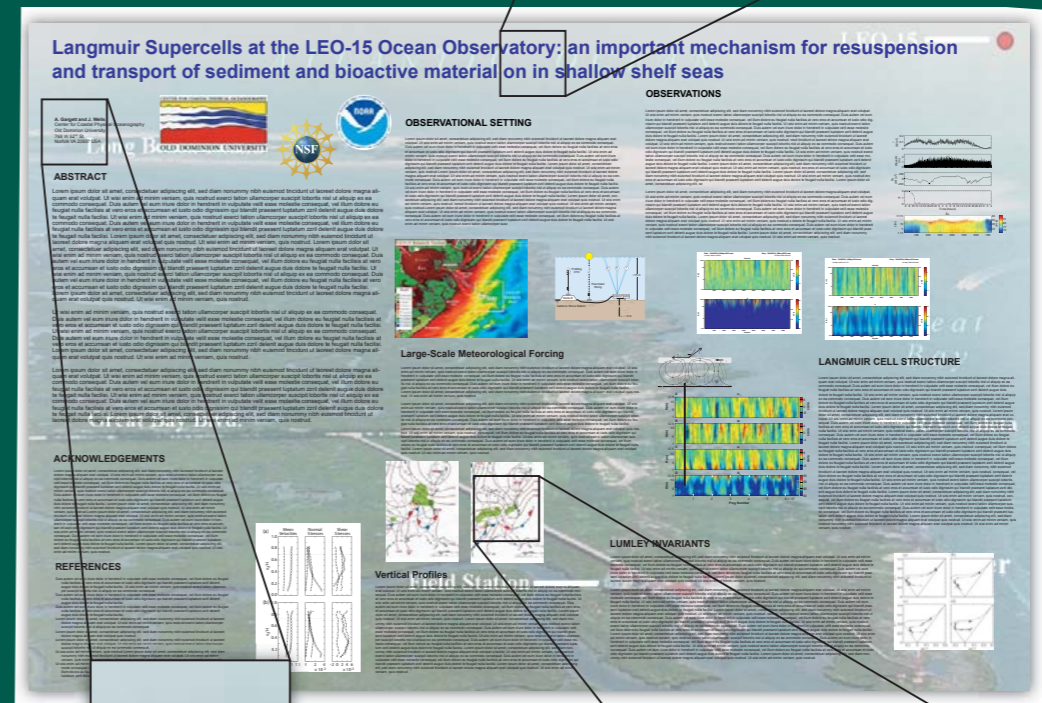
The poster should be submitted on Tuesday, November 9th, 2021. You must also complete and sign an official plagiarism disclaimer form which is available on Moodle. The Assessment 1 Poster Presentations will take place in your lecture on Tuesday, 9th November 2021. The posters on the following pages will give you an idea of how you might design your poster;

**EXAMPLE OF A "BAD" POSTER**

This poster was designed to be 6 feet wide by 4 feet high. Unfortunately, there is simply too much content. The results are text and graphics set too small to be easily legible. The background photo makes it even harder to read. Unnecessary logos add to the visual confusion.

**atory:  
on in s**

- Poster title is too long
- Type is too small
- Was not carefully proof-read (see error in title)



**A. Gargett and J. Wells**  
 Center for Coastal Physics  
 Old Dominion University  
 768 W 52nd St.  
 Norfolk VA 23507 USA

- Author names are too small
- First names should be given
- The full address is not necessary
- Email address should be given for contact info



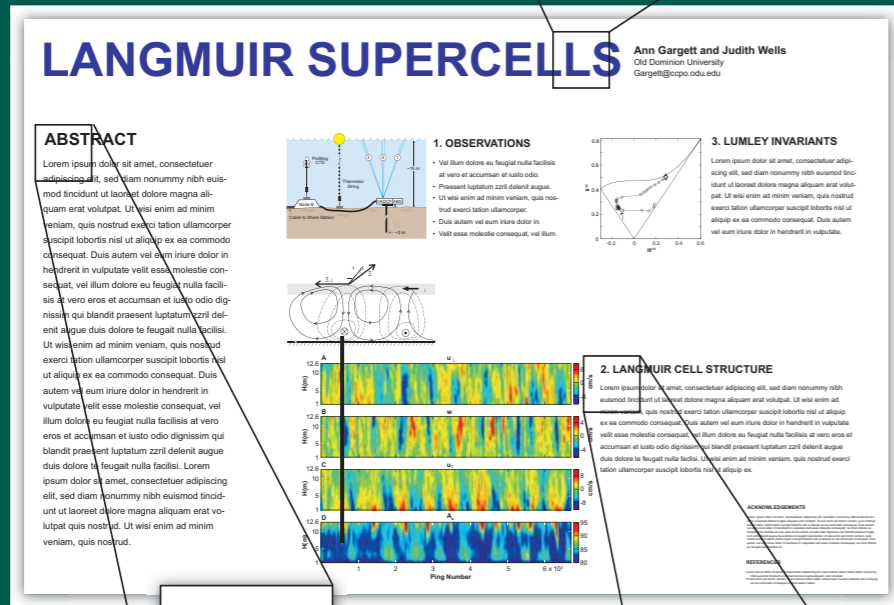
A poor - quality or low-resolution graphic makes the poster unprofessional

### EXAMPLE OF A "GOOD" POSTER

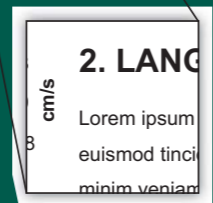
This poster was designed to be 6 feet wide by 4 feet high. Title and text are deliberately kept to a minimum and the type is sized for easy reading. The flow of content is left to right. Acknowledgements and references are single spaced and concise.



- Poster title is 280 pts (almost 4 inches tall)
- White background provides good contrast



- Title is 100pts
- Text is 55 pts, double-spaced



- Title is 65pts
- Text is 40 pts, double-spaced

### Overall Marking Grade

#### 70-100%

Extremely well presented and well researched poster. Demonstrates both professionalism and creativity. Clear to see that significant preparation has taken place. Enthusiasm is clear to see in the presentation (Reinforcing the professional approach). Demonstrates a mature understanding of the subject area and can analyse and build upon ideas and suggestions. Shows a wider knowledge and the ability to discuss comfortably beyond the immediate topic. Demonstrate you can discuss knowledgeably about a comparable location (i.e. one other than your poster location).

#### 60-69%

Presentation of a very good standard. Professionalism and creativity are clearly apparent. The presentation projects the appropriate professionalism at undergraduate level 6 standard. Enthusiasm included but less visible. Minor issues with content and justification of ideas. Demonstrates a good overall understanding of the subject area with knowledge beyond the immediate topic.

#### 50-59%

Demonstrates knowledge and understanding of the information covered in the module. The level of information is presented to a good standard but is restricted to the immediate topic. Some issues with either the content or mode of presentation. Enthusiasm less pronounced. Wider knowledge not demonstrated i.e. if asked about transportation issues you are unable to discuss with any confidence.

#### 40-49%

Presentation completed to a satisfactory level using fewer examples or lacking in detail/depth. Little linkage between theory and the case study used. Participation lacks verve. Cannot discuss the subject with any confidence.

#### 35-39%

No material / concepts discussed effectively. Visibly clear that preparation is lacking and should have been undertaken. Little evidence of research having been done. Style and content have significant issues. Examples might be posters with illegible text, poor spelling, and maps/images of poor quality. Note: participants not attending the presentation without prior notification will lose 25/55 marks available unless a Medical Certificate can be provided.

## APPENDIX 2

### POSTER PRESENTATION MARKING SHEET (RUBRIC) TRAVEL OPERATIONS AND GEOGRAPHY

<b>Student Name:</b> <b>Student K number:</b> <b>Programme and Year:</b>	Travel and Tourism 1
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Presentation Criteria	Un - acceptable	Poor	Average	Good	V Good	Excellent
Verbal and non-verbal (eye contact, enthusiasm, engagement of audience, tone of voice, does not rely on reading from script, is comfortable with this mode of presentation)	0	1	2	3	4	5
Design, layout and visual appeal	0	1	2	3	4	5
Effective use of poster as a presentation	0	1	2	3	4	5
Overall professionalism of presentation of poster	0	1	2	3	4	5
Able to answer questions - arising from presentation	0	1	2	3	4	5
<b>Total (Out of 25 marks)</b>						

<b>Comments</b>
1.
2.
3.

Poster Criteria	Un - acceptable	Poor	Average	Good	V Good	Excellent
Introduction to Transport	0	1	2	3	4	5
Road	0	1	2	3	4	5
Rail	0	1	2	3	4	5
Sea	0	1	2	3	4	5
Air	0	1	2	3	4	5
Future transport trends	0	1	2	3	4	5
<b>Total (Out of 30 marks)</b>						

<b>Comments</b>
1.
2.
3.

<b>Assessment total (55 marks)</b>						
<b>Overall grade (100%)</b>						

#### References

Berg, J. and Hicks, R. (2017). Successful design and delivery of a professional poster, *Journal of the American Association of Nurse Practitioners*



# 27 Individual Presentation Using Problem Based Learning

Ashling Sheehan Boyle Department of Sport & Early Childhood,  
TUS Midwest Thurles

B.A (Hons) Early Years Education and Care Level 8 (Flexible Learning)

Module – Music Movement and Maths (15 students)

*Full title - Individual Presentation using A Problem Based Learning approach: When learning outcomes extend beyond the virtual classroom*

### Summary of Teaching & Learning Context

The content is delivered through online synchronous and asynchronous delivery. On campus delivery was restricted due to Covid 19. Students are working in the sector of early years education and care they are encouraged to reflect and evaluate their professional experience.

The module is very much focusing on specific areas of practice within the context of early years education and care settings. The following key documents underpin the content Siolta National Quality Standards, Aistear National Curriculum Framework and Tusla Quality and Regulatory Framework. The assessment strategy was to give students the opportunity to explore theory and practice in a meaningful context. The assignment, particularly Section 2 mirrored a very real life professional practice experience.

Using a Problem Based Learning (PBL) approach afforded students the chance to identify a problem in promoting one or all of the topics movement, maths and music in their daily practice, develop a solution and reflect on the impact of the solution.

Presentations were delivered in small groups on Microsoft Teams using the principles of Wagner and Traynor model of Communities of Practice which is embedded throughout the programme delivery. Collaborative learning and peer reflection are critical aspects of quality development within early years education and care settings.

Small groups allowed for critical discussion, reflection and evaluation. Firstly the most significant outcome was how students used reflective models such as Kolb 1984 and Gibbs 1988. Secondly the impact the projects had on the children they were working with was positive. Many of the students had sustained the changes they had identified in consultation with their colleagues. For instance changing structure of daily routines, using learning environments more creatively, incorporating more games which encourage social interaction and critical thinking through play.

Students were provided with an assignment brief and rubric.

Portfolio Structure:

Section 1 (60 marks) 3 portfolio entries looking at individual topics music, movement and maths .

Section 2 (40 marks)

(a) Presentation Identify an challenge in delivering one or all: music, movement and maths

(b) Online Discussion forums

Students provided very interesting peer to peer feedback throughout the session. I also provided oral feedback during the presentation and written feedback based on rubric.

In future delivery I would hope that presentations could be carried out face to face and this would enhance the richness of discussion and reflection, particularly in fusing theory and practice.

### References:

<https://wenger-trayner.com/introduction-to-communities-of-practice/>

Elaine H.J. Yew, Karen Goh (2016). Problem-Based Learning: An Overview of its Process and Impact on Learning, Health Professions Education, Volume 2, Issue 2, Pages 75-79, ISSN 2452-3011 <https://doi.org/10.1016/j.hpe.2016.01.004>



# 28 Supporting Active Learning Design Through Mobile Technology Kits

Mark O'Connor  
Dept of Quality, Teaching and Learning - TUS Midwest

Full Title: Supporting creative active learning design for academics through mobile Technology Kits.

## Summary of Teaching & Learning Context

Tablet devices foster the creation of asynchronous online content with enhanced production values of superior sound, video, lighting, positioning and resolution. They also provide a gateway to the world of app technologies. These enhance the learning experience for all students and empower academics to broaden their use of technologies in their learning and teaching design. The TUS Technology Kits, funded by SATLE 2, provide scope for TUS academics to achieve this.

Prior work at Australian Universities (UTS, WSU) saw uses of iPad packs offering mobile technology capabilities to academics with resulting content creating enhanced engagement from students. Interactions between learning designers and academics saw increased output of self-created content by academics. Faculties including, health, sport science, arts, social sciences and engineering benefitted. It was also a way to connect to academics across different campuses, not unlike the geographical spread of TUS.

## Implementing the Strategy

Based on prior work, this idea was approved for SATLE 2 Funding and purchases were undertaken in mid 2020 linking in with the Computer Services and Finance departments. The purchases included:

## Proposed purchases

Item / Hyperlink	Function
Tablet device – for discussion, type, spec – <a href="#">iPad / Android tablet</a>	Mobile, portable, multifunctional devices with access to App Store/Google Play Store world of education Apps.
<a href="#">Bluetooth adapter</a>	To allow connectivity with standard TUS PCs
<a href="#">Rode Wireless Go II</a>	2 excellent clip-on mics with up to 200m range
<a href="#">Sennheiser HD350BT</a> Bluetooth Headphones	For audio monitoring and playback
<a href="#">Tablet Mount and Stand</a>	A robust stand that allows the tablet to be mounted and positioned.
<a href="#">Lightweight Bag</a>	Attractive and comfortable bag capable of storing kit pieces and more including books, writing pads or laptop.

Tablets chosen – Samsung Galaxy Tab S6 Lite 64GB

iPad Air 4th generation



## Subsequent purchases included:

Paperlike screen protectors – enhanced use of the pen with tablet with screen feeling like paper

[Gel protectors](#) – for use of the tablet when not on the stand, gel protectors protect against any fall.

[Ukulele cases](#) – for safety and a bit of fun, ukulele cases were purchased to carry the tablet stand by hand rather than in the back pack.

Practical advice – Start small, begin with pilot projects and build from there. Slowly grow your relationship with academics and on campuses. The initial consultation between technologist and academic on using the kit empowers the academic to confidently use the technology. Subsequent follow up for sharing files via OneDrive, editing videos and discussing work done is essential.



## Observations/Reflections

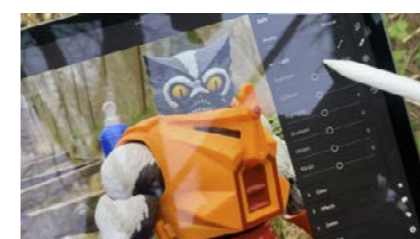
- Ken Coleman, TUS Midwest LSAD Clare St / Clonmel – “As digital artist, this mobile technology kit is a game changer. Now I can work in the field with my SLR camera, Bluetooth my photos over to the iPad and edit them there and then.”
- Kevin Healion, TUS Midwest Thurles – “I was very impressed with the sound quality.”
- June O’Byrne Prior, TUS Midwest Moylish – “Capturing the visit of Adare Manor’s sommelier for our Event Management class will be a powerful asynchronous resource to use in the future.”

## Examples from Tech Kits used at TUS

1. [Ken Coleman field recording](#) – use of Procreate app in situ to edit photos en plein air

2. [Kevin Healion field recording](#) – Hedgerows discussion asynchronous resource

3. June Prior O’Byrne – [Adare sommelier visit to Event Management course – Timelapse video](#)



## Next Projects

Maria A Walsh, TUS Midwest Clonmel – Digital Arts & Media; Michael Fennelly, TUS Midwest Thurles – Strength & Conditioning; James Griffin, TUS Midwest Moylish – Marketing, Enterprise & Digital Communications.

While working with academics spread out across different campuses is a challenge, after an initial meeting, following up with them online via email/Teams calls ensures good engagement and take up. It also develops and supports the community of practice activities between the Learning and Teaching team and TUS academics. A [Staff Training day](#) session was held in February 2022 also.

## Recommended Resources

Recommended sites for equipment purchases – [www.thomann.de](#), [www.amazon.com](#)  
Article by Ken Coleman [harness an Adobe Cloud to Procreate workflow with Ken Coleman](#)

## References

[Supporting Technology-enhanced Teaching Practices for Health Academics](#) – Mark O’Connor – 9th International Conference on Computer Supported Education, 2017.

[The UWS MiHub – A Blended Learning Media Content Creative Space](#) – Mark O’Connor – Future of Education Conference, 2014.

### Introduction

This submission is a reflection on the experience of applying a Problem Based Learning Approach to completing a 4th Year Final Year Project (FYP). This piece begins with a brief description of the PBL process and then a reflection on the experience and identification of lessons for the future.

### Outline of the Project

In September 2021, the 4TH Year students of the Early Childhood Education and Care (ECEC) Programme in TUS Mid West (Thurles) set out on the journey of completing their FYP using a Problem Based (PBL) approach. PBL is a process of interest to educators 'because of its emphasis on active, transferable learning and its potential for motivating students. (Hmelo-Silver, 2004). The project was supported by two modules one in semester 1 and the second in semester 2. This Module required that

*"As a final year capstone module students educated in early childhood education will have to address research skills and carry out some form of practice-based research. To provide students with the opportunity to complete this research... and approach the process in a creative and innovative manner, this module will take place over the entire academic year and be allocated 10 credits. Students will have to engage with a number of Problem Based Learning (PBL) type activities and carry out a small piece of related Action Research (AR) followed by a submission of a short project/thesis/floor book outlining their work, analysis and findings..."*

### Research Process

The process began with an identification of a significant issue faced by practitioners in the ECCE sector. The outcome of this consideration was the identification of the research topic exploring the issue of the **Pay Crisis in the Early Years**. In Semester 1, students explored the issues related to pay and using a 'problem tree' methodology (<https://mspguide.org/2022/03/18/problem-tree/>) to identify the overall structure of the research. (Doyle 2008)

In undertaking an analysis of this problem, the group identified a number of causes and effects connected to the problem. In addition they also identified various context and background issues. This analysis was informed by the students experience but also through the interviews with 'key informants' working in the sector.

Each student was allocated a topic (cause, effect or background) and was tasked with conducting a literature search and writing a chapter related to the topic on hand. This chapter was 6-7,000 words in length (70% of the module marks). The sum of all students work was collected into the production of a single book (212 pages) as the final outcome of the project.

In addition to the core work of producing their own chapter, each student took responsibility for an additional piece of work (30%) connected with the goal of 'launching' the book and sharing the outcome of the research with peers and the public. This additional work related to team tasks including: proof reading, writing a summary piece for the document, issuing of invites, preparing the launch and preparing associated graphics.

The outcome of all this research and exploration of the topic was a launch of the book with an invited audience and the sharing of the summary learning for the project with key stakeholders in the sector.

### Reflection:

Hmelo-Smith (2004) identified the following outcomes for a PBL process and these help to structure this reflection.

1. construct an extensive and flexible knowledge base
2. develop effective problem-solving skills
3. develop self-directed, lifelong learning skills
4. become effective collaborators; and
5. become intrinsically motivated to learn

In this project the students' knowledge base was expanded through being required to adopt a number of different perspectives on the issue. Instead of just seeing the 'problem' from their own perspective, they were required to understand the problem from the perspective of the employer and the regulators. They were also expected to be able to situate the problem within current policy and legislative context. This is one of the strengths of PBL which "...is well suited to helping students become active learners because it situates learning in real-world problems and makes students responsible for their learning." (Hmelo-Silver, 2004)

One of the strengths of the FYP is that it requires students to develop their own project management capacity and skills and in this project, students were asked to do this from a team perspective. The challenge was not simply to prepare their own chapter but to co-ordinate and share knowledge with others to ensure the coherence of the final project. It should be noted that the work of the group happened primarily in class time as there was no additional supervision hours attached to this module. Students were apprehensive about this project at the outset but the process of scaffolding the module with incremental deadlines contributed to effective group collaboration. Consequently, the students held each other collectively responsible and were motivated to achieve the goals set out.

PBL takes a constructivist perspective on learning and from a teaching perspective, it is necessary to support and hold the students at certain pressure points in the project. There is uncertainty but setting an expectation of a positive outcome and standard is effective in encouraging collaboration and motivation.

The scaffolding of the process is important. During this year-long process, students submitted their proposal before Christmas and shared in setting the milestone dates for the 2nd Semester. There were also two presentations where students shared their work content and reading lists and in the second ensured that there was no overlap. The standard format for presenting and writing was agreed together in the team and this led to consistency of product in the end. This enabled participants to develop their collaboration skills and capacity.

The inclusion of a 'launch' meant that the deadline for submission of the work was early and in the future, consideration will be given to beginning the writing process earlier and therefore allowing more time for formative feedback as the students work towards completion.

The overall experience of the process was very positive, students rose to the challenge presented and the outcome was very impressive.

### References

Doyle, T. (2008) *Helping Students Learn in a Learner-Centered Environment: A Guide to Facilitating Learning in Higher Education*. Sterling, Va: Stylus Publishing.

Hmelo-Silver, C. E. (2004) 'Problem-Based Learning: What and How Do Students Learn?', *Educational Psychology Review*, 16(3), pp. 235-266.  
<https://link.springer.com/article/10.1023/B:EDPR.0000034022.16470.f3>

Wageningen University & Research:  
<https://mspguide.org/2022/03/18/problem-tree/>

**Summary of Teaching & Learning Context**

The assessment is a group presentation for business students studying financial services modules. The assessment is designed to be examine the students across Year 1 to Year 3 in subjects such as Savings and Investments and Pensions.

**Overview of the Assessment Strategy**

The assessment is a presentation on a problem-based scenario designed to examine learning outcomes of the selected modules. As part of the assessment students will be required to demonstrate their ability to apply key theoretical knowledge to real life scenarios.

The assessment strategy was designed to enable students to develop enhanced communication skills by presenting on core components of the module through a professional medium. The assessment can be tailored to the learning outcomes of the module and year of study which provides flexibility to ensure the students are being assessed at the appropriate level. In addition, the assessment is designed to provide the connection from the educational setting to industry and practice.

Given the practical scenario is designed to develop the students critical thinking through active learning it will assist with preparing students for work placement where they potentially will be dealing with similar issues.

The presentation was selected to encourage the students to succinctly advise in a concise coherent manner which is attractive for prospective employers and dealing with clients. Groups will also develop organisational skills contributing to their professional development.

The presentation which is 10-15 mins duration where all members of the group are required to present. The presentation is based on a problem-based scenario issued in advance to the students. The presentation must include their proposed solution to the problem including identifying key issues, theory & practice and recommendations.

The rubric is designed to be analytical but with a holistic element in the devised detailed criteria which the marks will be awarded upon. The combined approach will ensure that the marks awarded are fairly distributed. Areas will include; Issues; Theory – Frameworks, Legal position etc; Application-linking theory to the problem and Recommendations. Marks will be awarded for presentation are under areas such as: Visual Aids, Group Dynamic, Communication Technique and Clarity.

Students will be permitting to submit a draft working paper for review. The submission will be a LEAN one-page summary that outlines the key areas identified along with summary support which will form the basis for their final presentation. Feedback will be provided by the lecturer with the opportunity for questions/queries to be answered. Upon final assessment, feedback based on the grading rubric applied with key comments will be issued to all groups.

A challenge which may arise is the group itself, the dynamic of a group can contribute to the success or failure of this assessment. The group will need to openly communicate and be organised along with confident in their verbal communication skills when presenting. A clear assessment brief will be issued with in depth guidance to students which will be worked through on a weekly basis to address the challenges identified. In addition, a lecture series on group work, problem based learning and presentation skills will also form part of the programme to support the students needs.

**Relevant Resources**

**Websites**

<https://learnfromblogs.com/personal-and-professional-problem-solving>

**Journal**

*Graduate Scholars Leadership, Engagement and Development: Initial Design, Implementation and Lessons Learned*  
 Authors: Coffield, Julie A; Choi, Jasmine; Choi, Ikeson

*Journal of Higher Education Outreach and Engagement*, V25,n1, pa 65-86,2021.  
<https://files.eric.ed.gov/fulltext/EJ1300410.pdf>

**E-Books**

*Problem Solving: Strategies, Challenges and Outcomes*  
 Author: Newton, Karia  
 Hauppauge, New York: Nova 2016

*Accelerating Complex Problem- Solving Skills: Problem-Centred Training Design Methods*  
 Author: Raman K, Attri  
 Speed to Proficiency Research 2018

**PROBLEM BASED LEARNING**  
 Stage of Problem Based Learning



<https://www.sketchbubble.com/en/presentation-problem-based-learning.html>

## Title of assessment strategy

The Group Active Learning Strategy chosen for this assignment was group presentations through a student-led seminar (See Appendix 1) as Ryan (2021; 58), Plastow, Spiliotopoulou and Prior (2010; 402) suggest that group work and assessment is now a well-established pedagogical approach across disciplines in higher education. The lecturer used group presentations (student-led seminar) for this module (International Destination Management) on the B.A. (Honours) in Business Studies with Travel and Tourism Management programme which was designed to evaluate and critically assess the key issues which impacted the global travel and tourism industry. This was a 3rd Year module and there were 32 students in the group. The lecturer had the students for 6 hours per week in Semester 1(a 2-hour and 1-hour lecture and 3 x 1-hour tutorials).

## Summary of teaching and learning context

The lecturer chose the cognitive learning strategy as its main aim is to compare and contrast documented research and literature and the students are required to 'examine a destination and discuss the objectives of and overall approaches to destination planning in that destination' (See Appendix 1). The students were also requested to submit an individual reflection (See Appendix 1) of their preparation for the student-led seminar, during the actual seminar and to reflect on the process of working in a group.

## Overview of the assessment strategy

As per LIT and COVID 19 guidelines the International Destination Management module was solely delivered online thus the group presentations (student-led seminar) were delivered via the MS Teams platform.

This Continuous Assessment (CA) was worth 60% overall (Group presentation 40% and Individual Reflection 20%). The instructions for this assignment (See Appendix 1) were delivered in one of the tutorials (students also received these instructions via Moodle on the same day), 1-month prior to submission.

The marking sheets for both elements of the CA (See Appendix 1) were also shared with the students and the students were made aware of the separate submission dates for both CA elements. In preparation for the student-led seminar, the lecturer devised 11 breakout rooms in MS Teams to each group for our Monday mornings tutorials (four in total) as the focus of these was this 60% assignment. On arrival into the virtual classroom the students were allocated to their breakout rooms where they worked on their assignment and I moved between the rooms to answer any queries that they had.

This seemed to work very well as they students were eager to focus on this assignment even if only once a week. This assignment has shown how this Active Learning Strategy (Group presentations) have had a very positive impact on my teaching style and it really benefited my students as echoed in their Individual Reflections.

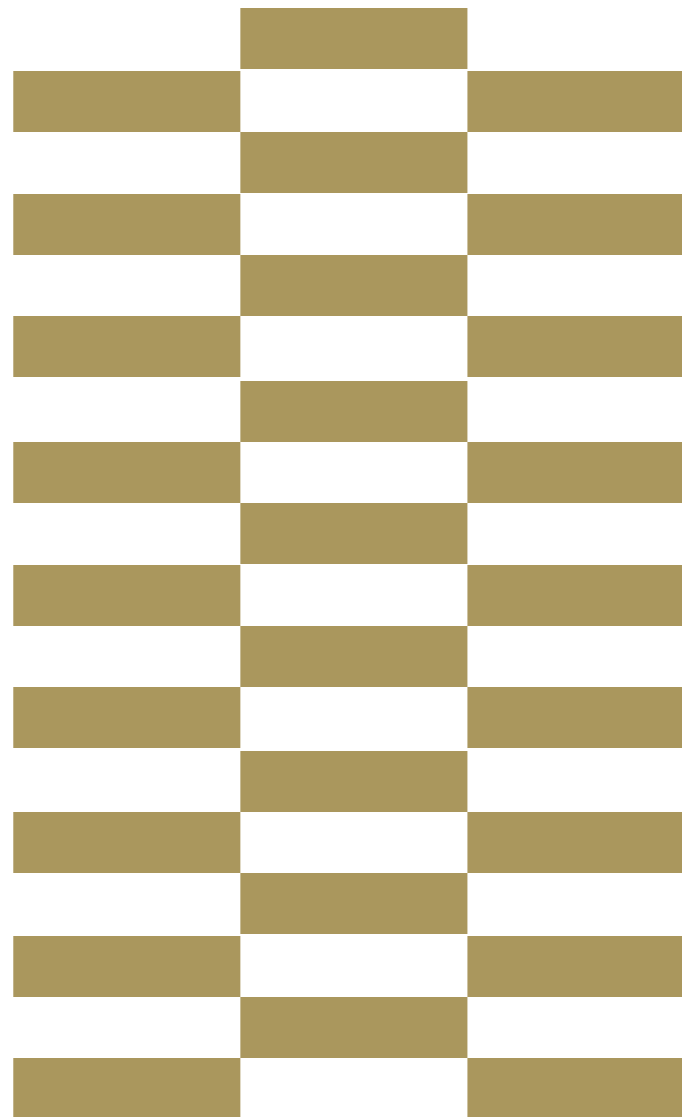
## Relevant resources

The development of a clear presentation brief is important (See Appendix 1)

## References

Plastow, N, Spiliotopoulou, G. and Prior, S. (2010): Group assessment at first year and final degree level: a comparative evaluation, *Innovations in Education and Teaching International*, 47:4, 393-403.

Ryan, M.F. (2021). [LIT Compendium of Active Learning Strategies for Student Engagement, LIT](#)



## APPENDIX 1 ASSIGNMENT GUIDELINES ASSESSMENT 1A: SEMINAR PRESENTATION (40% OF MODULE MARK)

Examine a destination and discuss the objectives of and overall approaches to destination planning in that destination. Consider, as far as possible, the extent to which planning has been successful regarding the integrated planning process, regeneration, and stakeholder involvement.

### Directions:

In small self-selected groups of 3 assume the role of destination plan assessors to undertake a critical analysis of an existing destination plan (at county, destination management organisation or tourist board level). In other words, assess the tourism planning approaches in effect for a specific tourist destination or the tourism planning efforts of a specific organisation.

- No two teams may cover the same area, so please decide on the location to be covered in your student led seminar and submit your idea (for approval) as soon as possible.
- You will work in groups of 3 to prepare a 45-minute student led seminar for the rest of the class.
- You should also allow 10 minutes for class discussion and a question and answer session at the end of your seminar.
- You may set the class reading(s) to be done before class if you wish but at least half of your seminar must involve the presentation of material.
- Your seminar should include, as far as is possible from the documents you can obtain access to;
  1. Identification of the features of the destination, including the key destination policy and planning challenges facing the area concerned, such as regeneration.
  2. Critical analysis of key economic, political, socio-cultural and environmental factors influencing the destination planning process concerned drawn from your own observations, information contained in publications and/or gathered from management and/or other staff involved in the tourism planning process for the area concerned;
  3. A brief discussion of the history of and background to the destination management plan concerned, including a discussion of the planning process which has been undertaken.
  4. Identification of stakeholders and discussion of their involvement in the planning process and influence on the final plan.
  5. A concise summary of the key elements of the destination management plan including its aims and objectives.
  6. Identification of marketing and customer service issues within the plan.
  7. Discussion of visitor management issues and their consideration within the plan;
  8. Critique of the approach to achieving the regeneration needs of the destination.
  9. Evaluate the monitoring and evaluation process for the destination plan and;
  10. Provide conclusions and recommendations drawn from your analysis of the destination planning process for the area concerned.

The presentation should include visual elements (e.g. PowerPoint slides, photographs, posters) although content is more significant. Presenters will be given a 'group mark', although the lecturer reserves the right to award different marks when there is a clear disparity in the quality of the contributions. You will need to submit any material presented via Moodle (Urkund) and/or any other visual aids used to make your presentation. Submit one Assignment Cover Sheet for each person and each needs to submit a copy of the assignment. A copy of your PowerPoint presentation must also be uploaded to Moodle.

### Assessment criteria for the seminar presentation

Students will be assessed on their ability to:

- Provide balanced, clear and accurate coverage of the tourism plan under study; employ a wide range of relevant sources; utilise key data to substantiate discussion; and compile a full and accurate list of sources using the Harvard style of referencing.
- Provide a well-timed, suitably paced and audible presentation; maintain good posture throughout the presentation; establish regular eye contact with the audience; interact with audience members and stimulate discussion using clear supporting visual elements with no spelling, grammatical or typographical errors. (Do not read to me. **Marks will be deducted for reading to the audience.**)
- Demonstrate clear evidence of teamwork and co-operation.
- Avoid rambling, vague, and unsupported statements, slang, and repetition.
- Produce a balanced and well-argued response to any questions or comments made during the discussion following the seminar presentation.
- Submit a concise and well-edited hand-out on the day that your presentation is made that contains the key findings (along with supporting data and figures that cite relevant sources) and a full and accurate list of references of all sources employed.

## ASSESSMENT 1B: INDIVIDUAL REFLECTION 2000 WORDS (20% OF MODULE MARK)

You must also submit your individual reflection of your learning preparing the seminar and of the process of working in your group. This must be submitted electronically via Moodle. All assignments should be submitted on or before the due date (via Moodle) unless an extension has been granted and that you include a completed Assessment Cover Sheet. Electronic versions of your text will be compared with millions of other essays, other coursework items and published works and an 'originality score' (through Urkund) will be calculated automatically to help us check for any academic unfair practice.

### Websites for Individual Reflection

A complete guide to writing a reflective essay:  
<https://www.oxbridgeessays.com/blog/complete-guide-to-writing-a-reflective-essay/>  
 Reflective Essay Examples:  
<https://examples.yourdictionary.com/reflective-essay-examples.html>  
 How to Write 1st Class Reflective Reports:  
<https://www.ivoryresearch.com/library/other-articles/reflective-reports-how-to-write-1st-class-reflective-reports/>  
 How to Write a Reflective Journal with Tips and Examples:  
<https://journey.cloud/reflective-journal>  
 How to Write a Reflective Journal with Tips and Examples:  
<https://penzu.com/how-to-write-a-reflective-journal>  
 Reflective Practice: Reflective Writing:  
[https://dkit.ie.libguides.com/reflective\\_practice/reflective\\_writing](https://dkit.ie.libguides.com/reflective_practice/reflective_writing)

### YouTube clips for Individual Reflection

1. [Reflective Writing](#)
2. [Writing a reflection](#)

### PLEASE NOTE

#### Referencing

All references MUST conform to the Harvard style of referencing. For further details about referencing using the Harvard style.

### Links to useful websites

- United Nations World Tourism Organization  
<http://www2.unwto.org/>
- World Travel and Tourism Council  
<http://www.wttc.org/>

### Moodle

This module is supported by Moodle which is our virtual learning environment: it operates like a website for each module. It is there to support your learning and is not an alternative to attendance. It provides information and advice about this module and the context of the Department more generally, a gateway to readings provided through the Library's electronic services, and to useful websites and other materials selected for you. It is also a means of communication, staff-student, and student-student; you can use it to contact team members and share collaborative files. Additional relevant material will be posted on Moodle as the academic year unfolds. Log on to your Moodle account on a regular basis to receive messages and announcements and gain access to material that supports your study. TUS has invested in this electronic resource to improve communication, aid your learning and further your subject knowledge. If you have any helpful suggestions for other uses of Moodle on this module, please bring them my attention. Using Moodle will benefit your learning and general awareness of International Destination Management as a subject and enhance your learning experience as part of a learning community.

Complete the wiki on moodle as you need to submit the names of your group, your destination and your preferred timeslot.

Assessment items		Guide to length	Due date of Submission	Weighting
Student - led seminar	a. Group seminar presentation	45 minutes	1st Feb 2021	40%
	b. Individual reflective report	2000 words	15th Feb 2021	20%
Module assessment total				60%



# 32 Client Consultancy: Team Assessment

Dr Sinéad O'Leary & Michael Dillane *Department of Hospitality & Department of Tourism & Wellness, TUS Midwest*

## Summary of Teaching & Learning Context

This integrated assessment for Strategic Management and Marketing Management modules in Year 4 of the BA in Business Studies with Travel & Tourism Management and BA in Business Studies with Event Management programmes was initially designed with the following objectives:

- To incorporate a real-life component into final year of the programmes (following a six-month industry placement in Year 3).
- To minimise the stress reported by learners in the final stage of the programmes caused by over-assessment and multiple concurrent deadlines.
- To afford learners a unique opportunity to apply theory by engaging with a client organisation in their industry sector.

## Engagement & Previous Participating Organisations

Since its inception in 2012, student consultancy teams participating in this assessment have delivered over 120 Strategic Marketing Plans to 22 client organisations reflecting the diversity of the tourism and event industry in the region. Previous client organisations include: Kilbane Glamping, Burren Slow Food Festival, St. Mary's Cathedral, Cloncannon BioFarm, Limerick Racecourse, Lough Gur Heritage Centre, Curraghchase Caravan & Campsite, Aillwee Cave & Birds of Prey Centre, Foynes Flying Boat Museum, Jamie Knox Watersports, Terra Nova Fairy Garden, Elite Events, Ennis Book Club Festival and Sharon McMeel Wedding Planner.

## Overview of the Assessment Strategy

Extending the industry collaboration approach and regionally focused remit of TUS, learners adopt the role of consultancy teams to produce a focused, persuasive strategic marketing plan to chart the future direction for the participating client organisation. This integrated assignment was developed to extend learners' knowledge of the synergies between the individual modules and their interdependence at a strategic level. The client engagement provides a very rich educational context where learners can apply diagnostic and analytical frameworks at industry and organisational level to develop a detailed action plan to capture external opportunities with clear alignment to internal resource analysis.

## Summary Description of Assignment Process

Facilitated by module leaders, learners initially participate in a site visit to their client organisation, where possible, or have a detailed client briefing. The first of three submissions is a situational analysis presentation incorporating key evidential frameworks which forms the foundation for a fully developed strategic marketing plan for the final two submissions, a consultancy report and client presentation. The inclusion of project management protocols, project clinics and workshops, and lecturer feedback throughout the entire assessment process create a very comprehensive simulation of a real-world experience for learners.

## Enhancing Student Reflexivity

Reflective practice is embedded within the assessment with continuous critical analysis as well as formal self and peer evaluation. The assessment criteria require student teams to decide the final distribution of marks between all members based on contribution where review meetings (throughout the assignment process) and resolution meetings (where there are discrepancies in allocated marks at the end) are moderated by lecturers. In addition to augmenting module specific knowledge and application, the client engagement and consultancy team focus of the assessment builds key transferable capabilities in communication, collaboration, negotiation, time management, and task prioritisation.

## Challenges & Associated Assignment Supports

The support processes that have been incorporated into the assessment design and evaluation criteria are key to addressing some of the challenges of both securing client organisation participation and learner engagement, including:

- Management of Client Organisation Expectations
- Student Team Self-Selection & Team Member Allocations
- Incorporation & Interim Review of Project Management Logs
- Team Autonomy & Systematic Approach to address Non-Contributing Team Members
- Balancing practical solutions with theoretical application for client context

## Relevant Resources

Event Management Book of Knowledge  
<https://www.embok.org/index.php>

The Next Tourism Generation (NTG) Skills Alliance  
<https://nexttourismgeneration.eu/>

The 5R Framework for Student Reflection  
<https://www.ed.ac.uk/reflection/reflectors-toolkit/reflecting-on-experience/5r-framework>



Kate Harrod (Lough Gur Heritage Centre) – Travel & Tourism Management Site Visit 2018



Dean Niall Sloane (St Mary's Cathedral) – Event Management Site Visit 2019



Innovantage Consultancy presenting strategic marketing report to Sean O' Farrell Cloncannon BioFarm 2020



20/20 Solutions Consultancy presenting strategic marketing report to Jana Mannion (AnnaCarriga) with lecturer Dr Sinéad O'Leary

#### Summary of Teaching & Learning Context

The teaching and learning context applies to law modules with students assigned in groups of four. Each group is required to conduct in depth research in relation to the sections of an Act assigned by the lecturer and prepare and deliver a PowerPoint for presentation in class to their peers. The PowerPoint is also shared on Moodle via the Discussion Forum after the presentations as a learning tool for all groups. In effect the classroom is flipped, and the completed PowerPoints provide both formative and summative assessment and 10% of the module mark will be allocated for this task.

#### Overview of the Assessment Strategy

All the legislation relevant to the law module is divided amongst the groups to ensure that the module syllabus is covered in its totality. This strategy may be used for the later stages of programmes and post graduate programmes (years 3/4). These sections are relevant to real life or professional practice in the business domain.

Each group uses the ILAC framework (Issues, Law, Application/Analysis, Conclusion) to structure the PowerPoint presentation. The use of this framework assists students in law modules with building proficiency in completing assessments (Richardson & Bartlett, 2021).

Autonomy of the group to engage in collaborative planning and drafting of the presentation to be delivered within the time slot allowed – 10 minutes per group is required. Team presentation practice is facilitated in tutorials prior to completion and final presentations. As part of the practice session feedback will be provided by the lecturer. This is a co-constructivist approach facilitating learners to make their own interpretation of the sections of legislation using their prior knowledge of the topic and research (Ryan 2021). The groups will be required to answer a series of questions relating to the presentation and feedback will be provided to the groups post presentation in the form of detailed commentary as part of the assessments. This task also acknowledges that group-work and peer engagement as a strategy assists learning (Ryan 2021).

Evaluation - impact on student engagement/what worked well and why/what might be changed for subsequent implementation?

- Peer to peer learning (Redmond et al., 2018)
- It provided a very important means for the lecturer of evaluating the learner's engagement with the various topics covered in the module
- Ensures that the groups engage with the Moodle platform
- Creates and fosters a culture of cooperation and group learning

- Develops Agency – learners taking responsibility for their own learning (Redmond et al)
- Allows for all learners to participate in peer-to-peer learning at different levels and e.g. allows for weaker learners to observe the learning of their peers which will result in a better outcome for all (Crimmins and Midkiff (2017)
- Builds community of learning (Redmond et al) – presentations shared on the Moodle discussion forum for access to all groups
- Supports and encourages peers (Redmond et al)
- Thinking critically and developing deep discipline understandings (Ryan, M. 2021) – providing Sections of the Act as opposed to topics so that learners create their own interpretation and meaning of legislation.

#### Relevant Resources Used and Instructions Provided for Learners

Assignment Brief, PowerPoint, Discussion Forum on Moodle for sharing presentations after the presentations and class notes.

#### Useful Resources

<https://www.westlaw.ie>  
<https://www.justis.vlex.com>  
<https://www.irishstatutebook.ie>

Richardson E. and Bartlett O. (2021) *Legal Research & Writing Skills in Ireland*. Dublin:Clarus Press.

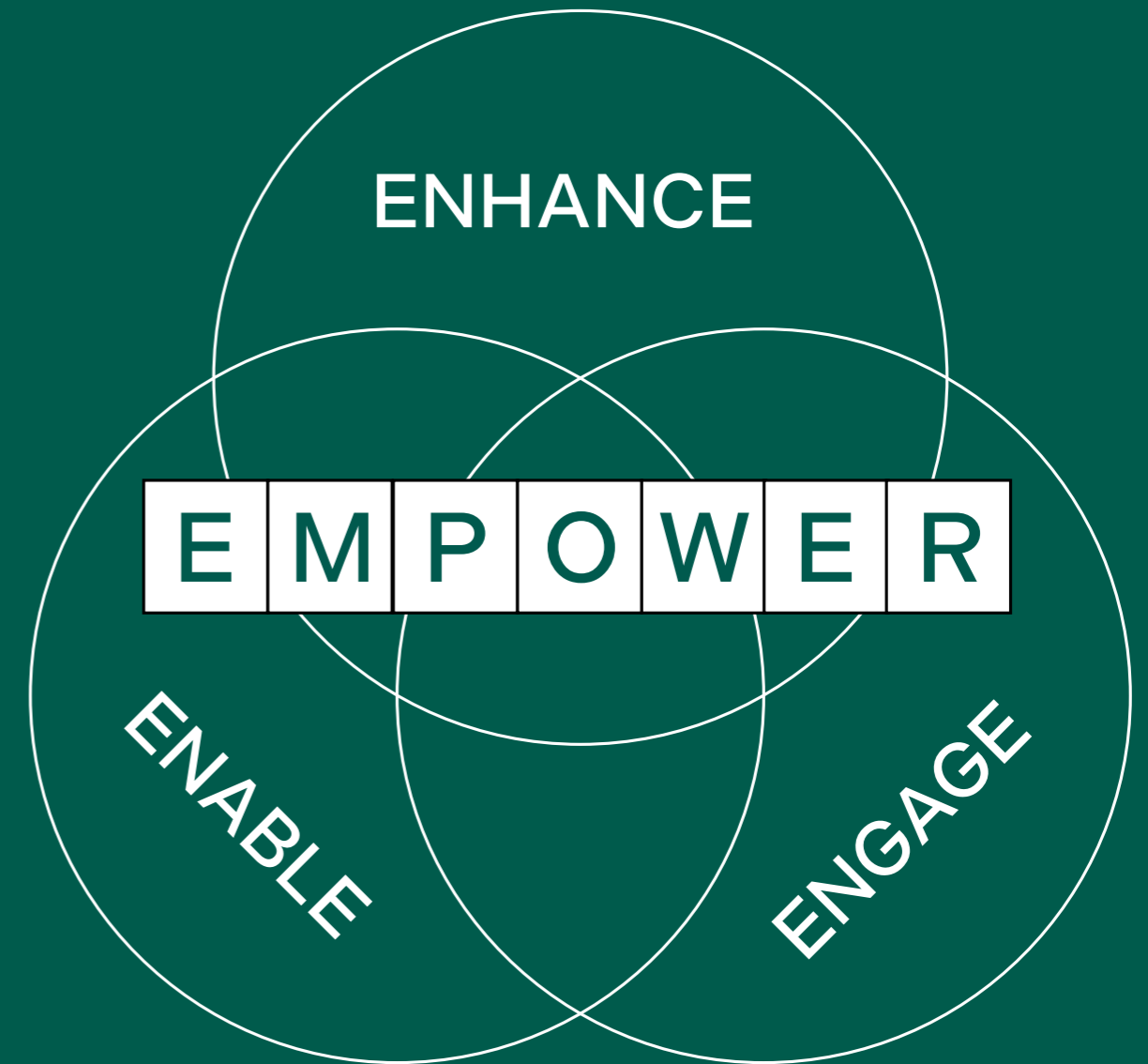
Schweppe J. and Kennedy R. and Donnelly L. (2016) *How to think, write and cite: key skills for Irish Law Students*, Dublin: Round Hall.

#### References

Crimmins, Crimmins and Midkiff (2017). *High Structure Active Learning Pedagogy for the Teaching of Organic Chemistry: Assessing the Impact on Academic Outcomes*.

Redmond, P., Heffernan, A., Abawi, L., Brown, A., & Henderson, R. (2018). *An online engagement framework for higher education*.

Ryan, M.F. (2021). LIT Compendium of Active Learning Strategies for Student Engagement, LIT.





# SECTION

three

Theory  
Practice  
Issues



# 34

## Team-based Learning: A Team Reflection

Stephanie Duffy, Dr Natasha McCormack, David O’Hanlon,  
Dr Mairead Seery TUS Midlands

### Introduction

The “Fundamentals in Team Based Learning (TBL)” workshop series offered within TUS Midlands in 2019 and again in 2021 provided faculty with formal training in TBL as well as the opportunity to apply the TBL process to their subject area. [Link to TBL Intro]

In TUS Midlands, TBL has been implemented by educators within subjects as diverse as pharmacology, research methods, communications, programming, software engineering, consumer psychology, management, health and safety and accounting.

The present authors met regularly throughout the academic year as part of the TUS Midlands TBL Community of Practice to share insights from their practice. The following is an overview of how the authors consider that learning about and adopting TBL has impacted their practice. **Less absenteeism and more engagement make for a better class dynamic.**

Overall, we have found that absenteeism from TBL classes is greatly reduced (e.g., Torralba and Doo, 2020). Low stakes in-class quizzes seem to encourage students to turn up to class. We have also found that there is high engagement during the TRAT and application exercise phase of TBL.

One explanation for this might be that the TBL approach puts in place conditions where intrinsic motivation can flourish (Jeno et al., 2017). Students take the driving seat during class (autonomy) and work within a team (relatedness) to complete tasks and exercises (competence).

The highly structured approach of TBL helps everyone in the classroom feel more confident. As students settle into their in-class teamwork, we observe increases in confidence (Huitt, Killins and Brooks, 2015) and can see students “coming out of their shells” as the weeks go by. This motivates and helps us to be ambitious in terms of what we plan to achieve with our students.

### Immediate, impactful and instructive feedback.

TBL creates a highly dynamic feedback-based environment for all involved. Students obtain immediate feedback during the tRAT, including the opportunity to discuss wrong answers as they arise. This immediate feedback (correct /incorrect) is impactful in several ways. Firstly, it encourages critical thinking as students continue to search for the right answer. It is evident that students display higher retention of key concepts as time goes by. The discussion process cultivates skilled graduates with higher cognitive skills such as critical analysis, complex problem solving, self-reflection and lifelong-learning.

With the emphasis on teaching using questions and immediate feedback, TBL acts as “assessment for learning” for the educator i.e., it informs and instructs our next teaching moves. TBL allows the practitioner to monitor understanding of the whole class as opposed to just the individual students who engage.

Once we identify gaps in student knowledge, we pose follow-up questions to further challenge thinking and to develop understanding through discussion.

Overall, TBL leads educators to focus on areas of student weakness, rather than to prioritise our preferred lecturer-led content. Knowing the mistakes and errors that students usually make is helpful when it comes to devising questions and plausible distractors for MCQs and application exercises. Reviewing patterns of iRAT and tRAT scores, as well as application exercise answers from the previous year can assist with this also.

### More authentic team experiences and mutual respect.

Because of the permanent nature of the teams, and the ongoing collaboration required, we have found that students get a stronger sense of what teamwork in a workplace might involve (Huitt, Killins and Brooks, 2015). As noted earlier, the TBL process develops a range of graduate attributes required to be an effective team member. Ensuring diversity within the teams has supported the development of a collaborative and respectful culture in the class, and students have had the opportunity to get to know and learn with and from other classmates that they may typically not have interacted with (e.g., local and international students).

### Distributed teaching in a more democratic classroom.

We have found that TBL disrupts the traditional hierarchy of the teacher-student relationship. Firstly, TBL places the focus on the materials and as such, it takes the spotlight off the educator who in fact designed them. The design work is in a sense invisible to students and, as a result, students are less conscious of the teacher as being the more knowledgeable party. Secondly, the students shoulder most of the talking load as they explain answers to their peers. In this way, the TBL process distributes the teaching to the students. During this time, the TBL practitioner listens in preparation for the class discussion stage (Gullo, Ha and Cook, 2015). Finally, the classroom is further flattened as students become “promoted” to a greater position of authority through simultaneous revealing of answers, gallery walks and commenting on their peers’ answers.

### Backwards design starting with learning outcomes.

When designing a TBL unit, one commences at the end, identifying the learning outcomes for each unit (Parmelee and Michaelsen, 2010). This helps to identify appropriate application exercises that will shed light on whether our students have absorbed the learning fully.

The core concepts that are needed to engage with those application exercises are then identified. These concepts will form the basis of the “Readiness Assurance Test” (RAT) content. Feedback from the RAT help practitioners ascertain if students are au fait with the key concepts and ready to move on, or whether further teaching is first required. Having devised the RAT, the final step is to curate pre-class content that students will study.

Using a TBL approach has made us more mindful of the scaffolding that we need to put in place to help our students achieve the learning outcomes through active learning.

### Pivoting to TBL is challenging but peer support helps.

Adopting TBL can be challenging (Haidet, Kubitz and McCormack, 2014) with a variety of preparatory work necessary to be completed before live classes. Whilst implementing TBL might require significant rethinking of one’s practice, it does not mean reinventing the wheel! We creatively rework existing teaching material to be a set of questions, problems and scenarios to be used in MCQs and application exercises.

The peer-to-peer support from fellow early adopters of TBL from throughout TUS Midlands through a regular TBL community of practice (CoP) meeting and ad-hoc one-to-one meetings has helped us to surface challenges and share tips. Most importantly, it has provided reassurance, collegiality and cross-faculty collaboration. Leveraging peer supports such as the TBL CoP would be a great way to nurture cross-campus connections, as well as promote more active learning for all TUS students.

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Through action research I inquired into my pedagogical practice, where one of the research questions I asked was: How do I build teamwork within a Software Engineering Curriculum to engage students? (Russell, 2021).

I addressed the issue of integrating teamwork into my practice over two academic years as I taught an Agile Methodologies curriculum to two different cohort of students studying for a Level 8 Bachelor of Engineering (Software) degree. Each cohort consisted of a range of nationalities and cultures. The majority were from Ireland and China but the classes also comprised of students from Eastern Europe and India.

#### The Scrum Team

Agile software development is a process to create software products. A key component of this methodology is the concept of the 'scrum team' (Ashmore and Runyan, 2015, p.84) comprised of a group of 4 to 7 software engineers who have ultimate responsibility for building a software product. I took action to transform my practice to enact team-work based on the concept of the Scrum Team to:

*provide students critical experience relevant to their future careers, [and] to set problems of greater scale and complexity than could be tackled individually, and [which] are a vehicle for socially constructed learning. (Neill, DeFranco and Sangwan, 2017, p.591)*

#### Building Teamwork to Engage Students

To build teamwork and engage students, I encouraged collaborative learning in an environment where students work together, within a scrum team, using strategies which focus 'mainly on students' exploration or application of course material, not on the presentation of the material by the teacher' (Clarke et al., 2014, p.18:4). This involved me promoting aspects of learning such as group-work, leadership and other interpersonal skills, and problem solving skills as well encouraging the students to take responsibility for one's own learning and actions (O' Neill and Moore, 2008).

To do so, students were required to collaborate together over a semester on a real-world Software Engineering problem. I introduced students to the concept of '[c]ooperative learning' (Johnson and Johnson, 2018, p.1) as a means for them to manage their own and the team's engagement with the process of group-work within a scrum team. I explained the fundamental aspects of cooperative learning: positive interdependence, face-to-face interaction, individual and group accountability, interpersonal and small-group skills, and group processing.

Positive interdependence within teams requires that the participation of every member is necessary to the completion of the project. Face-to-face interaction is needed to figure out the logistics of completing the project as well as to exchange ideas and solve problems. Team members have both individual and group responsibilities that other team members hold them accountable for.

Interpersonal and small-group skills enable team members to develop skills, such as, how to resolve conflicts in a constructive manner or to ably draw upon the strengths of others to solve problems. The concept of group processing provides opportunities for individuals within a group to talk and reflect with one another about what worked and did not work while engaging with a project.

I not only had to explain these fundamental aspects of cooperative learning but, I also had to ensure that the real-world projects enacted by me provided students with opportunities to engage with all features of cooperative learning as they undertook their assigned projects.

I identified facilitation as a key process I must implement in building teamwork to engage students. As a facilitator I endeavoured 'not to teach or give information but rather to facilitate students reasoning through the problem' (Barrett, 2005, p.60), where I encouraged the students' active participation and collaboration within the team.

#### Students' Experiences of Engaging in Team-Work

Students unanimously agreed that team-work was an essential activity within their learning experiences. They felt 'group work... enhanced our experience on the course' [and their] overall experience with it was very positive' (Russell, 2021, p.169).

Some students were concerned with the random way that teams were selected, 'where everyone was put in a line and everyone was given a number [because it resulted in a] spread of ability across the teams [that] probably wasn't as good as it could have been' (Russell, 2021, p.170). Other students commented further that the selection process resulted in teams that realistically mirror the structure of teams within industry. They felt that when 'working with a team, or working with people, really, everybody will never be on the same level' (Russell, 2021, p.170).

Students discovered getting 'into groups [where] we didn't know the people [and] we were all from different backgrounds' (Russell, 2021, p.171) provided the basis for them to experience forming professional bonds, which resulted in them taking responsibility for group tasks and activities. However, students also recognised that for a variety of reasons some team members do not take full responsibility within their group because within some groups a small number of members needed to be "carried" (i.e. their work done by somebody else) as 'sometimes some of the group members can be lazy or [...] busy with other stuff' (Russell, 2021, p.173).

Team members experienced 'very good cooperation in terms of, when somebody had a problem, there was always somebody who would say yeah, I know how to do that, give me five minutes' (Russell, 2021, p.175). Finally, team-work was seen as a particular type of learning opportunity in that it was perceived as the vehicle which allowed the students to practice 'what was being taught [by utilising theory in] certain situations' (Russell, 2021, p.175).

#### Conclusion

In becoming the facilitator that I now am, I ensure I stand inside each team with students as we share meaning or understanding (Wenger, 1998). I no longer feel the need to control the discussion. I have learned to lessen my need to be fully in control of all conversations to the extent that all interactions now evolve in a dialogical manner in reaction to the ideas and any unplanned contributions from members of a group. I have learned to listen to, draw on, and be directed by the students' experiences as I enact team-work within the curriculum.

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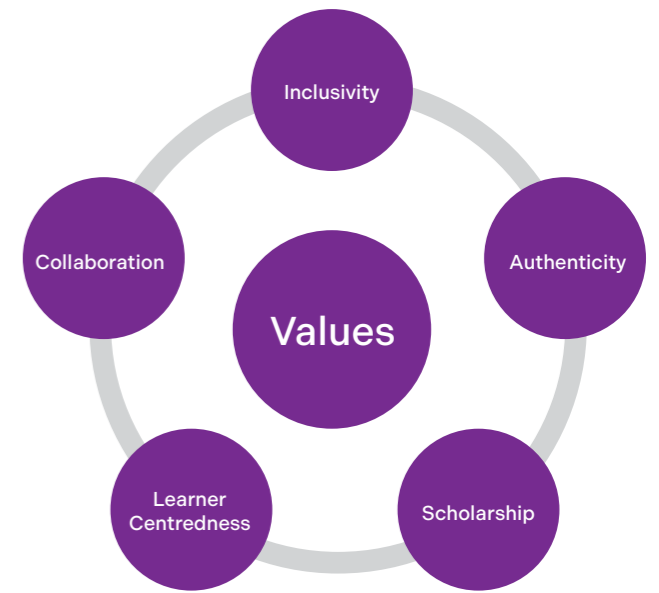


# 36 Final Year Capstone Group & Individual Assessment

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The context of the assessment task for this 4th Year Final capstone assessment is based on the widely acclaimed 'Dragon's Den' BBC programme that showcases entrepreneurs' business ideas to investors.

The investment for the commercial transaction is reflected in a shareholder's agreement. This authentic assessment is linked to the professional practice of a commercial lawyer. The rationale of this capstone assessment is to engage final year students in the Commercial Law module in the Law and Tax Level 8 programme to draft and negotiate a shareholders' agreement. This real-world problem-based assignment is designed to embed learning outcomes to include teamwork, problem solving, collaboration, communication to deepen learning and evaluate and critically analyse commercial clauses and key concepts. Students collaborate with peers to negotiate the terms of the commercial agreement. Students' adversarial skills are linked to professional practice and develop key law graduate attributes.



Scaffolding of prior learning and interconnectedness in group assessment

The 'Signature Pedagogy' and mission statement of TUS is based on active learning. This assessment relates to constructivism that 'Learning takes place through the active behaviours of the student: it is what he does that he learns...' Tyler notes 'These educational objectives become the criteria by which materials are selected, content is outlined, instructional procedures are developed and tests and examinations are prepared.'

### Values

The National Professional Development Framework (A Conceptual Model for the Professional Development of those who teach in Irish higher Education [2016]) is underpinned by core values such as 'Inclusivity', 'Authenticity', 'Learner-Centredness', 'Collaboration' and 'Scholarship'.

This assessment aims to embed these values drafting, negotiating, collaborating, presenting, comparing frameworks for types of shareholders' agreements, connecting course concepts and commercial law themes with clarity, organisation, structure and format.

In preparation, students are briefed on case analysis that focuses on the practice of writing focused, concise summaries on legal opinion that include "an analysis of facts, the formulation of issues, a study of relevant law, and an analysis of the court's reasoning that supports the decision". Writing a shareholders' agreement requires students to distil the legal rules and write clear concise clauses to clarify the issues. This engages students in deductive reasoning and the final draft of the shareholders' agreement gives students a sense of ownership that an authentic assessment delivers.

Students are instructed in proper citation and reference formats with tips for writing their group and individual assignment to engage actively negotiating and asking and answering questions and to write purposefully and in accordance with set rubric criteria. These include identification of legal issues, rule of law, legal rationale and the formulation of a first and final group commercial shareholders agreement and individual reflection on problem-based learning.

The terms 'assessment' has come to be understood as part of the National Forum's Enhancement Theme 2016-2018 noting three concepts: Assessment OF Learning; Assessment FOR Learning; and Assessment AS Learning (Earl and Katz, 2006).

**Feedback**

Students are evaluated using a scale with descriptors and grade bands in a rubric harnessing different learning styles and profiles and multiples intelligences. According to Gardner 'People have a wide range of capacities. A person's strength in one area of performance simply does not predict any comparable strengths in other areas.'

In accordance with the four key best practice principles feedback is:

1. Accessible;
2. Timely;
3. Promotes dialogue; and
4. Self-evaluation skills.

Feedback in this final year capstone assessment is both formative and summative. For the group assignment formative feedback is provided on each of the drafts of the shareholder's commercial agreement. Hattie (2009) suggests that feedback is an interactive two-way process allowing students to provide feedback to teachers and vice versa. Feedback bridges the gap between where they are and what they may have got wrong and how they can improve in 'promoting metacognitive self-monitoring'.

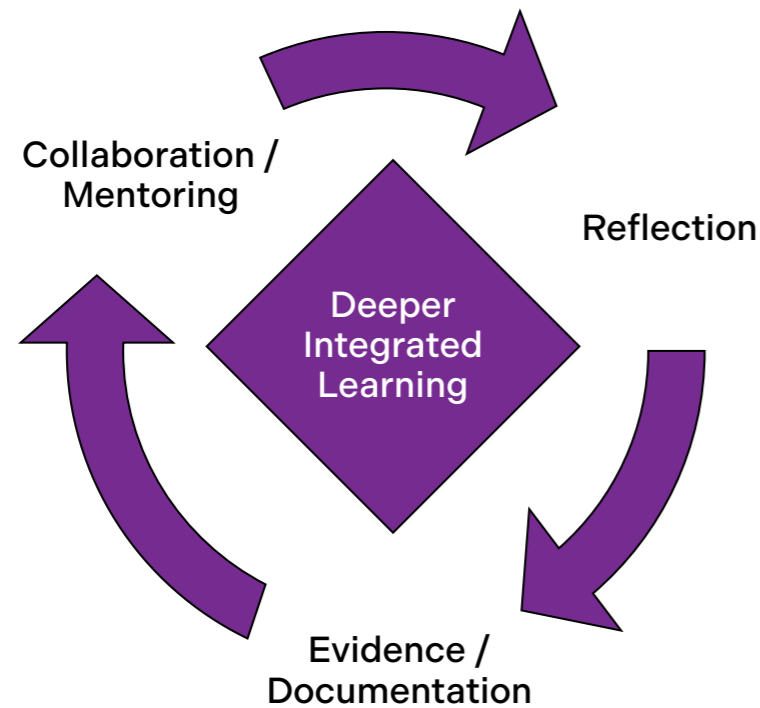
As part of the summative feedback process, individual critical reflection evaluate patterns in students' self-reported learning. The review demonstrates a deep understanding of commercial agreements through analytical perspectives, conceptualising law and recognising the relationship between law and the commercial world.

**Reflection**

As part of the individual assignment, each student is asked to reflect on the challenges and share with peers what they learned while and after completing the group assignment. Specifically, students are asked "What did you learn from the group element of the assignment? "What did you learn from writing the individual legal analysis?" What did you learn from comparing the two approaches? This reflective process affords students an opportunity to evaluate the counterbalance and challenge of group assessment with the individual aspect of the assignment.

Reflection practice is usually enhanced when there is sharing of reflection with others and a Group Agreement can facilitate the sharing of experiences of group assessment.

Self-evaluation is also included in the assignment rubric to maximise students' awareness of their own knowledge construction. Biggs, in fact refers to monitoring the 'construction site' as a term he uses for those study skills that involve self-management, including self-evaluation.

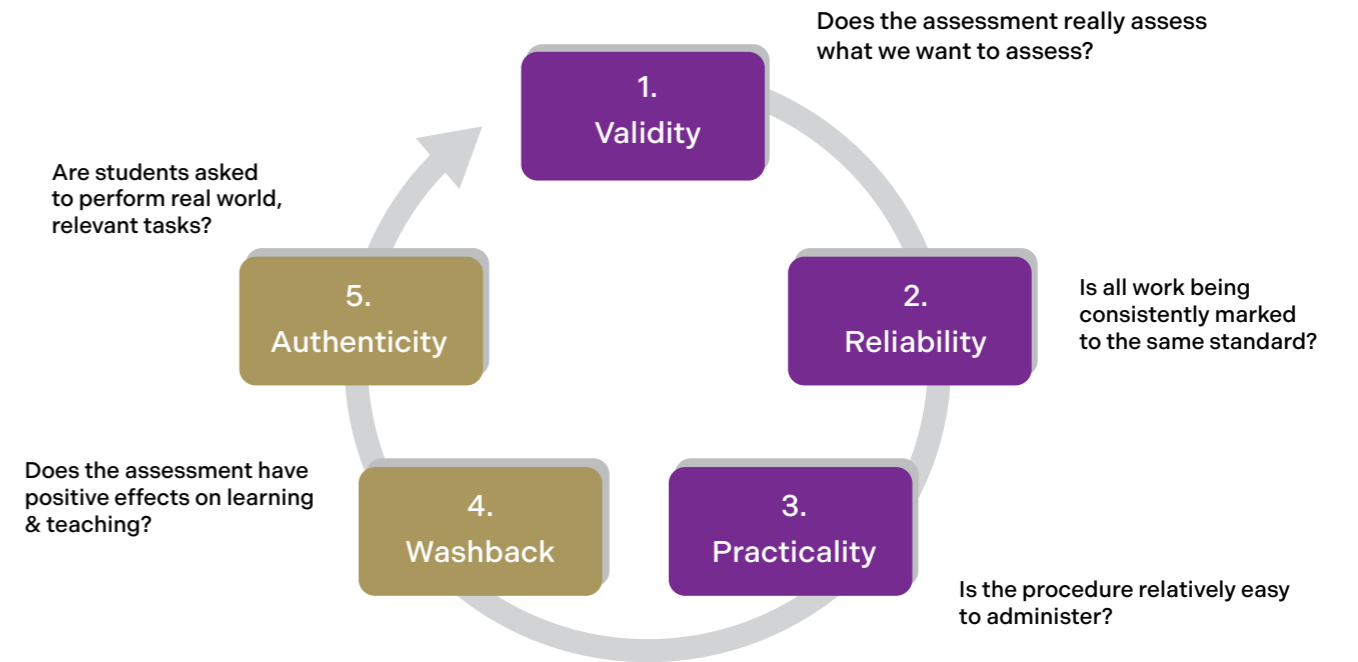


**Assessment Framework**

Assessment is deemed a vital part of all university studies and the 'Overarching Principles of Assessment Design (VRPWA) Framework certainly demonstrates how assessment is thought to be the 'single biggest influence on how students approach their learning'.

The 5 key principles of assessment design include:

**5 Key Principles of Assessment Design**



(VRPWA Framework – Ryan, M. 2021)

According to Biggs in the measurement model for assessment (and Ryan 2021 above), Validity is an important criteria for assessment. Biggs argues that the test needs to be 'validated against some external criterion'. External professional bodies such as the Law Society of Ireland validate the ILAC (Issue Law Application Conclusion) assessment model for legal problem-based learning.

The anticipated washback on the student learning experience is a constructivist view of learning. The learner constructs their own knowledge by interaction with peers in this assessment by creating an authentic legal document and individual reflection problem based learning.

The National Forum Enhancement Theme 2016-2018 referred to Ireland adopting and promoting "innovative, engaging, collaborative, learner-oriented and integrated" approaches to assessment.

Such challenges and changes have been identified by the European Commission:

"We must prepare students to cope with the unknown and build their capacity to learn when the props of a course – curriculum, assignments, teachers, academic resources – are withdrawn. What, then, does that imply for what and how we assess?"

In Ulysses, Joyce notes that 'To learn one must be humble. But life is the great teacher'.

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# 37 Exploring The Impact Of Active Learning In Blended & Online Learning

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Full Title - *Emerging Insights from an Evaluative Study: exploring the impact of active Learning on academic practice in blended and online learning*

This reflection is based on the initial key finding from a research study exploring the impact of Active Learning on Academic Practice in Blended and Online Learning. The findings are based on a review of literature in the area of active learning and blended and online learning as well as analysis of staff interviews and a student survey. From the thematic analysis of the staff and student data to date, initial key findings have emerged.

## Online Learning Should Incorporate Student-Centred Active Learning Approaches Aligned to Student Engagement

There are many factors that need to be considered when designing and teaching online. Multiple variables will impact on the design choices around how the course is taught. The types of content/learning material to be developed, the types of in-class activities that can/should be implemented and the assessment types that are selected will be unique to each programme. However, one consistency should be that designing blended and online programmes needs to begin with a student-centred approach. The analysis of the staff interview data reflected many challenges for getting students to actively participate in online class. This void impacted on staff being able to gauge students' level of understanding of the material covered and the effectiveness of the teaching. Staff found it was difficult to replicate the interaction and engagement from a face-to-face class in the online class.

Perceived limitations around what can/cannot be achieved in the online space has the potential to hinder the student's learning. Staff refer to the lack of social engagement from students, how students were shy and quiet in the main online class and this was challenging for them. Only through structured activities such as breakout room or discussion forums staff felt that student could connect with their peers and engage. This issue is commonly identified in the literature around online learning. Conrad and Donaldson (2012) emphasis that online engagement is related to "participation and interaction".

Groccia notes that regardless of a class being delivered in a face to face or online it is "still an interactive community event whose success rests upon the instructor's ability to create a sense of presence and engage students in the learning process" (Groccia, 2018).

The key to facilitating learning in this space is recognising the importance of student engagement online. Embedding active learning throughout the coursework that aligns to the different types of engagement helps to prevent students missing out on a full learning experience. The five types of engagement identified by Redmond show the different aspects of the engagement that must be nurtured (Redmond et al, 2018).

## Developing the Teaching and Student Relationship for Online Learning Through Pedagogies of Care and Digital Empathy

The study identified the need for staff to further explore how to incorporate digital empathy into their online pedagogical practice. Friesem defines digital empathy as the "cognitive and emotional ability to be reflective and socially responsible while strategically using digital media" (Friesem, 2016). The data from the staff interviews highlights the concerns that staff have around staying connected with students. Most staff said they had spent much more time outside of class time to answer email queries and to give follow up or one-to-one sessions. Staff were worried and concerned about students not being able to access the content and keeping up with the coursework. The fear of students falling behind resulted in staff having to check on them on an individual level.

Staff were mindful that certain approaches for communicating with students were not beneficial e.g. where students did not feel comfortable turning on their cameras or talking. Staff indicated that not all students felt included, they were isolated and disconnected from peers. Connecting with students and building the teacher-student relationship can help students to engage. Burke et al's (2021) recognise the importance of pedagogies of care for "effective and engaging online pedagogy".

The results from this study indicate that 50% of students would like to see some element of blended learning as part of their programme. This research will aim to identify suitable approaches for helping staff to develop digital empathy in the online classroom.

## Managing Expectations and Preparing Students for Learning Online

Managing different cohorts of students in an online space is important to ensure the required group dynamics are instilled in the online class. The Staff interview data found staff felt that group dynamics will have an impact of the learning experience. This will impact on how the group engage and participate or if they will passively attend classes. Preparing students to interact with online activities such as group activities, discussion forums, collaborative spaces can help them to gain the most from these activities. The need to provide clear communication channels and space for students to discuss with their peers and with staff is key for building behavioural engagement in the online class.

The student survey revealed that for students their main priority is focused on doing well in assignments, completing coursework and being engaged. Activities such as participating in groupwork, completing online activities and getting to know others in the class were selected as least characteristic of students. Highlighting the importance of these activities to the students should give them a better understanding of why it is important to participate in the overall learning and class experience.

Conole's 7C's of Learning Design Model highlights the importance of clear and consistent communication for students (Conole, Fill, 2005). The need for clarity around online tasks is evident also in Gilly Salmon's E-tivity Framework (Salmon, 2009) and the importance of informing students of the purpose of any online tasks and activities.

## Consistent Institutional Support and Guidance for Staff teaching Blended and Online

The majority of staff felt that delivering online took a lot more time. Additional time communicating to students was also noted by staff and this has impacted on their overall work life balance. Staff are spending a lot more time preparing their online classes. Some compared the face to face to the online space and felt they could not replicate how they teach in a face to face class in an online class. A lack of confidence with the range of applications and tools that could be implemented was common, with many feeling overwhelmed when first teaching online. Staff were not as comfortable improvising or moving away from the slides being covered. Improvising and doing on the spot group activities were not as easy to complete and the online class had to be more structured with everything setup and ready to go before class started.

The results show a lack of certainty when designing lesson plans and assessment strategies for online classes. The varying level of engagement within certain activities highlights the issue that the composition and focus of the activity must be tailored towards the individual group.

An increase in work, duty and responsibility was noted by many staff who mentioned that this led to an increase in stress and anxiety with their duty as a lecturer. The large increase in communication with students outside of class time stresses the need for resources and guidance for teaching online and how best to manage expectations for both staff and students. There is a need for guidance for structuring coursework within online applications, and the most appropriate use of certain tools and applications.

Support should be given to staff new to blended and online learning to help them balance a new teaching mode (Blended/Online). Staff need to be cognisant of ensuring students are engaged in the learning, the well-being of students is balanced and developing the student teaching relationship. These demands will vary from class to class but will weigh heavily on a lecturer and supports should be put in place to avoid burnout of staff. Support is essential to ensure there is a consistent level of integrity on new blended and online programmes going forward.

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# 38 Assigned Reading Exercises For Global Tourism Issues

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Department of Hospitality, Tourism and Wellness, TUS Midwest

Full Title - Reflecting on the use of an Assigned Reading Exercise: Global Tourism Issues

Enamul-Hoque (2016; 46) states that the cognitive domain includes learning processes including a hierarchy of skills involving processing information, constructing understanding, applying knowledge, solving problems, and conducting research. Winn, DelSignore, Marcus, Chiell, Freiman, Stafford and Newman (2019) ascertain that cognitive learning strategies are strategies that improve a learner's ability to process information more deeply, transfer and apply information to new situations, and result in enhanced and better-retained learning. Consequently, for the purpose of this assignment, a cognitive approach (The Assigned Reading Exercise) as its main aim is to compare and contrast documented research and literature as McLeod (2019) suggests that the teacher's major task is to foster a collaborative problem-solving atmosphere in which students take a key role in their own learning. A teacher, rather than being an instructor, functions as a facilitator of learning in this context which supports my constructive approach.

The Assigned Reading Exercise is a very effective strategy for creating a culture of reading and independent study among a student cohort especially in final year. It can also be developed to serve many higher-order, critical thinking, learning outcomes (LIT Compendium of Active Learning Strategies for Student Engagement; 18). The module that I used the Assigned Reading Exercise was Global Tourism Issues on the B.A. (Honours) in Business Studies with Travel and Tourism Management which was designed to evaluate and critically assess the key global issues that have significance in tourism in a global context. This was a 4th Year module and there were 27 students in the group. I had the students for a 2-hour lecture and then a 1-hour tutorial both on a Tuesday.

As per LIT and COVID 19 guidelines the Global Tourism Issues module is currently being delivered online. The reading is a journal article which was issued to the students (via Moodle) 1-week prior (in the tutorial) and I updated the students on what I had planned for their next tutorial and what was expected of them beforehand. Students also received these instructions through Moodle on the same day and a reminder email was sent out the day before their next tutorial in order to encourage them to read the article prior to the tutorial.

On the day of the tutorial, once again I explained what I expected of the students in this tutorial. After this and a brief Q&A session with the students, MS Teams allocated them into groups of 2 and they were aware that they had 30 minutes to undertake the activity. The students also had a copy of the Journal Review Form (See Appendix 1) which they needed to complete.

I popped into each group separately and they seem to understand what was required and were working away on completing the Journal Review Form. After 20 minutes I announced to the students (via MS Teams) that they had 10 minutes left to complete their work. Then after 30 minutes, I closed the MS Teams Breakout Rooms and the students automatically returned to the main virtual classroom.

I asked each group (6 in total) to present their answers as we worked through the Journal Review Form. They seemed to be very confident and provided a very critical review of the journal article as we had a vibrant discussion on each point. I repeated all of this for the 2nd tutorial which occurred immediately after the 1st one. This was the same programme but for the purposes of tutorials they were divided into two groups.

The students seem to really like working in groups and completing the Journal Review Form. I also highlighted the fact that I was using the latest journal articles from the most revered tourism journal and if they referenced correctly they could also use it for their Final Year Project (FYP). We had a very lively discussion and it was great to see the students being so passionate about their chosen subject area. I reinforced to the students that this exercise would be occurring on a weekly basis (in their tutorials, with a new journal article each week) until Easter as it would form a key part of their final assignment which was worth 50%. One of the most significant advantages of active learning is that it keeps students engaged. They engage with a topic by completing activities that help to reinforce knowledge, concepts, and skills. Students' progress from short-term retention to deeper levels of understanding through memorable learning experiences (Cambridge University Press, 2022). There is evidence that classroom techniques designed to engage students in the learning process result in better educational outcomes at almost all levels. Although students perceived that traditional lectures provided them with more information, they actually learned more when they participated in classrooms that used so-called active-learning strategies (Harvard Gazette, 2022).

This Active Learning Approach really benefited my students as they mentioned afterwards in our informal session that interacting with content through active learning has several compelling advantages over traditional lecture delivery modes. It aids in the retention of student's attention and the development of higher-level skills such as critical thinking. It also aids in the engagement of students who might otherwise struggle. This does not mean abandoning spoken lectures; rather, it means incorporating various methods of engaging with the material at regular intervals throughout the lecture is crucial for student participation.

Finally, I have shown in this assignment how this Active Learning Strategy - Assigned Reading Exercise has had a very positive impact on both my teaching style and my students approach to their own overall learning experience and most importantly giving students feedback allows them to gain control over their own learning and confidence in their abilities.

## Resources Used

Journal article - Fotiadis, A., Polyzos, S. and T.C. Tzung-Cheng (2021). The good, the bad and the ugly on COVID-19 tourism recovery, *Annals of Tourism Research* 87, 1-14. ISSN 0160-7383 <https://www.sciencedirect.com/science/article/pii/S0160738320302619>  
Journal Review Form (See Appendix 1 below)

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## Appendix 1

Journal Review Form	
Author of Article	
Year of Article	
Article Title	
Journal Title	
Volume and Page Numbers	
Publisher of Article	
Summary of Article (in your own words)	
What was the main objective(s) of the article?	
How did the authors go about investigating the issue?	
What were the main findings?	
Make at least (5) suggestions as to how this article might be improved.	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> </ol>

The discourse of 'care centred pedagogy' has gained significant momentum in recent decades. Authors such as Lynch (2010 & 2015) and Noddings (2013) have highlighted the dangers of 'care-less' education environments associated with increasingly marketized, neo-liberal agendas (preoccupied primarily with measurable outputs, numbers and performativity metrics). There has therefore been a counter movement that increasingly values care centred pedagogies and climates of care. Care centred pedagogies and their positive impact on student motivation, and inclusion have subsequently been well documented by authors such as: Motta and Bennett (2018), Palahicky et.al. (2019) and Bali (2021).

TUS-MMW is therefore committed to a care-centred pedagogy, which places 'human relationality' at the core of our teaching and learning. 'Pedagogies of care, including transition pedagogies' is a key pillar in our new TUS-MMW Learning, Teaching and Assessment Strategy (2022). It is a commitment to a socially just, inclusive, and enriching learning experience for all our students. It is about an authentic educator presence, where our pedagogical practice reflects the importance of the social and the relational. A care-centred philosophy enables and nurtures "climates of care" (Noddings, 1984) where our learners, teachers and support staff feel valued, respected and connected as part of a learning community of equality, trust and fairness (O'Connell and Ryan 2022). We are committed to creating a 'community of practice' as colleagues who attend regularly to the underlying purpose of our programmes and critically discuss pedagogical issues, in a supportive collegial environment.

When we place our students and our relationships with them, at the centre of our practice, we embed a deep respect for the students' capacity and agency for learning. Placing pedagogic relationships at the centre of our practice, enables us to draw on the existing funds of knowledge (Moll, et al., 1992) that our students bring to the learning encounter. Active learning strategies respect prior student knowledge and experience. It therefore seeks to connect these 'funds' to our curricula. Active learning can thereby enable our students to put into practice these new connections and become agents in their own knowledge making. It is deeply respectful of our students and what they bring to the learning encounter, reflecting co-constructivist approaches. Active learning shifts the focus from the lecturer to the student's engagement with the module content. The lecturer becomes a facilitator of learning, rather than a deliverer of content. This is a crucial pivot in understanding how learning happens.

Drawing on the Deweyan (1916) conception of education as a social process, we see active learning as a key vehicle for these social interactions. More recently, the impact of active learning on student performance and engagement has been highlighted by authors such as: Eison (2010), Freeman (2014) and Ryan (2021). Drawing from Dewey's conception of learning as a social process, contemporary authors favoured a co-constructivist ethos in learning encounters.

As we commit to active learning in our pedagogical approach, we must also consider innovative learning assessment which builds on this philosophy of learning. As students engage in active learning for innovative assessments, they feel respected and valued as contributors to the TUS-MMW learning community.

#### Building active learning strategies into our practice

In order to embed active learning strategies in our teaching, we need to adopt an attitude of humility and a willingness to learn. We need to move from any notions of 'the all-knowing lecturer' to facilitators who are happy to share what we know, help our students to discover what they know and declare what we collectively don't know. We can therefore guide them to continually look for answers. To help our students become self-directed and autonomous learners as they progress through third level education, we need to encourage them to continue searching and thinking.

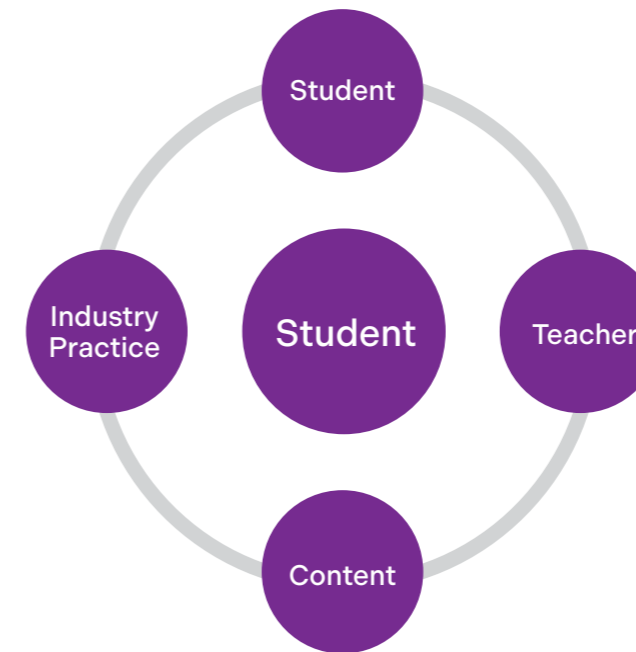
This 'not knowing' attitude paradoxically begins with being seriously committed to our subject domain and researching and developing associated resources so that we have adequate mastery to design and facilitate a rich and informed learning experience for our students. It is important to be explicit with our students about our teaching style: *Care centred pedagogy, with active learning for student engagement infused with energy, fun and reflection.* Being explicit about the rationale, what is required from our students in terms of engagement and active learning is important too. Drawing on the rich lineage of educators and particularly John Dewey, who explicates an active teaching and learning philosophy, helps our students value this approach.

In our teaching we seek to create a stimulating learning environment of humour, challenge, problem solving, insight, reflection, space for thinking and peer engagement. In order to create this type of learning space for active and connected learning opportunities, we must lay the groundwork for group work and community building with peers. This can take some time at the outset of our learning encounters, but it is essential to create good boundaries and clear guidelines for the peer engagement we require in our classrooms.

This can involve a group learning contract and developing ground rules that can help students navigate the learning environment. The recently published resource 'Groupwork in Higher Education: A Practitioner Guide' (Ryan 2022) may be helpful here. We need to attend to the diversity of our student population and notice students who may need more encouragement to engage. Shy or reticent students may find it challenging to engage in the learning community. We need to have an equality lens to our practice as our student body becomes more diversified and commit to inclusive practices which create a welcoming climate for all students. Engaging with students in enhancement activities is also helpful. Enhancement activities can include: site visits, guest speakers, conference planning, professional seminars, (discussion of relevant film/documentary) report or publication launches and Christmas fundraising activities.

When we plan our pedagogical approach to embrace each of the four interactions below, we are providing students with a rich and diverse learning experience that places students at the centre of the learning approach. The many active learning strategies contained in this publication and in its precursor (Ryan 2021) provides for a great variety of rich learning scenarios.

#### The four pedagogical interactions of Active Learning



#### Building innovative assessment strategies into our practice

Homes (2018) makes a strong case for assessment as engagement, particularly the use of continuous assessment and how it can drive learning. Some of the innovative continuous assessment practices we have used for Early Childhood Education and Social Care programmes include mock interviews with a panel of lecturers from their programme. This 'real' life scenario encouraged students to embed the theory of their modules with the practical experience of doing an interview for a position in an ECEC setting. Students had to prepare a CV, attend an interview, and complete a written reflection on their learning, post interview.

A second example is in the fourth year Social Care programme. In a capstone module with 100% continuous assessment, students had to complete a ten-minute role play with a peer on an intervention that they would use in a professional context. This was observed by classmates who gave feedback after the process. This was a powerful assessment process as learning became live in the classroom and embodied in practice. The written component involved the theoretical underpinning of the intervention, along with a critical reflection on the practice encounter. The learning was significant for the person completing the role play but also for the peer observers (as well as for the lecturers).

An overall approach to assessment that demonstrates our care-based approaches (including both formative and summative) will include: exploring and discussing assessment choices, sharing rubrics for success, encouraging ongoing discussion and clarification, providing timely and supportive feedback, encouraging students to engage with 'authentic assessment tasks' and processes, and animating ongoing assessment through discussion and peer review.

The importance of providing overview feedback on assessments completed, is also helpful and encourages assessment as learning. Feedback which acknowledges collective and individual achievement is also important (highlighting what has been done well, using a list of commendations and a list of areas for improvement). It is also really helpful to provide opportunities for students to discuss feedback and seek clarification regarding future assessment goals.

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Universal Design for Learning (UDL) is a framework that is applied to curriculum development, assessment, and teaching and learning strategies. It aims to enhance the learning experiences of all students by creating a flexible learning environment (Cornell University, 2022). Adapted from the more general principles of Universal Design, UDL in the sphere of education promotes learning that is open and accessible to all, without the need for specific accommodations for individual learners.

#### What is Universal Design for Learning?

Realising that a one-size-fits-all approach in education is not possible, CAST (2018) created a framework that recognises the diversity in learning communities and the challenges of meeting the needs of all learners. The framework consists of three principles, with accompanying guidelines that can be implemented in an educational context to create a more inclusive learning environment:

- Multiple means of Representation: sharing information in a variety of formats so that a learner can choose their preferred mode to access the material;
- Multiple means of action and expression: creating opportunities for learners to adapt materials in order to access them more fully, as well as allowing opportunities for learners to demonstrate their learning in more than one way, and interact with learning materials;
- Multiple means of engagement: identifying ways to motivate learners as well as developing autonomy as learners (CAST, 2018).

The need to support students with recognised disabilities or learning difficulties is well recognised and specific accommodations are provided to help them participate fully in university life. However, many learners from the wider student community also face learning challenges that can impact on their success. The benefits of making the learning environment more accessible for students with recognised disabilities or learning difficulties will also apply to the wider learning community.

#### Challenges facing international students

The application of UDL within higher education also offers benefits for international students who travel to Ireland to continue their education. Each of these students has a variety of needs and if supported, they can enjoy a rich and fulfilling educational experience abroad.

Although they have demonstrated competence in the language by achieving the standard required to study within our education system students still encounter challenges as they develop confidence and fluency in the target language. Additionally, they may experience challenges as they settle into a new culture and learning environment which can impact on their academic success. Academic work in their new place of study may be very different from practices in their home university.

The application of UDL would enhance the educational experiences of these students, while at the same time support all students undertaking the same programme (Burgstahler, 2013).

#### Academic skills

Academic literacy is a complex skill which students are expected to demonstrate to prove successful learning (Henderson & Whitelaw, 2013). International students often struggle with different academic practices in their new learning environment. This is particularly true in a new educational context which is very different to their own, where the application of critical thinking and referencing are often viewed in a very different manner (Henderson and Whitelaw 2013). Research has shown that students can be assisted by the provision of explicit learning strategies, which they can apply to their own learning (Hong-Nam & Leavell, 2006). This will also help them become more autonomous learners, a necessary characteristic of third level students.

#### The role of UDL

Multiple means of representation requires content material to be shared in a variety of formats, thus allowing the students to choose the medium that is best for their comprehension of the content. For example, a reading text may be the common support material shared, but a video allows them to hear the information, and view associated images. Students can review what they might have missed in a lecture or use the video for revision. Other examples include clarifying vocabulary through glossaries or ensuring students see the connection to background knowledge, or previous content.

Multiple means of action and expression allows students to do something with the content to make it more meaningful to them. Being able to alter the font and background colour of a document or create an audio file from a text can make material more accessible. Knowing how to use tools such as spell checkers, or providing writing scaffolds such as planners, assessment scaffolds, and sentence starters can help students demonstrate what they have learnt. The use of assessment choice may sometimes (but not always) be appropriate and could also be considered, keeping in mind that whatever the format, the same learning outcomes must be assessed. Providing feedback in both written and audio format also provides choice in how the student engages with responses to their assessment.

Multiple means of expression allows various methods to be used to stimulate interest, and motivate the learner, leading towards a more independent and autonomous learner. Students might work in groups, collaborating and sharing expertise. Planners and calendars allow them to become skilled in time management while scaffolds offer support in completing learning activities.

#### Examples of using UDL to meet needs international students in HE

Table 1 (on page 98) provides some examples of UDL approaches that could be adopted to support international students in a new learning environment. Strategies such as these will also assist all students in the learning group, creating a positive and supportive learning environment for the whole class.

#### Conclusion

The use of UDL creates a flexible learning environment, with more student-centred learning opportunities. This approach encourages students to become more involved in their own learning, leading to more success.

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CAST (2018) *The UDL Guidelines*. Available at <https://udlguidelines.cast.org/>

Cornell University Center for Teaching Innovation (2022) Universal Design for Learning Available at <https://teaching.cornell.edu/teaching-resources/designing-your-course/universal-design-learning>

Henderson, F. & Whitelaw P.A., (2013) Intercultural awareness and the global economy: Chinese students and academic literacy – a lesson larger than just paraphrasing *Development and Learning in Organizations: An International Journal*, 27 (5) pp. 7 -10.

Hong-Nam, K., & Leavell, A. (2006) Language learning strategy use of ESL students in an intensive English learning context. *System*, 34 (3) pp.399-415  
<http://dx.doi.org/10.1016/j.system.2006.02.002>

Table 1: Examples of UDL to solve international student problems but also assist and all students

Area	Need of international student	DL solution	Benefits of all students
<b>Multiple means of Representation</b>			
Lectures	Difficult to take in lecture content.	Make screencasts with captions of main points of lecture.	Students can review content in their own time, as often as they want, focusing on areas of difficulty.
	Unable to transfer learning or connect to previous knowledge.	Connect prior learning by recap and summary; identify key and critical points in content.	Students begin to see the connections between the different aspects of the content.
<b>Multiple means of Action &amp; Expression</b>			
Class Participation	Unfamiliar with topics to be covered in class and reluctant to take part in class activities.	Identify weekly topics using collapsed topics on Moodle to alert students of next topic to be covered in class so they can prepare before class.	Students can be prepared before the session, and are more able to participate in class activities and discussions.
Feedback	Students are not aware of meaning of feedback.	Provide feedback in different formats that can be accessible to students.	Students can access feedback in format that is meaningful to them.
<b>Multiple means of Engagement</b>			
Independent study	Unfamiliar with setting own goals.	Suggest amount of time per week for course study.	Students can get an idea of how to allocate time for individual study.
	Reading load is heavy, unsure what to look for in an article.	Provide guide questions for reading.	Students know what to focus on when reading.

# 41 Peer Review In Group Assignments Using Moodle Workshop

Mark O'Connor, Billy Madden & Dr. Matt Cannon  
TUS Midwest Departments of: Applied Science/Applied Social Sciences/Applied Sciences & Learning and Teaching

Full Title - Using Moodle Workshop to facilitate peer review in a group assignment

## Summary of Teaching & Learning Context

Moodle Workshop is one of a number of tools available to academics and technologists to use to foster peer on peer interactions, embedding graduate attributes such as professionalism and critical thinking, and has seen enhanced engagement by learners in group work settings.

To add context to this submission, a number of similar products used in Irish and international contexts are presented for comparison.

## Moodle Workshop

The peer review tool used at TUS is Moodle Workshop. Its main features are:

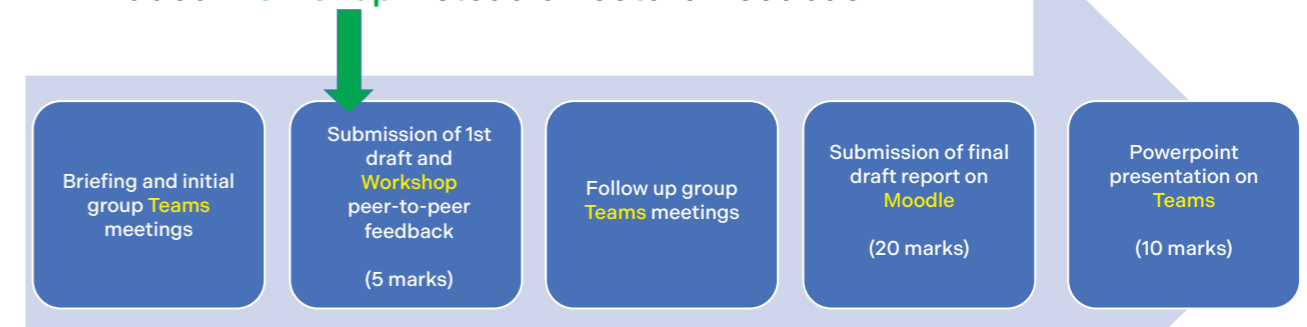
- Setup phase – Academic sets up the Moodle Workshop tool in their Moodle page
- Submission phase – Students can submit work for assessment by their peers
- Assessment phase – Students qualitatively and quantitatively assess each other's work
- Grading evaluation phase – Academic reviews submissions and assessments for final grades

Examples of views within Moodle workshop:

## Submission phase

Setup phase	Submission phase	Assessment phase	Grading evaluation phase	Closed
Switch to the setup phase	Current phase	Switch to the assessment phase	Switch to the evaluation phase	Close workshop
<ul style="list-style-type: none"> <li>✓ Set the workshop description</li> <li>✓ Provide instructions for submission</li> <li>✓ Edit assessment form</li> </ul>	<ul style="list-style-type: none"> <li>✓ Provide instructions for assessment</li> <li>✓ Allocate submissions</li> <li>expected: 23 submitted: 0 to allocate: 0</li> <li>ⓘ There is at least one author who has not yet submitted their work</li> <li>ⓘ Open for submissions from Monday, 6 February 2022, 9:00 AM (22 days left)</li> <li>ⓘ Submissions deadline: Thursday, 16 March 2022, 12:00 PM (26 days left)</li> <li>ⓘ Time restrictions do not apply to you</li> <li>✓ Switch to the next phase</li> </ul>	<ul style="list-style-type: none"> <li>ⓘ Open for assessment from Thursday, 16 March 2022, 12:01 PM (21 days left)</li> <li>ⓘ Assessment deadline: Thursday, 23 March 2022, 12:55 PM (26 days left)</li> <li>ⓘ Time restrictions do not apply to you</li> </ul>	<ul style="list-style-type: none"> <li>✓ Calculate submission grades</li> <li>expected: 23 calculated: 0</li> <li>✓ Calculate assessment grades</li> <li>expected: 23 calculated: 0</li> <li>✓ Provide a conclusion of the activity</li> </ul>	

## • Added Workshop instead of lecturer feedback



## • Done in order to promote online student interaction during Emergency Remote Teaching

Our case studies look at the use of Moodle Workshop in Level 7 and Level 9 settings.

## 2: SPARK – Self and Peer Assessment Resource Kit

SPARK developed by UTS in Australia, uses a sliding scale for students to review themselves and their peers in groupwork settings. The following benefits are observed:

### EFFICIENT FUNCTIONING OF GROUP

- Actively participated in group meetings, on time and came prepared
- Displayed enthusiasm and participation
- Performed their allocated tasks on time and at the agreed level of quality

### LEADERSHIP

- Motivated others to participate, built trust
- Offered practical and actionable (task-oriented) feedback
- Helped resolve conflicts sensitively through negotiation and compromise



**COMMENT ON Student X**  
 Make constructive comments here about Student X's overall contribution. Particularly if you rated them low or high on criteria. Only teaching staff can see these comments.

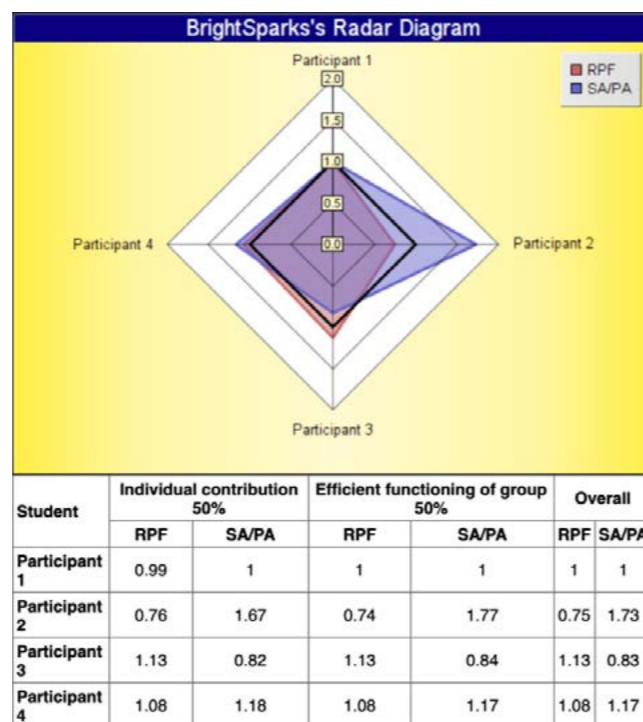
X was very helpful during our team meetings and always came prepared. She was a great listener and offered great advice when we got stuck on the details – she really helped us stay on track!

Qualitative and quantitative feedback among students provides insights to academics on how each student performed within the group.

Through use of the Relative Performance Factor (RPF) and Self Assessment compared to Peer Assessment (SA / PA) scores, students can get a more informed perspective on their own performances relative to their peers.



Where appropriate, academics can award higher marks to students who are clearly going above and beyond, or conversely deduct marks from those who didn't contribute sufficiently.

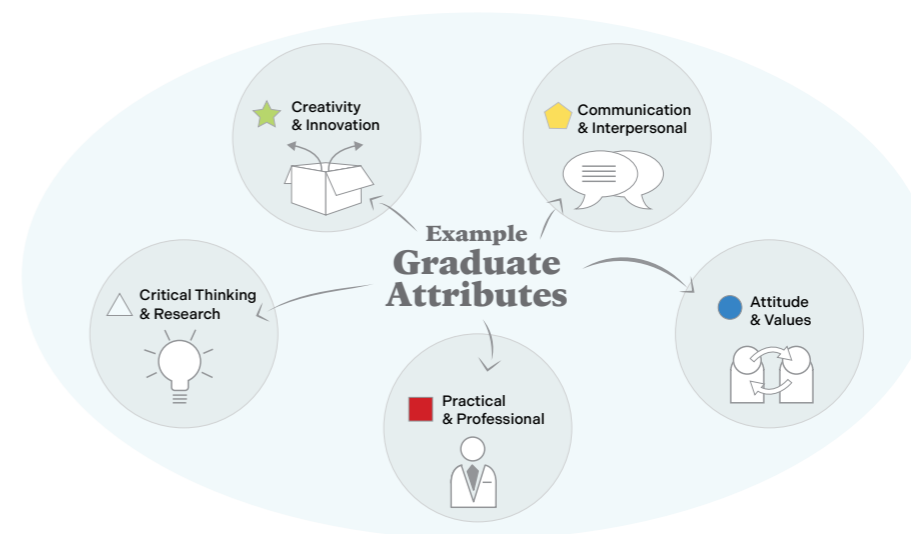


## 3: REVIEW

WHAT is review? REVIEW is a web-based Assurance of Learning (AoL) solution, allowing Universities to automate marking of criteria-based assessment of students, formulated by program learning goals and graduate attributes.

Slider \*  F P C D HD

Slider \*  F P C D HD



## 4: PEERWISE

PeerWise is an online resource that allows students to create and to explain their understanding of course related Multiple-Choice Questions (MCQs) and to answer and discuss questions created by their peers. There is also a degree of gamification involved with students earning numerous badges based on their level of interaction with PeerWise.

**PeerWise**  
 Concepts in Chemistry 2021

You are logged in as **billy** [Logout](#)

[Home](#) | [Main menu](#)

Congratulations! You have just earned **10** new badges! [View my badges](#)

**Reputation score**  
 959  
 Questioning: 58  
 Answering: 46  
 Rating: 18

**Answer score**  
 96

**Your questions**  
 You are currently contributing **4** questions  
 You have deleted **0** of your questions  
 There are **4** new comments about your questions [view...](#)

**Answered questions**  
 You have answered **10** questions (of these, **1** has been deleted by the author)  
 You have written **6** comments about these questions

**Unanswered questions**

**Case Study 1:**  
**Use of Moodle Workshop for Level 7 Group Assignment**

Moodle Workshop was integrated into an existing group assignment in a second-year module where groups of 3-4 students had to prepare a report and presentation on specific topics but working to the same assignment brief. Moodle Workshop allowed groups to give and receive feedback on rough drafts of each other's work.

As well as assisting students in improving their assignments prior to submission, Workshop also allowed students to experience peer assessment in a structured environment. Informal feedback from students on the experience was very favourable and the participants benefitted from the opportunity to engage in peer assessment.

**Lecturer Reflection:**

Setting up a Moodle Workshop activity is relatively easy but take care to pick all the correct options at the outset. Piloting with colleagues is strongly recommended to avoid issues down the line. Prior to using Moodle Workshop, the lecturer provided feedback on rough drafts of each groups report. Replacing this with peer feedback was a liberating experience that proved beneficial for everyone involved.

PeerWise is an online resource that allows students to create and to explain their understanding of course related Multiple-Choice Questions (MCQs) and to answer and discuss questions created by their peers. There is also a degree of gamification involved with students earning numerous badges based on their level of interaction with PeerWise.

**Case Study 2:**  
**Use of Moodle Workshop for Level 9 Group Assignment**

In this case the Moodle Workshop was used to engage a group of staff and students who were preparing research proposals as part of an interdisciplinary Level 9 module in Research Methods. The central aim of using the workshop was not only to get the participants to complete a draft of a PhD or Post-Doctoral research proposal, but also to allow space for interdisciplinary discussions of the methods used which could allow for building networks for future collaborations.

The module took place during COVID restrictions and resulted in the need to use innovative tools to promote discussions and engage students. As Moodle is the central Learning Management System (LMS) used by TUS, the workshop provided a natural complement to the recorded lectures and 'live' online discussions. The workshop allowed for asynchronous sharing of material as well as a space for peer review that could be structured by the lecturer. Embedded in the Moodle Workshop is the ability to quantify / grade the work of others; however, in this case study the main emphasis was placed on qualitative feedback.

**Lecturer Reflection:**

The Moodle workshop tool provided an online space for exchange of work and group feedback in a way that could be managed by the lecturer. However, before using the workshop with a group a few points should be considered. First the interface has many options and using them can be problematic until you understand the way each step works (setting-up and defining rubrics, distributing work between participants, and releasing final feedback).

Make sure the participants have a clear understanding of how the feedback and the possible scoring will or will not impact their overall assessment. For this group I found it easier to just rely on the qualitative feedback and asked the group to ignore any scoring or quantitative feedback. It is also good to trial and experiment with the workshop ahead of time as timing each phase and releasing feedback requires some familiarity with the tool. Finally, I found it useful to have a few participants who could give feedback quickly on what was visible to the participants. Once these are considered the workshop tool can be an extremely useful way to engage groups in peer review through online methods.

**Conclusions:**

Considering the range of possibilities with Moodle Workshop and similar products, effective uses can be derived using these tools including:

- Using course intended learning outcomes and graduate attributes as assessment criteria.
- Focusing the minds of students on producing work worthy of review by themselves, their peers and their educators sees greater engagement in individual and group settings.
- Following up with students during and after assessment, academics can ensure good engagement.

**Relevant Resources**

- Moodle Workshop:  
[Moodle Workshop Activity - YouTube](#)  
[Workshop: Peer review - YouTube](#)
- Moodle Workshop:  
[Workshop activity - MoodleDocs](#)
- Peerwise:  
[PeerWise \(auckland.ac.nz\)](#)  
[PeerWise - Collaborative student learning - YouTube](#)
- SPARK:  
[SPARKPlus: moderating group work assessment - UTSONline Help](#)
- Review:  
[REVIEW | Gradebook Software | Online Marking Tools | Academ](#)
- Review:  
[REVIEW - The Future of Assessment](#)
- Staff training session by Mark O'Connor:  
[September Staff Support Programme-20210903\\_140150-Meeting Recording.mp4](#)
- Video  
[Discussion by the authors of this paper](#)



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, LIT.

#### Summary of Teaching & Learning Context

Subject domain, group size, stage of programme (year 1, 2, 3, 4)

The inclusion of the Final Year Projects 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. Over all 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. Since the initial proposition to examine the Final Year Project as an active learning strategy with a solid contribution to teaching pedagogy the authors have now initial research findings to share and disseminate. Subsequently since the initial concept to examine this research area we have pilot tested the third- and fourth-year Faculty of Business & Humanities students from across multiple subject areas. While not exhaustive as other degree programme do exist, it resulted in 188 replies to our survey spread across the marketing, enterprise, innovation and applied social science discipline spectrum. For the first ever we now have factual evidence of the final year project as experienced by our undergraduates.

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.

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.

#### Brief rationale for why you use this learning approach

The project foresees the support 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.

#### Brief survey findings to date:

From the survey replies a snapshot of the FYP experience is revealed from the respondent replies below:

- 87% of respondents understood the weightings and word requirements of the FYP milestones.
- Just 55% of FYP student indicated that the FYP process is mostly or completely clear to them as a student.
- 73% of FYP/Dissertation students are confident about their choice of FYP/Dissertation topics they are pursuing.

- 74% of the FYP students indicated that they were happy (agreed or strongly agreed) with their choice of FYP topic.
- 81% indicated that their FYP/Dissertation topic is linked to their potential career or further studies.
- 83% of FYP students have follow up meetings with their Supervisors and also understand the FYP proposal feedback received.
- 67% indicated that the literature review was very clear to them...69% agreed or strongly agreed that the literature review helped them in confirming the topic for their FYP Dissertation.
- 83% indicated the literature review helped the student to engage further in their chosen FYP/Dissertation topic.
- Only 40% of FYP students utilise the exciting FYP log book.
- Just 29% engaged in self-reflection of their FYP/Dissertation topic.
- 70% think that self-reflection could be of help in the FYP/Dissertation process.
- 67% believe online self-reflection tool would help in the FYP/Dissertation process.

#### Observations & Reflections

This project aligns with TUS Midwest (formerly LIT's Teaching and Learning Strategy) by aligning with many of its higher-level principles. These principles are also now reflected in the new draft strategy for learning, teaching and assessment at TUS-MMW:

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

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# 43 Library Resources For Active Learning (Online Library Guide)

TUS Library Midwest  
Compiled by Library Team, TUS Midwest

The Library guide, Library Resources for Active Learning is aimed at academic staff, interested in accessing and evaluating a range of recommended resources for the development of learner-centred active learning initiatives in their classrooms and beyond.

The guide aligns with the Library's overall teaching and learning strategy, which incorporates critical thinking, and is based on the principles of information literacy - 'a set of skills and abilities which everyone needs to undertake information-related tasks; for instance, how to discover, access, interpret, analyse, manage, create, communicate, store and share information' (CILIP, 2018).

Drawing on The Compendium of Active Learning: strategies for student engagement, Vol. 1 (Ryan, 2021), this guide contains a definition of active learning, and looks at some examples of educational theories, methods, and frameworks in terms of putting active learning into practice.

The main focus of the guide is on providing listings of national and international resources for active learning enthusiasts and practitioners involved in teaching and assessment in further and higher education. Links to the following types of materials are provided:

- Books;
- eBooks;
- Online journals;
- Websites
- TED Talks.

Topics range from practical teaching and pedagogy to active, interactive, reflective and experiential learning. Face to face, digital, online, technology enhanced and blended approaches to instruction are covered. Many of the resources focus on initiatives for introducing innovation, engagement, creativity and fun into learning and assessment spaces.

Library Resources for Active Learning is a 'living document' that can be continually edited and updated as new materials come on-stream and are adopted and adapted by practitioners based on user needs.

Suggestions and recommendations for additional resources are very welcome. Contact us at [library@lit.ie](mailto:library@lit.ie)

Link to our TUS MW Library Guide:  
<https://lit.libguides.com/c.php?g=699308>

CILIP (2018) *CILIP definition of information literacy 2018*. Available at: <https://infolit.org.uk/ILdefinitionCILIP2018.pdf>

Ryan, M.F. (2021). [LIT Compendium of Active Learning Strategies for Student Engagement, LIT.](#)

## Further Resource List

Broderick, T. (2021) *Active learning - putting active learning into practice*. Available at: <https://youtu.be/z3HugXB4Rko>

Carr-Chellman, A. (2010) *Gaming to re-engage boys in learning*. Available at: [https://www.ted.com/talks/ali\\_carr\\_chellman\\_gaming\\_to\\_re\\_engage\\_boys\\_in\\_learning](https://www.ted.com/talks/ali_carr_chellman_gaming_to_re_engage_boys_in_learning)

DeWitt, T. (2012) *Hey Science teachers - make it fun*. Available at: [https://www.ted.com/talks/tyler\\_dewitt\\_hey\\_science\\_teachers\\_make\\_it\\_fun](https://www.ted.com/talks/tyler_dewitt_hey_science_teachers_make_it_fun)

Finley, T. (2019) Brain Blast active learning strategies [Twitter] 19 December. Available at: <https://twitter.com/finleyt/status/1207691962075222017>

Green, J. (2015) *The nerd's guide to learning everything online*. Available at: [https://www.ted.com/talks/john\\_green\\_the\\_nerd\\_s\\_guide\\_to\\_learning\\_everything\\_online](https://www.ted.com/talks/john_green_the_nerd_s_guide_to_learning_everything_online)

Guzman, G.E. (2013) *Active learning*. Available at: <https://youtu.be/dwxmPrBdlcQ>

Luen-Yang, G. (2016) *Comics belong in the classroom*. Available at: [https://www.ted.com/talks/gene\\_luen\\_yang\\_comics\\_belong\\_in\\_the\\_classroom](https://www.ted.com/talks/gene_luen_yang_comics_belong_in_the_classroom)

Musallam, R. (2013) *3 rules to spark learning*. Available at: [https://www.ted.com/talks/ramsey\\_musallam\\_3\\_rules\\_to\\_spark\\_learning](https://www.ted.com/talks/ramsey_musallam_3_rules_to_spark_learning)

Robinson, K. (2006) *Do schools kill creativity?*. Available at: [https://www.ted.com/talks/sir\\_ken\\_robinson\\_do\\_schools\\_kill\\_creativity](https://www.ted.com/talks/sir_ken_robinson_do_schools_kill_creativity)

Ryan, M.F. (2022). *Groupwork in Higher Education: A Practitioner's Guide*. Department of Quality Teaching and Learning, TUS MW.

Sprouts (2020) *The active learning method*. Available at: <https://www.youtube.com/watch?v=xxVxgQJwV7w>

ViewSonic (2019) *What is active learning? and why it matters*. Available at: <https://www.viewsonic.com/library/education/active-learning-matters/>

## Key Library Resources - Books

Bain, K. (2004) *What the best college teachers do*. Cambridge, Massachusetts: Harvard University Press.

Bean, J.C. & Melzer, D. (2021) *Engaging ideas: the professor's guide to integrating writing, critical thinking, and active learning in the classroom*. 3rd edn. San Francisco: Jossey-Bass.

Beetham, H. & Sharpe, R. (2013) *Rethinking pedagogy for a digital age: designing for 21st century learning*. 2nd edn. London: Routledge.

Biggs, J. & Tang, C. (2011) *Teaching for quality learning at university: what the student does*. 4th edn. Maidenhead: Open University Press.

Bozalek, V.; Ng'ambi, D.; Wood, D.; Herrington, J.; Hardman, J. & Amory, A. (eds.) (2017) *Activity theory, authentic learning and emerging technologies: towards a transformative higher education pedagogy*. London: Routledge.

Brookfield, S. (2017) *Becoming a critically reflective teacher*. 2nd edn. San Francisco: Jossey-Bass.

Creekmore, J. & Deaton, S. (2015) *The active learning classroom strategies for practical educators*. Stillwater: New Forums Press Inc.

Dana, N.F. & Yendol-Hoppey, D. (2019) *The reflective educator's guide to classroom research: learning to teach and teaching to learn through practitioner inquiry*. 4th edn. California: Thousand Oaks.

Howell Major, C.; Harris, M. & Zakrajsek, T. (2021) *Teaching for learning: 101 intentionally designed educational activities to put students on the path to success*. 2nd edn. London: Routledge.

Jordan, A.; Carlile, O. & Scott, A. (2008) *Approaches to learning: a guide for educators*. Maidenhead: Open University Press.

Kolb, D. (1984) *Experiential learning: experience as the source of learning and development*. Englewood Cliffs: Prentice Hall.

Moon, J. (2004) *A handbook of reflective and experiential learning: theory and practice*. London: Routledge.

Moore, S.; Walsh, G. & Risquez, A. (2007) *Teaching at college and university: effective strategies and key principles*. Maidenhead: Open University Press.

Race, P. (2020) *The lecturer's toolkit: a practical guide to assessment, learning and teaching*. 5th edn. London: Routledge.

Salmon, G. (2013) *E-tivities: the key to active online learning*. 2nd edn. London: Routledge.

Wiemann, C.E. (2017) *Improving how universities teach science: lessons from the Science Education Initiative*. Cambridge, Massachusetts: Harvard University Press.

#### E-Books

Bain, K. (2021) *Super courses: the future of teaching and learning*. Princeton, New Jersey: Princeton University Press (Skills for Scholars). Available at: <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=nlebk&AN=2618130&scope=site>

Baepler, P.; Walker, J.D.; Brooks, D.C.; Saichaie, K. & Petersen, C. (2016) *A guide to teaching in the active learning classroom: history, research, and practice*.

Fornari, A. & Poznanski, A. (eds.) (2021) *How-to guide for active learning*. Cham.: Springer International Publishing AG. Available at: <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=cat05979a&AN=lit.199506&scope=site&custid=s3335341&groupid=main&profile=eds>

Misseyanni, A.; Lytras, MD.; Papadopoulou, P. & Marouli, C. (eds.) (2018) *Active learning strategies in higher education: teaching for leadership, innovation, and creativity*. Bingley: Emerald Publishing Limited. Available at: <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=cat05979a&AN=lit.199504&scope=site&custid=s3335341&groupid=main&profile=eds>

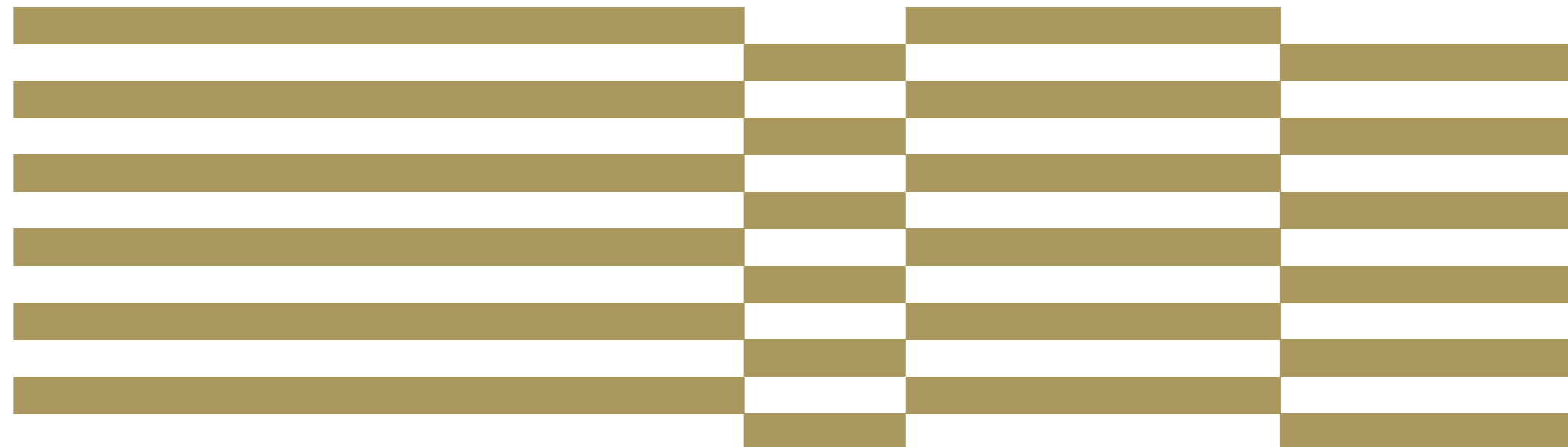
Nash, R. (2019) *The interactive classroom: practical strategies for involving students in the learning process*. Thousand Oaks: SAGE Publications. Available at: <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=cat05979a&AN=lit.199499&scope=site&custid=s3335341&groupid=main&profile=eds>

Pepper Rollins, S. (2017) *Teaching in the fast lane: how to create active learning experiences*. Alexandria: Association for Supervision & Curriculum Development. Available at: <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=cat05979a&AN=lit.199505&scope=site&custid=s3335341&groupid=main&profile=eds>

Sterling, Virginia: Stylus Publishing. Available at: <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=nlebk&AN=1898936&scope=site>

#### Online Journal

*Active Learning in Higher Education*  
An international, refereed publication for all those who teach and support learning in higher education and those who undertake or use research into effective learning, teaching and assessment in universities and colleges.



To view the online version of the Compendium and to access the 'Compendium References and Hyperlinks' document, visit [bit.ly/TUSCompendium2](https://bit.ly/TUSCompendium2) or scan this QR code.



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