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AI detection and academic integrity

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Question: Can you give me an example of when something really good *had one significant flaw?*

In the 1930s, the Australian government launched a series of initiatives designed to promote farming of sugarcane. It made sense. Sugarcane was in *high demand globally*, and was a crop *perfectly suited* to the climate of Queensland and New South Wales. It was also *delicious*.

But sugarcane had a *bug* in the system. A bug called the 'grey-backed cane beetle'. This bug fed off the sugarcane – so the more sugarcane there was, the more bugs there were too. And this was a problem, because while Australians wanted all the good things about sugarcane, they didn't want the bugs.

Question: Can this example help us understand the 'problem' of generative AI?

Well, in many ways the dilemma faced by Australia in relation to sugarcane is comparable to the dilemma universities face in relation to generative AI.

Technological skills are *in high demand globally*: the ability to harness the power of technology is a huge advantage in the workplace, and whether we like it or not our students will be at a disadvantage if they are not equipped to make effective use of AI (Morandini *et al.*, 2023).

Universities are a *perfect environment* to both harness and teach effective use of AI: platforms like ChatGPT offer easy access to vast avenues of information, but evaluating and applying that information effectively demands exactly the kind of 'highly developed self-regulated learning (SRL) skills' universities specialise in teaching (Markauskaite *et al.*, 2022, p .3).

And is it *delicious*? Well, in a less literal sense maybe. You can certainly get some good cake recipes from it (Ramsha, 2023).

It certainly has a figurative *bug* though. Because just as technology has enabled many new avenues for teaching and learning, it has also enabled new avenues for cheating. While it is great that I can ask ChatGPT to sort out my assignment workload into manageable chunks – what is to stop me asking ChatGPT to just write the assignment itself?

Question: So how did Australia fix their problem?

Quite logically, Australia looked for a solution that matched the problem. The problem was that the grey-backed cane beetle ate the sugar cane. But nothing was eating the grey-backed cane beetle. They needed a natural predator that would eat the beetle and balance the population.

Like the cane toad.

Cane toads eat insects. Introduce them to the cane plantations, and they will eat the

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beetle. The beetle population will be controlled and the sugarcane economy saved.

Question: Sounds great! So what kind of solution would match the problem of AI cheating?

Generative AI works by using Large Language Models (LLMs) that analyse the probability of certain words, phrases or sentence structures being used in certain contexts. For example, if a specific model had access to lots of my writing, it could use probability models to determine exactly how I might respond to any given question.

Question: How can you describe AI as delicious? (Response [chances of facetious answer relating to cake: 27.4%]: It can tell me cake recipes.)

Logically, we could use those same LLMs to reconstruct the probability that text has been created by AI. A statistical analysis of my writing might tell you that 27.4% of my answers are facetious, and relating to cake. However, human language is never perfectly predictable in this way.

An analysis of all my writing may suggest an *average* of 27.4% cake-related humour, but the chances all my future writing will contain *exactly* 27.4% cake-related humour are almost nil. And why? Because I am not a computer. I change on a daily basis, and am subject to an infinite variation of external influences.

If an LLM predicts 27.4% cake-related humour, and my essay contains *exactly* 27.4% cake-related humour – my essay was most likely written by a computer. Only a computer would be that predictable.

This is the logic that underpins AI detection platforms – like Turnitin, GoWinston, Content at Scale, Compilatio, *etc.* These platforms use the same kind of language models as AI, to identify the probability that an essay was written by AI or by a human.

Question: Well, this all sounds great! An AI solution to an AI problem! Just like the cane toad and the beetle!

Hm.

Question: You don't sound so sure?

When the Australians introduced the cane toad, they assumed it would eat the beetles – but things didn't quite work out as they intended. It turned out that the beetles were able to escape the toads easily, by just climbing to the top of the sugarcanes. Since the toads couldn't climb, they couldn't reach the beetles.

Instead, the toads ate other insects, and because the toads produced a deadly toxin they ended up causing all sorts of damage to other species – ones that were not causing any problems at all.

And in the meantime, the beetles continued to thrive.

Question: So in this analogy, the beetle is AI cheating and the toad is AI detectors?

Potentially, yes. The problem with the cane toad was that it did not target the problem with enough accuracy – so the problem was not solved. The same potential exists with AI detectors. The accuracy of AI detectors has been measured as varying between 33% and 76%, and as 'neither accurate nor reliable' (Weber-Wulff *et al.*, 2023). Other studies have demonstrated that 'state-of-the-art detectors cannot reliably detect LLM outputs in practical scenarios', and that AI detectors can be easily evaded with simple paraphrasing (Sadasivan *et al.*, 2023).

With such a wide margin for error it is very difficult for AI detectors to target cheating with any certainty. It is even more difficult for AI detectors *alone* to accumulate the kind of evidence that would satisfy an academic offences panel.

This margin for error is likely to increase further with the next iteration of generative AI, when the AI will be able to reproduce more consistently human-sounding language (Adewumi *et al.*, 2022). The very indicators that AI detectors are already

struggling to find will soon be even harder to detect. Meanwhile, those who wish to use AI to cheat can continue to easily evade the detectors.

Even Turnitin – the platform with one of the most accurate AI detectors – have recently admitted that 'real-world use is yielding different results from our lab'. They now advise that match results below 20% are likely to produce 'false positives' (Chechitelli, 2023).

Question: But I thought Turnitin was 98% accurate, and was identifying millions of AI-generated essays?

True, Turnitin did say that we could use its AI detection reports 'with 98% confidence' and that they 'only flag something as AI-written when we are 98% sure it is written by AI' (Turnitin, 2023a). However, more recently they have removed these claims from their websites and replaced them with the statement they 'might flag a human-written document as AI-written for one out of every 100 fully-human written documents' (Turnitin, 2023b).

It is true, as well, that Turnitin have claimed more than two million essays have been identified as partly written by AI (Kuykendall, 2023). However, this is just 3% of the total number of essays reviewed – and 1 in every 100 of those we now know may be a false positive.

Question: Ok, so AI detectors are not accurately targeting the problem and there is a wide margin for error. But surely it's better than nothing?

Possibly not. Remember that the cane toad ended up causing multiple other problems that were equally as damaging as the original. The toad did not target the real problem, but by introducing it many other problems were created.

In the same way, AI detectors can be easily evaded by cheaters but can create many more problems for people who are not cheaters.

The most obvious of these are non-English speakers. Students writing with English as their second language tend to demonstrate 'restricted linguistic variability and word choices characteristic' – and studies have shown this absence of linguistic variance leads to an average false positive rate of 61.22%. That means 61% of original essays by students with English as a second language was flagged by AI detectors as being 'AI generated'. When those same essays were passed through AI ('enhance the word choices to sound more like that of a native speaker'), the number of false positives dropped to 11.77% (Liang *et al*., 2023).

In other words, AI detectors are more likely to falsely accuse non-English speakers than they are to identify cheaters. But there are other problems to consider. The additional workload added to teachers, assessors, and academic offences teams is likely to be very significant – and hugely disproportionate to the potential benefits. Turnitin report that 9.6% of all assignments submitted to them have over 20% of AI writing. Based on their own guidance, this means that 9.6% of assignments will end up being investigated for AI-generated writing (Chechitelli, 2023). As we have already discovered, this is not a simple task. It requires:

- An in-depth analysis of the results
- The collation of additional evidence and possibly…
- The organisation of a viva with the student.

A recent survey published by *The Tab* shows that around 360 cases of AI cheating had been investigated in UK universities using AI detection, of which only around 132 (37%) resulted in an actual penalty (Snepvangers, 2023).

So in 63% of cases investigated, positive AI detection was insufficient to prove academic misconduct.

Question: So we just do nothing then?

Well, no. There are things that markers *can* do to spot AI-generated writing without the need for AI detection software. Some of the more 'tell-tale' symptoms of AI-generated academic writing are often quite basic and easy to spot. The datasets on which LLMs are built are often riddled with factual inaccuracies (Nature Machine Intelligence, 2023), and 'if asked to write an academic paper, they make up fictitious citations' (Stokel-Walker and Van Noorden, 2023). These kinds of errors are things that most markers are likely to identify with or without AI detection tools.

However, a longer-term solution might be to think about how we teach and assess students.

Since the arrival of the internet, Higher Education appears to have been fighting hard to protect itself *against* the world – rather than preparing students *for* the world: finding ways to stop students using all the tools that would be readily available to them after they graduate – from Google, to spell checkers and translators. AI is just the latest in a series of technologically-driven changes that widen the Education gap between knowledge demonstration (assessment processes) and knowledge application (how that knowledge is used in the 'real world') (Mollick and Mollick, 2022).

In many ways, AI detection software equates to inaction. It allows us to believe we can carry on as we are. That the technological arms race between Education and the 'Outside World' - the fight between AI generators and AI detectors - will maintain the tenuous *status quo* of a Knowledge Cold War.

There are alternatives. It is possible to reshape education to better suit the world: to emphasise 'process rather than artificially contrived outputs' (Moscardini *et al.*, 2022); to equip students for information indeterminacy, rather than absolutism (Bearman and Ajjawi, 2023); to focus on a Capability approach to our learning design (Carvalho *et al.,* 2022), and authenticity in assessment (Advance HE, 2023).

Australia still has a problem with the cane beetle destroying sugarcanes. They have tried pesticides, different farming cycles and all sorts – but the problem remains. They now have a problem with the cane toad as well – and are in a continual battle to control the spread of the cane toad population.

Some wars will never be won or lost. You can't change the outcome.

But you can change the crop.

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Supporting critical thinking through purposeful classroom talk

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Background

This research started with a conversation between the authors at a staff development event where colleagues were designing teaching activities to develop higher-order thinking skills using a Critical Thinking Skills Toolkit (Wason, 2016) (see Table 1). Critical thinking is underpinned by the use of appropriate classroom discourse. However, the lack of a common language about what critical thinking means between educators and students is evident, and is supported by our own observations about how the toolkits were being used in practice (Danzak *et al.*, 2017). We felt that the link between students' use of the toolkit and teachers' pedagogy around the toolkit had been neglected, causing a lack of understanding about appropriate teaching practices to support its use.

We agreed that the university classroom is a unique site for exploring a dialogic teaching method for critical-thinking skills' development because it provides students and teachers with the opportunity to discuss, explain and build on ideas in a cooperative and supportive environment (Alexander, 2020). However, there are few studies (e.g. Heron *et al.*, 2021) about the use of dialogic pedagogy in the higher education sector. This led us to consider whether dialogic pedagogy could support colleagues to use the toolkit in the classroom and provided the rationale for this study. Our privileged position as educational developers helped us explore and understand teachers' learning and teaching experiences.

Tool	Aim	Critical thinking skill(s) developed	Year introduced
The source	To develop search terms, find, critique materials whilst considering credibility, reliability and appropriateness.	Information seeking	1
Critically listen	To develop active listening skills, interpret key concepts and theories from your lectures, seminars and tutorials.	Interpretation, evaluation	1
Critically speak	To develop your academic and professional oracy skills.	Interpretation, analysis, evaluation, inference, explanation	1
Read right	To read in a systematic way, understand and make notes.	Interpretation	1
Practitioner insights	To interpret, analyse and evaluate practitioner materials.	Interpretation, analysis and evaluation	1
The argument	To develop the technique of understanding and creating an argument.	Interpretation, analysis, evaluation, inference explanation	1
The case	To develop the skills needed when approaching a case study.	Interpretation, analysis, evaluation, inference explanation	1
The critique	To identify key themes within academic papers and critique them.	Interpretation, analysis, evaluation and inference	2
The thematic analysis grid	To record themes within academic papers in order to be able to compare and contrast.	Evaluation and inference	2
The argument map	A visual method of recording themes within a set of academic papers.	Evaluation and inference	3
The critically reflective discussion	To develop critical reflection in action. To orally reflect on discussions, draw on knowledge in the moment, provide a debrief and recommendations.	Interpretation, analysis, evaluation, inference, explanation	3
The critical reflection	To develop views on academic literature and to record how this view has changed given further reading and debate.	Evaluation, inference and explanation	3
Critically write	To write a critical review of literature whether it is academic or practitioner.	Evaluation, inference and explanation	3
Critically connect	To make connections between each of the CT tools and how they are used.	Information seeking, interpretation, analysis evaluation, inference, explanation	3

Table 1 The Critical Thinking Skills Toolkit (Wason, 2016)

Literature

The challenges of defining and teaching critical thinking can provide barriers for educators to transform students' critical-thinking development (Abrami *et. al,* 2015). We have used Facione's (1990) definition of critical thinking because it underpins the design of the Critical Thinking Skills Toolkits (Wason, 2016). Critical thinking is a set of skills and dispositions which develop 'purposeful, self-regulatory judgement which results in interpretation, analysis, evaluation, inference and explanation, as well as an analytical disposition and the ability to self-regulate and reflect on learning' (Facione, 1990, p. 2).

A meta-analysis by Abrami *et. al,* (2015), recommends teaching critical thinking explicitly within disciplinary curriculum as the most successful approach because educators and students can become more aware of their way of thinking within the context of their subject. However, more empirical evidence is needed to understand how the range of teaching approaches identified by Bezanilla *et al.* (2019) can enhance critical-thinking development. Studies in a school context (e.g. Alexander and Hardman, 2017) have found evidence of higher educational outcomes where students and teachers use classroom discourse to develop metacognitive awareness (Hennessy *et. al*, 2021). Using Cui and Teo's (2021, p. 187) argument that dialogic teaching is viewed as 'a viable approach to develop students' thinking and knowledge', we advocate that dialogic teaching could achieve similar outcomes in an HE context and support the use of the Critical Thinking Skills Toolkit (Wason, 2016).

Our study was informed by Alexander's (2020) principles of dialogic teaching:

- *Collective*: Participants work together on learning tasks
- *Reciprocal*: Participants listen, share ideas and consider other views
- *Supportive*: Learners express their ideas freely, without fear of making mistakes. They collaborate to reach common understandings

- *Deliberative*: Participants discuss and seek to settle different viewpoints. They reason and justify their perspectives
- *Cumulative*: Learners develop further the oral contributions of others and connect them into coherent lines of thinking and understanding
- *Purposeful*: Classroom talk, has specific learning objectives and is open, dialogic, yet planned and structured.

Finally, drawing on studies about engaging learners in dialogue (e.g. Brookfield and Preskill, 2012), we hoped this study would offer insights into how a series of professional development workshops could help HE teachers use the Critical Thinking Skills Toolkit (Wason, 2016) within a dialogic teaching approach. Our existing Community of Practice model (CritTALK) was designed around Thompson, Kriewaldt and Redman's (2020, p. 88) five features of an effective professional development model: it is based on trusting professional relationships, provides opportunities for reflection on practice, is personalised to the needs of individual teachers, has meaningful evidence-based content, and runs over a sustained period. This provided us with a ready-made forum to conduct the research.

Project outcomes

The aims of this small exploratory case study were to:

- Explore teachers' understanding of dialogic pedagogy
- Examine the extent to which dialogic pedagogy could support teachers to use the Critical Thinking Skills Toolkit (see Table 1) in the classroom
- Develop resources to support teachers to use a dialogic teaching approach to teach critical-thinking skills.

Research design

This research was supported by a SEDA small grant. Data was collected between 2020-21 using a planned scheme of academic development activities using the CritTALK community of practice (see Table 2). The aim of the workshop programme was to develop teachers' understanding of dialogic pedagogy and develop their self-efficacy and skills. A total of nine teachers from CritTALK agreed to participate in the research. They worked at the same higher education research site in a range of disciplines and taught students at both undergraduate and postgraduate levels. While some participants had previously attended workshops on critical thinking given by the first author, some were new to the content of the programme. Trust and goodwill had already been built using this model and recruitment took place voluntarily from this group. Data collection was impacted by the pandemic which meant that we had to conduct both the professional development workshops and focus groups online. Due to the researchers' insider position, and to provide a safe space for teachers to evaluate their understanding, a research assistant carried out the focus group interviews. Data collection is illustrated in Table 3. Ethical approval was granted at the research site.

Session 1	Dialogic teaching: six principles of dialogic teaching and dialogic teaching repertoires Critical Thinking Toolkit – The critique
Session 2	Dialogic teaching: questioning and extending and appropriate language Critical Thinking Toolkit – The argument
Session 3	Dialogic teaching: discussing, deliberating and arguing/language/ground rules for discussion Critical Thinking Toolkit – The Case
Session 4	Dialogic teaching: dialogic feedback talk Critical thinking feedback as process
Session 5	Review of content and self-reflection Preparation of materials and activities

Table 2 Overview of workshop content

Data collection	Purpose
Pre- and post-workshops survey (Pre-workshops survey n=9)	To explore how teachers' understanding of critical thinking and dialogic teaching has developed over time To explore how teachers use the Toolkit and the development of their teaching
Focus group interviews (x3)	To explore developing understanding of the key concepts To explore experiences of the workshops and the learning
Post-lesson reflections (n=2)	To explore how teachers use the ideas from the workshop in their teaching To identify how teachers underpin their teaching of critical thinking with a dialogic teaching approach/incorporate principles of dialogic teaching

Table 3 Data collection

Findings

In this section we highlight the themes identified in the focus group interview data (Braun and Clarke, 2022) and we discuss these with reference to the main aims.

Teachers' understanding of dialogic pedagogy

The study's first aim was to explore teachers' understanding of dialogic pedagogy. By participating in the workshops and trying out the activities, participants said they had developed more awareness about what dialogic teaching meant, how to use it explicitly in their teaching and to identify what support students might need. One participant commented:

> *'Dialogic teaching has just made me think more consciously about getting the students engaged in the classroom discussions in some way.'*

Another participant reported that through the process of sharing their own examples of dialogic teaching they had

developed their own metacognition about their teaching approaches:

> *'I think it's one of those things that you kind of maybe have been doing implicitly but without really realising it.'*

Furthermore, there was evidence of how Alexander's (2020) principles of dialogic teaching were being used. In one example, a participant realised the importance of purposefully planning dialogic activities within their teaching schedule and using specific tools which help scaffold the dialogue for students:

> *'It's not just, you know, being in a room and saying, oh, tell me what you think you know, which is what I do a lot. You can't just rely on the ad hoc engagement.'*

However, participants also highlighted the challenges they experienced when using dialogic teaching online and the relevance of dialogic teaching as a spoken, face-to-face interaction:

> *'It's just this layer of online teaching has made that difficult because they're not talking to each other in the break or they're not sharing ideas, you know, after class or whatever.'*

The extent to which dialogic pedagogy and resources could specifically support colleagues to use the toolkit in their classrooms is now discussed.

Dialogic teaching as an enabler for using the Critical Thinking Skills Toolkit

Participants explained that over the duration of the study, they had used dialogic teaching hand in hand with the toolkit in their different disciplinary contexts. For example, one participant explained the benefits of this approach from the students' perspective, and how using dialogue had helped them get to grips with using the Critical Thinking Skills Toolkit:

> *'It enables the student to really go great guns with the critical thinking toolkit and to really engage with it much more readily.'*

In addition to supporting students, participants explained how using dialogic teaching had helped them enhance and improve how they used teaching activities in the toolkit which made their use more meaningful and relevant. One participant noted:

> *'Dialogic teaching has enhanced my appreciation of that toolkit and the value it has in terms of the exercises which can be embedded into particular sessions'.*

We conclude with a set of resources and teaching examples to support practitioners to use dialogic teaching to support the use of the Critical Thinking Skills Toolkit (Wason, 2016).

Practitioner guides to dialogic pedagogy

Our published *Good Practice Guide* (Figure 1) contains a series of teaching examples of how each participant used different dialogic teaching techniques to support using the toolkit. For example, one participant used dialogic teaching with the case tool for students who were returning to study, to support them to apply critical thinking to a live business problem. In another example, the dialogic repertoire of questioning was used to elicit responses to a series of scientific problems. We have also produced five quick guides (Figure 2) which explain how to use dialogic teaching, questioning, discussion and argumentation, dialogic verbal feedback and debating. These resources were launched at a sector-wide dissemination event in September 2021 which was attended by 80 colleagues, and are available under Creative Commons licence at the CritTALK Community of Practice website.

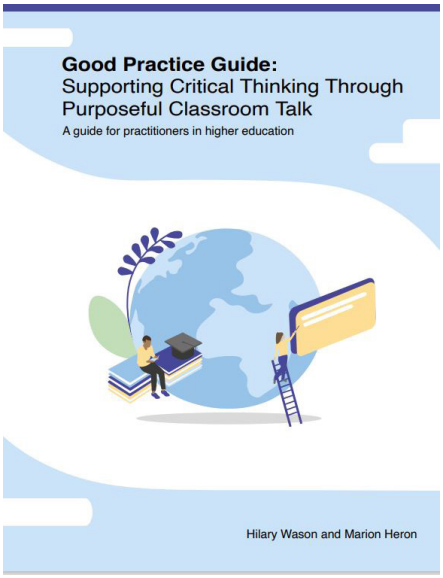

Figure 1 The Good Practice Guide (available from: https://tinyurl.com/3yt4fndz)

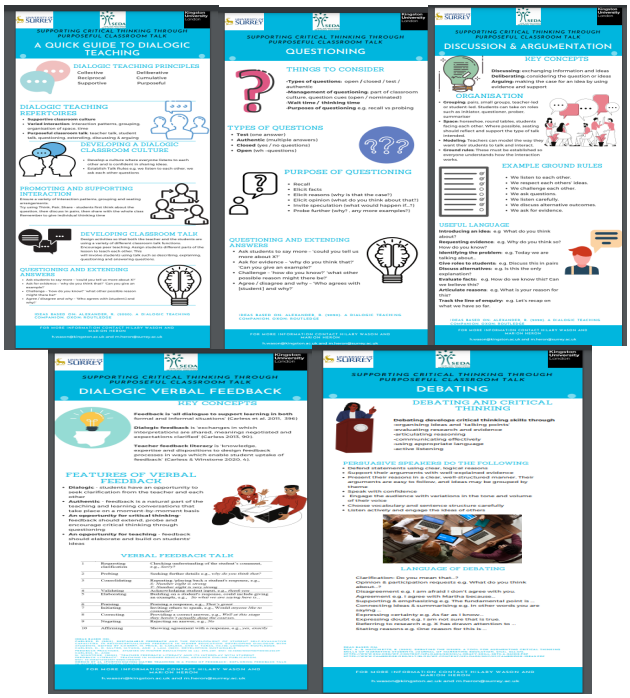

Figure 2 Quick guides to dialogic teaching (available from: https://tinyurl.com/3baej2ds)

Discussion and implications for practice

Our aims were to explore teachers' understanding of dialogic teaching, to what extent the principles of dialogic teaching could support the use of the Critical Thinking Skills Toolkit, and to generate a series of resources for practitioners. We recognise our study's limitations in terms of the small sample size, the fact that it was done at one institution and the impact which collecting data during the pandemic had on the findings. Despite this, we believe that we have made some progress to addressing each of these outcomes which we hope will inform practice in critical thinking and dialogic teaching across the sector.

First, learning about the principles of dialogic teaching provided teachers with a 'hook' to surface their tacit knowledge about their critical-thinking teaching practices and make them more explicit. It helped teachers to enact a pedagogical stance to support students to use the Critical Thinking Skills Toolkit, and to formalise and make their teaching practices more systematic. For example, dialogic principles encouraged teachers to purposively plan classroom discussions using tools in the toolkit as opposed to using an *ad hoc* approach. Furthermore, the CritTALK staff development programme, where colleagues were specifically trained on using dialogic teaching to support using the toolkit, provided teachers with a shared language and a space to discuss their different approaches. Sharing their experience of trying ideas out ('good' or otherwise) provided teachers with a reference point to scaffold discussion and exploration of critical-thinking practices and generated our practitioner resources.

However, we acknowledge the tensions experienced when using dialogue in an online environment which in some cases resulted in a rejection of the value of dialogic teaching principles as a pedagogy for teaching critical thinking. This perhaps illustrates a view that dialogic teaching can only be face-to-face and visible, whereas there is evidence which suggests that dialogic teaching can be effective online (Heron *et al.*, 2021). To counter this, we suggest that dialogic teaching could be framed as a mind-set (Boyd and Markarian, 2011) rather than a set of teaching techniques. By making beliefs and values of classroom interaction explicitly clear, teachers' perspectives about dialogic teaching could be expanded to recognise a number of different physical and online learning contexts and create opportunities for using dialogic teaching to facilitate critical thinking in these spaces.

Conclusion and recommendations

Our *Good Practice Guide* provides examples which illustrate the multi-faceted application of dialogic teaching to support the use of the Critical Thinking Skills Toolkit (Wason, 2016). The quick guides (Figure 2) may help to simplify the terminology around dialogic teaching and support teachers to engage students in discussions to demonstrate criticality and develop their dialogic stance. Finally, we recommend the use of communities of practice with active staff development programmes as a means of learning about how to use dialogic teaching to support critical-thinking development. There is much more work which can be done in this space, and we would be very interested in hearing from anyone who would like to be involved in further research.

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Addressing unexpected challenges in a blended learning project

Elaine Fisher and **Ruth Brown,** Partnerships for Enhancing Blended Learning West Africa (PEBL-WA)

Introduction

SEDA was a technical partner on Partnerships for Enhancing Blended Learning West Africa (PEBL-WA). While several customised documents were developed in advance for use in the delivery of *Developing Blended Learning* and are available under BY-NC-SA Creative Commons Licences, the three case studies in this article deal with an additional action, activity and artefact that were developed *during* the project in response to changes in the learning environment and were used to enrich the learning process.

Background

Following their partnership in the very successful Partnerships for Enhancing Blended Learning East Africa (PEBL-EA) project, SEDA was delighted to be associated with the follow-on two-year PEBL-WA project which began in September 2021. The aim of the undertaking was to create a partnership across 13 African universities in two countries to allow the permeable use of modules between them.

The lead partner on PEBL-WA was the Association of Commonwealth Universities (ACU), and the Staff and Educational Development Association (SEDA) was one of the technical partners. There were four other technical partners: Commonwealth of Learning (CoL), whose remit was to lead on quality assurance matters; the National Universities Commission (Nigeria); the Ghana Tertiary Education Commission; and the National Open University of Nigeria. The National Commissions' involvement was critical in ensuring that outputs from PEBL could be shared, as the project progressed, across the region (and indeed, the continent) with minimal red tape.

There were also 13 partner universities in the project, seven from Nigeria and six from Ghana.

The Ghanaian universities were: All Nations University; Ashesi University; Kumasi Technical University; Kwame Nkrumah University of Science and Technology (KNUST); University of Energy and Natural Resources (UENR); and the University of Health and Allied Sciences (UHAS).

The Nigerian universities were: Alex Ekwueme Federal University Ndufu Alike (AE-FUNAI); Ebonyi State University; First Technical University; Ibadan (Tech-U Ibadan); Ladoke Akintola University of Technology (LAUTECH); University of Ibadan; and University of Lagos.

The university partners nominated 36 participants to a training course, *Developing Blended Learning* (DBL), which had been designed and developed for PEBL-East Africa by SEDA and adapted for the West African context. The course was led by Ruth Brown who was associated with PEBL-EA as a course designer, developer and Course Leader, as well as a mentor to local leaders during DBL2 and DBL3. The first phase of DBL creates the opportunity for participants to master the pedagogic knowledge and skills to repurpose existing course material for blended/online delivery. During the extended phase, participants were developed to become the experts and pass on skills to repurpose courses to colleagues (in their own and in neighbouring institutions) in a cascaded approach. This strengthens capacity once the project is completed.

SEDA's most significant contribution to this project was the professional development and growth of an autonomous community. There were five Outputs in the PEBL project, although historically we have only been associated with Output 3 which is all about *Developing Blended Learning*. One module at each participating institution was funded by the project's Module Development Fund to be repurposed for blended delivery, and Ruth Brown became involved in the reviewing of these MDF modules at the end of DBL1 which, following DBL1-DBL3, have now become part of SEDA's official remit.

Project output

- Delivery of two SEDA Accredited Courses
- Growing and nurturing a community of Educational Developers
- Embedding engaging pedagogies into modules being developed at selected universities.

Project activities

- Participation in inception-stage consultations with academics, and reviewing the inception report
- Scoring course proposals to select 12 modules for development
- Running one iteration of the *Developing Blended Learning* (DBL) training course, leading to the SEDA named awards 'Supporting Technology-Enhanced Learning (STEL)' and 'Developing People and Enhancing Practice (DPEP)'
- Reviewing the 12 modules developed by partner universities
- Mentoring local experts to run in-house training on blended learning technology.

Case study 1: Pressing the <Pause> button

By the end of DBL2 it became apparent that there seemed to be an 'ideal' profile for participants in the PEBL project: they should be early- to mid-career academics (or academic developers…a term which we chose to include anyone who supports colleagues 'contractually or, simply, in fact'). People who were looking for a career trajectory could benefit significantly, as proved by the experience of a number of people from DBL1 and DBL2 during the Covid crisis.

It was clear that people who were too junior to have the potential to act as influencers needed to gain some experience in the field before doing DBL. Management – specifically senior institutional managers – were unlikely to

have the time a) to complete DBL in a timely fashion and b) to achieve the post-project aims, to which each institution was committed. Ahead of DBL3, David Baume and Ruth Brown (colleagues on the SEDA team) interviewed each institutional representative to ensure that the nominees from their university fitted the profile that had proven itself previously, with good results.

Time was very short at the start of DBL4 – institutional nominees were notified to the Course Leader less than a week before the start of the course – and two weeks into the course it was evident that a significant percentage of the participants were also members of their university's senior management team. One was a Vice-Chancellor. Some were Deans. Many were already behind the curve in engaging with DBL4. A quandary!

With some trepidation, the Course Leader called a two-week halt on the pre-planned course (see Case study 2) and contacted the 13 institutional contacts. They were asked to review their course teams in the light of the project aims (using a project fact sheet which had been drawn up for another audience) and the capacity of senior members of staff to commit the time required both during and after the project. (Post-project aims anticipated that the people who had participated in DBL4 would facilitate their colleagues' engagement with developing material for blended/online learning; this would be an ongoing commitment.)

Of the initial 36 participants, eight left DBL4, and their places were taken by colleagues better suited to the needs of their institution. Several of those considered too senior (by the course team) retained their places and the subsequent experience showed that they found the going challenging – one did not qualify to progress to the extended phase of the course.

Institutional representatives, who were responsible for liaison between their course teams and the ACU, were asked to notify the people affected by the change. One heart-rending cameo came from one of the people asked to step down:

> *'My eyes are red. Not because I was deleted from this programme but because I was not consulted. I did not complain and I have tried my best to buy follow-up with discussions and readings. However, I respect your judgement and decision to de-list me from this Programme. I was excited about the Training from the outset. And was hoping to also leverage on the knowledge gained to promote capacity building among my colleagues in my home Faculty – Faculty of Social Sciences, and indeed the Department of Economics. Trust me…I will keep in touch because there is more to be done to improve the knowledge base of young Africans at large. Thank you so much for the opportunity and quality of Network you are building in line with the African Agenda 2063 – the Africa that we all want.'*

Pausing DBL4 was a difficult course of action; not pausing it would have created the potential for project failure and reputational damage. Internal communication was clearly vague, but in the event, the risks were averted and the project goals have been successfully met.

Case study 2: Influencing the influencers

On reflection, the greatest risk in pressing the <Pause> button two weeks into delivery of DBL4 was that the enthusiasm and engagement that had already marked the new cohort would dwindle. At the time, a conversation about the profile of participants with a senior manager in a Ghanaian university uncovered a perspective that had not been previously considered: she talked about the value of reputation.

That this had not been apparent in PEBL-EA might have been due to the profiles of early participants, and the longevity of the project which allowed institutional narratives to develop around the people and the project. It would likely be a challenge in the much shorter PEBL-WA, where there was only one iteration of DBL, compared with three deliveries during PEBL-EA. As explained, an important consideration for the ongoing cohesion of the group was how to maintain the initial impetus during the two weeks of the <Pause> and this conversation prompted an idea which became a highlight of the course.

To keep up the momentum of the activity, a new unit (5A) was born. Although its nominal was out of kilter with the preceding (unit 1) and succeeding (unit 2) units, it was thus named as it fed into a second new unit – 5B – which together, under the title, 'Exploring inclusion in our own context', replaced the earlier Unit 5.

Unit 5A was started by the 'Oldtimers' (those whose participation in DBL4 had not changed) who were asked to include the 'Newcomers' (new starters) as they joined the teams. There were two activities in Unit 5A:

- Using a questionnaire provided, they were to interview as many colleagues as they could in a week (at as many career levels as possible) to discover their perceptions of the good and the bad of learning and teaching online, and what needs they perceived in themselves in relation to the topic. The intention was to develop an action plan that met as many needs as possible
- Using C. J. Powers' (2016) five rules of brainstorming (There are no dumb ideas; Don't criticise your own or other people's ideas; Build on other people's ideas; Reverse quality for quantity; and Play wildly), the teams (which by now included the Newcomers) were asked to brainstorm ideas to 'raise your profile and enhance your reputation as facilitators of repurposing material for blended (or online) delivery'.

Ahead of Unit 5B, each team identified the 'great and the good' of their institution whose influence can smooth the way as they progress through the PEBL project. Some chose a dozen or so people, others listed over 70 people. Each team also determined a 'good' day to invite their influencers to a lunchtime meeting to hear what was happening on the project, and the course leader sent an invitation to each person on behalf of the institutional team.

The results of the interviews and the brainstorming session (from Unit 5A) fed into Unit 5B, when each team met to develop an institutional PEBL Action Plan, based on the needs and ideas

that came out of the earlier unit. They then designed a presentation of the Action Plan which they shared with the institutional influencers at the subsequent meeting. To achieve consistency of purpose in the presentations across the project, the teams were provided with guidelines and the fact sheet to facilitate the planning. All the meetings were face to face, but many teams also used conferencing software to accommodate people who were not able to attend in person. Several teams invited the Course Leader to attend remotely, and the quality of the presentations was very good. The conferencing technology, however, was generally not up to standard which was probably because of the connectivity issues that plague higher education in Africa.

The reception to the presentations was consistently positive, and two more 'update' presentations were organised. In the gap between the end of the core pathway of DBL4 (STEL) and the start of the extended pathway (DPEP), institutional teams extended invitations to the same groups as had attended the first presentation to attend a follow-up. The teams used the opportunity to tell their audience what they had learned during DBL4 thus far and to tell their success stories to what proved highly supportive audiences. The Course Leader was invited to join several of the events online. Each of the proceedings concluded with the presentation of STEL named awards to successful participants, and many institutions allocated some of their PEBL funding to celebrate in a traditional way.

A similar event was arranged at the conclusion of the DPEP strand of DBL4.

Time will tell whether the initiative achieved its intended goals, but the early signs are very hopeful. After the second feedback session, a PEBL participant from one Nigerian university wrote: 'Our Influencers graciously celebrated us and our profiles were amazing [sic] highlighted'. She also reported an influencer's remarks:

> *'I am so jealous of your… people's new skills which many of us do not have. You know that this is the kind of skills I always crave for, but I could not make it because of my busy itinerary. How I wish I was able to join. You people are now above your contemporaries because PEBL has built your capacities, you should be thankful to PEBL West Africa. Congratulations.'*

Case study 3: Staking and marking a claim: A SEDA masterclass

A core component of the design of DBL was the use of claims to assess participants' mastery of the course outcomes: the five SEDA Values and the four Core Development Outcomes (which are common across all the named awards), and the four Specialist Outcomes which are related to individual named awards. More about the named award outcomes for Supporting Technology-Enhanced Learning and Developing People and Enhancing Practice can be found on the SEDA website in the SEDA-PDF section of the Professional Development pages.

During PEBL-EA, it became clear that some participants struggled with the idea of owning the locus of control of their assessment – they could answer exam questions (where the locus of control is firmly in the hands of the examiner), but were uncomfortable with interrogating their learning journey to find examples of how they had mastered the outcomes. In evaluating the issues, the overarching challenge was to empower the participants to identify how what they had learned on DBL had changed their practice in the light of the values and outcomes. To help them to master the technique of making a claim, we developed a four-part Masterclass: *Staking and Marking a Claim* (Brown, 2021).

The first two tasks in the four-stage process adopt a common approach: each task starts with a model approach to the task, followed by an invitation to create a piece of work that reflects their own learning. The first task identifies the differences between traditional (exam-based) assessment and the process of staking a claim, using a narrative of something of which they are proud of achieving. The model narrative from task one appears in the second section showing how to link aspects of the story to the different outcomes. Participants annotate their own writing from task one with outcomes that they believe are mastered. At this point the participants are given comments on their work.

Task three broadens the scope of the work exploring two different ways – by narrative and by outcome – to develop a thumbnail claim (in the form of bullet points linked to the outcomes) that adequately addresses all the aspects that are required. Again, each person receives feedback on the framework that they have built, after which they are at a place where they can frame their final claim (task four).

One critique of the Masterclass was the workload to provide feedback. There were two mitigating factors: firstly, the comments were provided by the course tutors (each of whom was responsible for six tutees), and secondly, providing feedback on a framework, rather than a full claim, actually reduced the load on the people reading the claims.

Introducing a 'back story' – marking the claim – meant that claimants gained significant insight into the way that a claim is marked and also equipped people who later became tutors to have a head start with the marking of claims.

The Masterclass was first introduced to the DBL3 participants at a four-day online workshop (in March 2021) which had three themes: developing the claim (STEL participants), how to run a *Carpe Diem* workshop (tutors/DPEP participants), and working on the institutional modules which were being repurposed for blended/online delivery (everyone).

The relative ease, compared to cohorts one and two, with which claims were developed and successfully staked heralded a new component of the STEL course, going forward. The six tutors on DBL4 benefited not only in the process of developing their own claims, but also in the way that they gave feedback to the DBL4 tutees. This cohort of tutors all submitted successful DPEP claims at the first pass, whereas several of the tutors on DBL3 (who only saw the material, but didn't do the Masterclass) needed to re-submit their final DPEP claims.

Following the success of the Masterclass during DBL3, the West African cohort (DBL4) of 36 participants attended an online workshop from 28 February to 3 March 2022, and a SEDA Masterclass was run during this online workshop. This provided an opportunity for the

participants to undertake considerable preparation towards their claims; 36 participants submitted their STEL claims and at the DBL4 Exam Board held on 11 August 2022, 29 out of the 36 successfully gained their STEL award.

One of the DBL4 tutors, who was introduced to the Masterclass during DBL3, highlighted an unintended outcome:

> *'The SEDA Masterclass has been of great value [to me] and [my] University. 1. It has increased my/our delivery skills. 2. I gained advanced knowledge in education management.'*

Conclusion

The action (Pressing the <Pause> button), the activity (Influencing the influencers) and the artefact (Staking and marking a claim: A SEDA Masterclass) described in this article, are all rooted in challenges faced in the course of running *Developing Blended Learning 4*, a bespoke course of Partnerships for Enhancing Blended Learning West Africa. They highlight the importance of a responsive approach to running projects, and demonstrate the success of implementing each of the elements.

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Be real: *Can* learning always be fun?

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> *'The roots of education are bitter, but the fruit is sweet.'* (attrib. Aristotle)

There is no shortage of neat aphorisms on the value of failure for learning. There is also no surplus of catchphrases on how failure is fun.

Introduction

Back in December 2022, a SEDA blogger posed the question 'Should learning be fun?' Initial responses on the emailing list reflected a pretty uniform sentiment: 'Of course it should!'. The blog author was also firmly on 'team fun'. I found this jarring and a bit annoying – isn't the answer to almost all questions in academia 'it depends'? Or the classic meeting-room cliché of 'well, there's no one-size-fits-all answer'. I wondered why some nit-picking bore wasn't chiming in to ruin the pleasant unanimity of the discussion. Then I realised that, omg, this was my time to shine (whine).

So, let's get picking. I'm not arguing that learning ought not be fun, or that it can't be fun. I'm saying that it should not and indeed cannot *always* be fun. Maybe readers will think that's obvious, but if it is obvious, nobody mentioned it in the discussions arising from the blog. Is it *that* obvious? There were no caveats, nor concessions, just a pretty strong consensus that learning should be fun, and the implication that if you didn't think so, you were part of the problem.

What struck me, I suppose, was an overpowering waft of common sense in the SEDA air. It's common sense that learning should be fun. That seems like a hefty assumption, and as academics we're supposed to look out for those. And for evidence. So where is the evidence that learning should always be fun? Perhaps a fellow nit-picker will suggest I'm setting up a straw man argument, and over-generalising the claim by adding 'always'. Maybe, but I do feel like it's strongly implied in much of our discourse around learning and teaching – as shown in the community chat around the initial blog post. In any case, then, where is the evidence that learning should be fun? There must be loads of it lying around if the emphatic tone of those discussions is any indication. Best get combing.

The 'literature review'

I started off the search by reflecting on my experience of learning, in both informal and formal contexts. Then I conducted a systematically unsystematic review of the literature: first I scanned my memory and Google scholar for some relevant educational theory, then had a root around for anything more empirical. The editors' guidelines state I should limit the number of references I include, so you'll have to take it on trust that my method and findings were pretty random. Some nits may remain unpicked.

Experiencing (un)fun

When I reflect back on important things I've learned, I feel satisfaction in the achievements, such as they are, and enjoyment in using the knowledge or skills I've acquired. It's very enjoyable to do something over which you've achieved some level of mastery. But those feelings are associated with an end point, or at least a late stage in the process. We can all improve and learn more, but these positive feelings tend to arise when a key struggle to learn is over. There are good bits, but they are often fairly easy. There may be moments of 'hard fun' where the struggle is enjoyable. But equally there are times when I think, 'this is not fun [but I'm not giving up]'. Experiences like learning to drive, completing a maths and stats Masters module, and especially parts of the PhD process, have often been less than 'hard fun' and at times quite clearly not fun at all. But those unfun moments were learning experiences, and seemed to me to be necessary and valuable ones. I did not enjoy them, but am glad I pushed through them, and I value them for the outcomes and processes they eventually enabled.

Fun in theory

You might be surprised how often the term 'fun' doesn't come up in the literature. The idea that learning should be fun certainly didn't seem to be liberally evidenced in the literature

on learning and teaching in HE. In historical terms, the claim is relatively new (Brandmayr, 2016), and in fact many past thinkers seemed to believe the opposite should be true. As noted previously, aphorisms abound on learning through hard work, failure and 'no pain no gain' approaches. Socrates seemed to sum up the early-stage PhD experience of imposter syndrome, for example, with the realisation that 'the more I learn, the more I realise that I know nothing' (Plato, *Apology of Socrates,* 22d). That realisation can feel inspiring or crushing, depending on the context. Similarly, belief in the pedagogic power of failure is shared across eras and cultures. You can Google your own favourite quotes, but suffice to say figures from Confucius to Maya Angelou promote the developmental value of the epic failure.

Valuing and leveraging failure has persisted in much modern educational theory. In art and design education, for example, concepts like creative failure and the interdependence of success and failure are significant; likewise in interdisciplinary courses which deal with things like innovation or entrepreneurial thinking. I've worked in contexts where lecturers actively encourage first- and second-year students in various creative disciplines to experiment and dare to fail. I recently mined the expertise of an ex-colleague who teaches dance, hoping to glean some Threshold Concept ideas from a discipline totally alien to my knowledge and certainly to my ability. He recounted how young dancers often include moves or styles which they think look nice or represent 'proper dance'. But apparently 'beauty is in the process, not the product', when students learn how to take risks in creating something moving or powerful.

Research on Threshold Concepts gives an indication that demanding fun from learning activities might sometimes be problematic. In Meyer and Land's theory, learners strive to pass through a 'portal' or threshold to an enhanced and transformational understanding of particularly tricky aspects of a subject. To do so, learners must wrangle with 'troublesome knowledge' whilst mired in a 'liminal space' between stasis and progress. For learners this can be 'unsettling', 'troublesome', and involve a shift in identity or 'sense of loss' (Meyer and Land, 2003). Such fun!

And there's yet more anti-fun theory to be had. I assume many SEDA-ites are in the constructivist gang, educationally speaking. If so, they might be interested to learn that 'Vygotsky never assumed that learning related to the zone of proximal development is always enjoyable' (Kozulin, 2003, p. 43). Many educational psychologists are also on team buzz-kill, noting that by focusing on making learning fun, we're conflating the act of learning, the experience of learning and the outcome of learning. In this view, the ability to tolerate the discomfort and uncertainty of learning as a novice, and to make (sometimes public) mistakes is crucial, and not necessarily pleasurable. And it's no surprise that the critical pedagogues are queueing up to problematise the 'f' out of fun: one key intention of the pedagogy of discomfort, for example, is to disorient learners and unsettle their assumptions (Nollan and Molla, 2018, p. 722). Try making an amusing ice-breaker out of that.

Observable fun

On the empirical side, there is of course a body of evidence which emphasises the value of learning through play in childhood development in which fun is a part. In adult learning the picture is less clear. Studies frequently make claims about the importance of fun in learning activities, but rarely evidence the relationship between fun and learning gains. Discourse on material differences in the way 'digital natives' learn or think, often linked to demands for serious games or technologically engaging 'solutions', are also unconvincing when placed under an empirical spotlight.

Perhaps unsurprisingly, the literature on 'serious games' is one location where the idea of fun and learning does come under scrutiny. However, seminal studies in this area, dating back to the 50s and 60s, make the crucial point that, apparently, it's a game's 'freedom from utility' which generates much of the enjoyment we get from it. So, games that really are fun… aren't really useful! Maybe that's an over-generalisation, but more recent studies in respected journals like *Computers and Education,* and *The British Journal of Educational Technology* support this argument. Findings indicate no significant link between learning and fun in the educational games studied (Iten and Petko, 2016; Sim *et al.*, 2006).

Finally, reporting on the 'Reading Wars' in US primary education also provides some pretty spicy evidence relevant to this argument. It seems that for many years, neuroscientific research into how children learn to read was overlooked for a range of social, economic and political reasons. In place of empirically proven phonics-related methods, thousands of American schools followed 'Whole Language' or 'Balanced Literacy' approaches. Sources across US media have covered this story: *The New Yorker, New York Times, The Atlantic* and American Public Media podcasts. The outcome of Whole Language approaches, according to these sources – thousands of American school kids with poor reading ability. Interestingly, many of the teachers involved reported being happy to implement these approaches in good faith – partly because they were very pleasant and relatively undemanding to teach. 'Literacy by vibes', as New Yorker journalist Jessica Winter revealingly described it. These learning methods were generally fun for all concerned, but they didn't work – many pupils didn't learn to read.

Conclusion

Overall, I'd argue that my journey through experience, theory and empirical evidence has produced at least some support for the idea that learning shouldn't always be fun. What bothers me most is my sense that there's a default assumption here that 'of course learning should be fun!' I share the psychology-informed concern that this confuses the process of learning – which can be difficult, troublesome, uncomfortable and exposing – with the outcome of learning, which is usually quite nice.

Educators across HE are already wrangling with the way commercial pressures and consumerist values are permeating our work. I worry that our best intentions – to design fun learning experiences – might intertwine with amoral market forces and produce ineffective practices in the classroom, or facile 'edutainment' online (Okan, 2003). This can be a tempting direction in which to head – setting up and facilitating fun learning activities is fun. But it might not work. What's more, researchers have long argued that sending out a signal to students that 'if [they] are not enjoying themselves, they're not learning' seems very risky, and not realistic (Bloom

and Hanych, 2002, in Okan, 2003, p. 258). Most of us have experienced that sinking feeling in a classroom where everyone else is seemingly finding a task easy or enjoyable while we're struggling. It's not fun, but it's a normal and probably inevitable part of learning.

In 2020, a social media app called BeReal was launched. It buzzes users once a day, asking them to take un-editable snapshots (selfie+forward facing cameras) of what they're *really* doing at that moment. It then shares these often mundane and always unglossed images with the user community. It aims to honestly depict users' lives, to the benefit and reassurance of all. Perhaps our students would benefit from a dose of authenticity and honesty in relation to the nature of learning.

I work in education because I like helping people learn, and I chose to do it in a university because I want to do what works. And to do what works, we need to be real. This is not to say that learning cannot be fun. But sometimes, learning experiences might be hard, uncomfortable, and emotionally and cognitively difficult. Sometimes, learning might need to not be fun.

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Boundary spanning or crossing? The human cell as a metaphor to enable change planning and operationalisation

Clare Kell and **Sarah Wilson-Medhurst,** Independent HE Consultants

Background and introduction

Educational and academic development activity is variously formed, located and led in higher education institutions. This highly complex and people-connected work (Jones and Wisker, 2012) is located in central units but also undertaken at the micro-level by a wealth of colleagues in their faculty/school/departmental structures. The authors between them have experienced many of these forms, locations and roles, and have also led cross-institutional educational/teaching and learning units or directorates. As educational developers and leaders, but also former module and programme coordinators, we have been involved in self-generated, imposed, peer-enabled and every other form of educational change.

A constant in our careers has been working with, and learning from, peers across university roles, career paths and hierarchies. In our travels we have witnessed the opportunities and troubles caused by linguistic and world-view sharing assumptions, *i.e.* where words hold different meanings for different HE tribes, or where embedded practice norms are not made visible for critique and peer ownership (Popovic and Baume, 2016). With our science, social science and health education backgrounds, we have been recipients and instigators of these misunderstandings. In an attempt to find a shared discourse and focus for opening change leadership and followership discussions and development workshops with colleagues across this diversity, we have frequently been described, or used the idea of, 'boundary spanners'.

Boundary spanning is not a new concept, certainly within UK HE; see for example Prysor and Henley (2018) for an exploration of its use in the context of leadership. But, from a science perspective, the analogy has always seemed dissatisfying and rich for expansion. This paper extends the analogy to offer 'the cell' (with its complex boundary-crossing, change and maintenance mechanisms) as a metaphor for change planning and operationalisation. First, we outline the idea, placing it lightly in the context of a sample change approach, and then illustrate the potential of the metaphor through a more detailed exploration of cell biology and human cell growth and change. The metaphor is offered for sector reflection and possible use across the plethora of locations where authentic educational development happens.

Change management: The cell metaphor

The maintenance of optimal conditions for sustaining life

while also being sensitive, and able to respond appropriately to/learn with and from, change is core to cell biology. Cell function output depends on the balance of many potentially conflicting input signals: a balance enabled by our body's innate integrated-systems thinking approach. We propose that cell function is a powerful metaphor to think about institutional change and learning. The metaphor has been piloted with science-based mentors, whose feedback suggested that explaining change management using terms, and through structures and processes, that they use every day, made change management ideas and practices easily accessible for critique and application. However, we see the metaphor as one that may have wider appeal. First, we offer a simple scenario to help the reader explore the metaphor with a familiar example, and their personal experiences, in mind.

A 'typical' educational development scenario

Your institution has agreed that a curriculum refresh is essential to ensure improvements in student experience and outcomes. Change is likely to take place in Faculty, School and Department contexts involving senior leaders, academic colleagues (subject, programme and module leads), quality assurance and registry-based colleagues and the plethora of integrated experts in career, support, library and digital technology services, to name just a few. Whatever the context, as an educational developer, you are likely to be thinking about opportunities and challenges that may include: facilitating change in a way that can be evaluated, achieves at least the desired benefits, empowers and values multiple voices and establishes a culture to review and sustain the change. As we all know, change facilitation is complex work requiring topic, people and change expertise, courage, persistence and attention to personal wellbeing and health (see for example Popovic and Plank, 2016).

Change 'management'

Change projects are located within a worldview and theoretical frame. Lippitt's framework for managing complex change (Lippitt, 1987) modified by Knoster (1991) is frequently cited. This model identifies six conditions for achieving sustainable change – vision, consensus, skills, incentives, resources, action plan – and suggests likely project outcomes if one of the six conditions is not met, *e.g.* a lack of vision can lead to confusion *etc*. Of course, change is more complex than this, but an awareness of such conditions can be helpful in planning and facilitating the scenario outlined above. As we turn to our cell metaphor, we weave change management ideas, framed in Lippitt/Knoster ideas, lightly into the narrative for illustrative purposes.

Change management through the lens of the cell metaphor

Step 1: The composition and function of the 'typical' human cell

Figure 1 depicts the 'typical' human cell that many of us will remember from our secondary education science lessons. Table 1 describes core cell features and their basic function. Envisioning the 'cell' as an analogy for a team (be that a team of educational developers or the team(s) they are working closely with), the final column illustrates the metaphor in the context of educational development, HE 'tribes' and change practice. We explore the latter in more detail in Tables 2, 3 and 4 as we focus on the integration of cell elements. Please note that space enables only relatively superficial illustrative examples. We are sure that other ideas will emerge relevant to your context as you read.

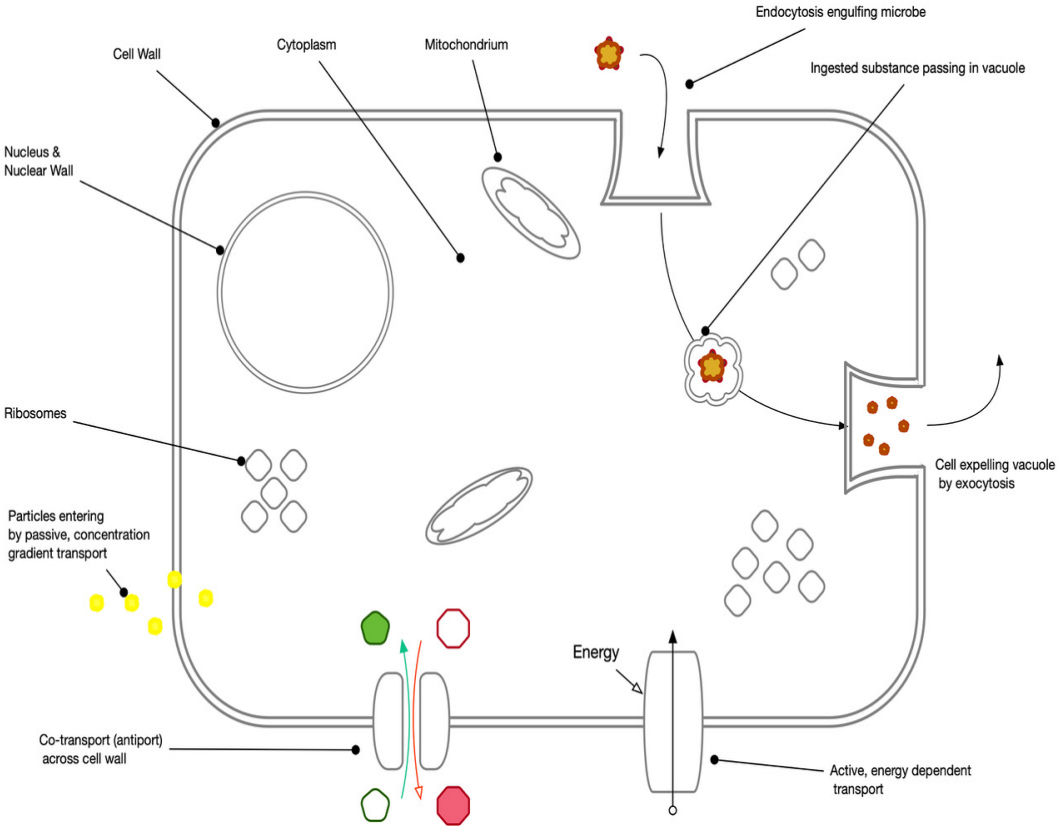

Figure 1 A schematic representation of a 'typical' human cell

Cell element	*Function*	*Challenges*	*Change relevance*
Cell wall	Encircles the whole keeping together all the elements that belong to the cell. Acts as both a barrier and enabler to what can come into and get out of the cells. The cell wall also carries proteins involved in cell-to-cell communication.	Can be pierced. Can be duped into letting things into the cell it didn't mean to.	The figurative 'wall' demarcating teams/groups/ workplace identities. Access to cell elements is mainly determined by the cell's controls.
Nucleus	The control centre for the cell and holder of its DNA to tell all the cell parts what to do. Has its own cell wall.	A cell will die without a nucleus, but a malfunctioning nucleus can have a profound impact on the health and functioning of the cell.	Identifying key decision-makers and those who control resources – getting realistic understanding of resource needs key here.
Ribosomes	The site at which the cell's genetic code is converted into protein to carry out cell's functions, repair damaged elements *etc.*	Inaccurate protein production will cause cell elements to malfunction/ over work.	'Named' roles and functions within a team: gatekeepers needing coordination and integration. The whisper mill: the site of interpretation and translation. Skills and a clear action plan seem an important consideration here.
Mitochondria	The cell's powerhouse creating energy from nutrients. Numbers vary dependent upon the function of the organ of which the cell is a part.	Needs oxygen in the cytoplasm.	People/teams generating energy/motivation but a) energy must be wisely used and b) teams must have enough raw materials/space etc. Lack of oxygen (resources) is a key concern here.
Cytoplasm	Salt and water gel-like substance providing structure for the cell parts so things can move easily around. Gel-ness partly influenced by salt concentrations in fluid around the cell.	Gel must be the correct consistency to keep cell shape and nutrient flow.	The culture of the team e.g. recognition for teaching and scholarship staff, workload model allocation for 'soft' citizenship work etc. Higher concentrations of activity outside the cell/in neighbouring cells can drain the energy and resources from the cell itself. Consensus, resources and incentives seem to be key considerations here.

Table 1 Reimagining a team/faculty/school as a 'cell': a brief lesson in cell-biology (refer to Figure 1 to locate each element).

Step 2: Lessons from nature: How cells maintain their function and respond to change

Having introduced the basic form and function of cell organelles, Table 2 offers a snapshot of the processes by which the cell's function and balance are maintained, and illustrates the 'cell as change' metaphor in action.

Process	*Possible relevance to change management*
Passive transport (requiring no additional energy). Particles enter down concentration gradients or using 'helpers' in the cell wall.	Ideas and resources (people's time etc.) flow out of the cell/Faculty as well as in. Connecting early-adopters outside the cell and raising their concentration, but keeping their cell-specific traits, will enable them to be recognised as 'friendly' and brought with ease 'back' across the cell wall. Knowing your target cell helps you 'tag' your initiative to key words used inside. Building external concentrations will help ideas, resources trickle through. External change leaders need to understand that the cell wall is not neutral and not equally open for passive diffusion by everyone. Needs awareness of the 'wall' and if/how this might be context specific: inclusive by design. Ideally have inside helpers and/or be familiar with local agenda so can piggy-back with others/strengthen likelihood of aligning with a channel/carrier.

Process	*Possible relevance to change management*
Active transport requires energy to enter against a gradient or to 'switch' one particle in for another passing out.	Connects to the idea that a valuable service is paid for in some way. 1) Knowing your target cell helps you 'tag' your initiative to key words used inside building relevance, and increasing the likelihood that the cell will resource the cost of opening the wall. 2) Mutual gain: how does your work connect to the cell's needs e.g. to validation events/awarding gaps work?
Endocytosis: surrounding particles (nutrients or infection) with cell membrane and passing them through the cell, taking what is needed before eliminating on other side. Requires energy.	Essential that the preparatory work is done so that the cell wall sees the change agent/idea as 'friendly'. Otherwise, the cell seems to welcome the idea in but just takes what it needs as the vesicle is moved through (and out of) the cell. If put in a 'vesicle' the change agent will need to be prepared with a range of possible tools to share, but will have little ability to change what they can offer, or call on more resources etc. once moving through the cell. The change agent may have little control over what is done with the resource provided. Note: in receptor-enabled endocytosis the receptors need to be present and ready to interact with the vesicle – otherwise the vesicle will be carried through and out of the cell untouched. Think about message packaging especially if you bring the cell news/different ideas from elsewhere.
Medical intervention: Targeted delivery of necessary building blocks in low concentration or to unblock or 'dislodge' things that are stuck	Will require lining up of receptors to receive and use incoming nutrients. Incoming elements will do no harm: something will be useful for everyone – and if not, the element can be packaged and expelled from the cell. Ongoing evaluation is useful to avoid resource waste and align building block delivery with changing needs as the cell performance improves. Recognises the need for unlearning. Requires careful multi-stakeholder listening, honesty, assumption challenging (change team included), relevance boosting, and close on-going evaluation. Recommended critical review of change literatures with specific focus on equality, diversity, ethics and decoloniality of ideas and processes.

Table 2 A synopsis of core cell processes and their relevance to change management activities

Reflection point one: What are you thinking about the metaphor and its relevance to the change scenario we offered at the start of this article, or the one you have in mind? Before we move on to the final section, perhaps pause and capture your responses.

Step 3: Influencing a cell's function: Harnessing the in-built features to enable owned change

Now we have all the building blocks of our metaphor in place, we can turn to the more complex integrated cellular processes that enable learning and growth. Table 3 shares cell processes that shorten response times to certain signals and others that trigger cells to grow more cell components to strengthen, but not change, the response. Changing function is the focus of Table 4. Tables 3 and 4 again illustrate the metaphor in the context of change management.

Process	*Possible relevance to change management*
Plasticity: a feature of nerve cells and the way they communicate with each other and their target sites. Stimulation repetition causes nerve cell changes that increase the message transmission and cell action response efficiency. May include 'rewiring'.	Cell responses to change might seem positive and strong, but unless change is monitored, sustained, evaluated and adjusted to emerging contexts, the change may decay and/or experience early adopters' fatigue. Future change may be more challenging to begin. Important here to identify the 'leading' indicators that will help show if the change is on track (while remaining open to unanticipated benefits / challenges) and identifying longer-term 'lagging' indicators e.g. as indicated by a theory of change (see Connell *et al.*, 1995) for the initiative. Long-term change will enable greater flow of nutrients and ideas and, as embedded in meaningful need/work, will require little effort to achieve strong response. Challenges for change teams include: co-designing triggers that will enable and embed practice repetitions and provide integrated feedback/forward loops while also working with the nucleus, control areas etc. to provide the resource and culture needed for the change practice and embedding phases. Repetition may strengthen unintended pathways. Be alert to, and design in opportunities to surface and address performative (i.e. tokenistic) practice and linguistic mimicry (Kandiko Howson and Kingsbury, 2021). Co-create meaningful approaches for critical dialogue, trustful conversations, time on task and recognition.
Triggering the growth of function-specific cell components: a unique feature of striated muscle cell but only if repeated triggered to 'overload'	Needs careful evaluation to ensure the trigger is producing the designed change. Change teams must remember that 'cells' cannot change their function through this process (endurance cells will not become sprint cells), but through learning, performance can be enhanced (i.e. sprinters can learn to do a decent 400m!). If contexts change and the new unit isn't used, it will be absorbed.

Table 3 Cell processes strengthening, but not changing, the prescribed function of the cell: a form of change sustainability?

Finally, in Table 4, we explore how the whole function of the cell can be changed. The distinctions between Tables 3 and 4 are important. The metaphor may help change enablers explore the extent and possible ramifications of a proposal early in a change relationship.

Process	*Possible relevance to change management*
Modifying the DNA in the cell nucleus by highly invasive replacement therapy using 'foreign' or local cell familiar DNA.	Alters the DNA direct and so will have huge impact on the functioning of all elements of the cell. 'Done-to' interventions may be within the change team's toolkit but require a high degree of specialism and awareness that negative reactions, before the modification 'takes', can be profound. Specific change strategies will need to be developed for externally-identified and provided solutions.
Influencing how ribosomes read the cell's DNA instructions (some vaccines use this approach).	Change teams identify the 'engines' or areas of production of the Faculty and change their outputs and/or the messaging in their outputs. Areas of production may include meso-level pedagogic, assessment, QA policies and local guidance, but keep alert to, and include, the quiet movers and shakers, micro-level doers and influencers. Note that care is needed because cells cannot tolerate repeated interventions at this level.
Cell replacement.	Broad-brush control-alt-delete: out with the old and in with the new.

Table 4 Influencing the cell's function: changing the blueprint and how it is read

Conclusion and final reflection points

Returning to our 'typical' educational development scenario above, we hope that the insights offered by the cell metaphor, illustrated with the Lippitt/Knoster model, provide some useful 'tools', or at least food for thought, for educational developers and all who support educational enhancement in and across HE 'cells'. We look forward to hearing your thoughts and ideas.

To conclude, we offer a few key points for reflection using the cell metaphor:

- What is your 'cell', who are the other 'cells' you are engaging with? Do you have a shared vision or goal? Is it worth spending time on this to achieve some consensus?
- Is there a realistic appreciation of the resource demands being placed on each cell and are they equipped (including having the skills) to do so in a manageable and sustainable way? If not, what adjustments need to be made to the plan? Does additional expertise need to be brought in?
- Is this change clear, valued and understood by key decision makers? Will their messaging/leadership enable the cell to work in a productive manner consistent with the vision/goals of the initiative? If not, what discussions/information need to take place/be shared to gain consensus?
- Is the change temporary or needs sustaining? The 'cell' learning and strengthening pathways will be different if the change is keeping or changing foundational functions
- What features of the 'cell' can we identify and harness to perhaps desensitise, open new pathways *etc*.? Do we need to think about ways to support disruption, unlearning, self-monitoring feedback loops?
- And all the while every element of the 'cell' will be in close communication: the systems are built to maintain balance. For survival the 'cell' is constantly undertaking cost-benefit analyses. Communication, communication and communication to build shared understandings will be key and for that you need healthy cytoplasm!

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Congratulations

Congratulations to Falmouth University, which has become the latest institution to be recognised by SEDA's Professional Development Framework Committee to be able to gain accreditation for a PDF named award.

'Creative weird': Exploring gamification of communication and listening skills through play

Sarah Aynsley, Keele University, **Matthew Rutter** and **Liz Boath,** Staffordshire University, and **Russell Crawford,** Falmouth University

Introduction

Gamification has been a key emerging pedagogic approach in developing multiple skills through playful learning. In this article, we hypothesise that using a narrative-driven physical card game improves communication and listening skills in players through building an encouraging and engaging user experience. Our evaluation from two player groups of students revealed engagement and confidence improvements in both communication and listening skills development. Our findings also showed improvement of player self-awareness of these critical skills as well as highly reflective commentary related to communicating in professional contexts. We conclude there are more elements of interprofessional and interpersonal learning that can be improved and supported through similar playful learning approaches achieved through use of gamification-based interventions such as we describe here.

Introduction

Defining 'gamification' used to be simple, it was the application of game-like mechanisms in non-game contexts, and it was everywhere from supermarket points collections cards to collecting-based hobbies such as philately (Pantarotto *et al.*, 2018).

Once the Higher Education sector better embraced gamification as a concept, that definition further evolved to encompass a range of approaches – from leader boards and competitions to library-based escape rooms and digital/physical educational cards and board games – but in essence, remains mostly true to the original definition (Limantara *et al.*, 2019; Aynsley *et al.*, 2017, 2018, 2019). As Jane McGonigal, game designer and book author notes, 'Games give us unnecessary obstacles that we volunteer to tackle', which all academics will recognise as one of the pinnacles of engagement behaviour change (McGonigal, 2011). Taking that idea one step further, there seems to be a schism in the literature, either by accident or design, and a rift has appeared, namely: 'gamification' which has somehow changed in its perceptual meaning to refer to a more targeted execution, and 'playful learning' which is often espoused as being in aid of a more holistic learning experience (Whitton, 2018).

Whether you agree or not that there is meaningful difference in subsets of the terminology around gamified learning, there are some immutable benefits that have convincingly emerged in recent years in the literature, with user experience (UX) increasingly featured prominently (Dubbels, 2018). Here we hypothesise that using a narrative-driven physical card game can improve communication and listening skills in players through building an encouraging and engaging user experience. This evaluation seeks to determine player perceptions within a pilot group of students enrolled in a Health and Social Care degree, and explore their views, opinions, and feelings about the gameplay experience using our game, Braincept: Oracle, to support their communication and listening skills' development. This group in particular, are likely to be going into roles where well-developed skills in listening and communication are essential.

Braincept: Oracle

Braincept is a range of educational games designed to facilitate learning in both further and higher education, using a gamification approach to encourage, support and drive student learning through play (Aynsley and Crawford, 2017). Our games are physical in nature and provide an interactive way to explore and scaffold learning (Aynsley *et al.*, 2019). Our previous work has focused on gamified approaches to a range of skills, from subject specialisms such as pharmacology learning, to more general learning contexts such as interprofessional education, where our approach has shown reproducible positive student gains from play (Aynsley and Crawford, 2017; Aynsley *et al.*, 2018).

Figure 1 Braincept: Oracle

Within Oracle each player continually has three cards (Figure 1, bottom left) they can play; as the narrative story unfolds (left to right on top) the cards are incorporated into the story until an 'ending' card is drawn randomly (top right) from the deck (bottom right). At this point the players have to craft the remaining story through one more turn each to reach the ending.

The pedagogic rationale of Oracle as a gamified tool is to engage players in active listening and communication skill development through narrative-driven group play (Aynsley *et al.*, 2019). Players continuously build and develop a 'living narrative', essentially a self-generated story using the trigger game cards and, in this manner, scaffold and evolve

their story. This research explores whether student players would perceive enhancements in their confidence through both progressing a shared narrative (*i.e.* interpreting this as enhancing their communication skills) and/or improvement in thinking and planned use of game cards to effectively communicate and steer the narrative, in real time (*i.e.* a proxy for enhancing and engaging listening skills).

Methodology

For information, data collection took place just prior to Covid-19 restrictions. Focus groups were used to explore students' views of Oracle. All data from the two focus groups was fully transcribed and anonymised. Two members of the research team independently read and analysed the transcripts using thematic analysis and indicative quotes in support of identified themes (Braun *et al.*, 2006).

An evaluation tool was applied, designed for use with Oracle, consisting of three questions using a 5-point Likert scale (Bowling and Windsor, 1997; Likert, 1932), and space provided for additional free-text comments. This allowed collection of data around self-evaluated player perceptions of confidence associated with overall enjoyment, listening and communication skill development post-gameplay.

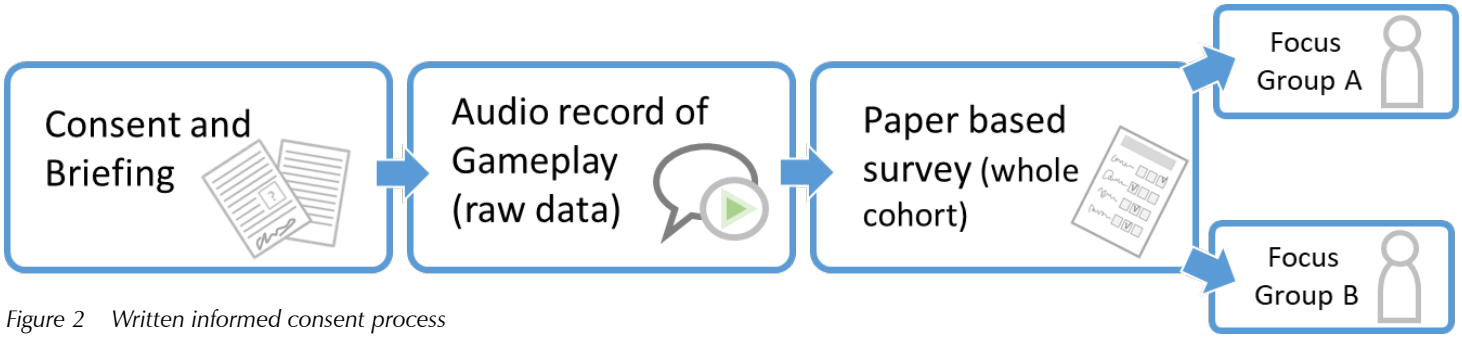

Figure 2 Written informed consent process

Written informed consent was secured after a short briefing (Figure 2) about the game and our research aims. All consenting participants formed into two small groups to play the game, which was audio recorded. After playing the game, all participants completed the anonymous paper-based feedback survey and then joined a focus group with the other players from their group to discuss their perceptions of playing Oracle.

Results

Ten Level 4 Health and Social Care students (9 female and 1 male) consented to play two rounds of Oracle as part of a larger teaching session based on developing communication skills. The purpose was to explore their perceptions of a game-based approach intended to aid development of these skills. Once they had played Oracle, the students were randomly split into two focus groups. Only one student did not participate due to not having glasses, so they were unable to read the cards. All other students participated in the evaluation. They all agreed for these groups to be audio recorded and for anonymised representative quotes to be used.

Questionnaire data

Although it was a small number of participants, Oracle had an overall positive effect on confidence in skills and enjoyment. But the disagreeing participant (see Figure 3) said that the game was 'too easy and not complicated enough for uni students'.

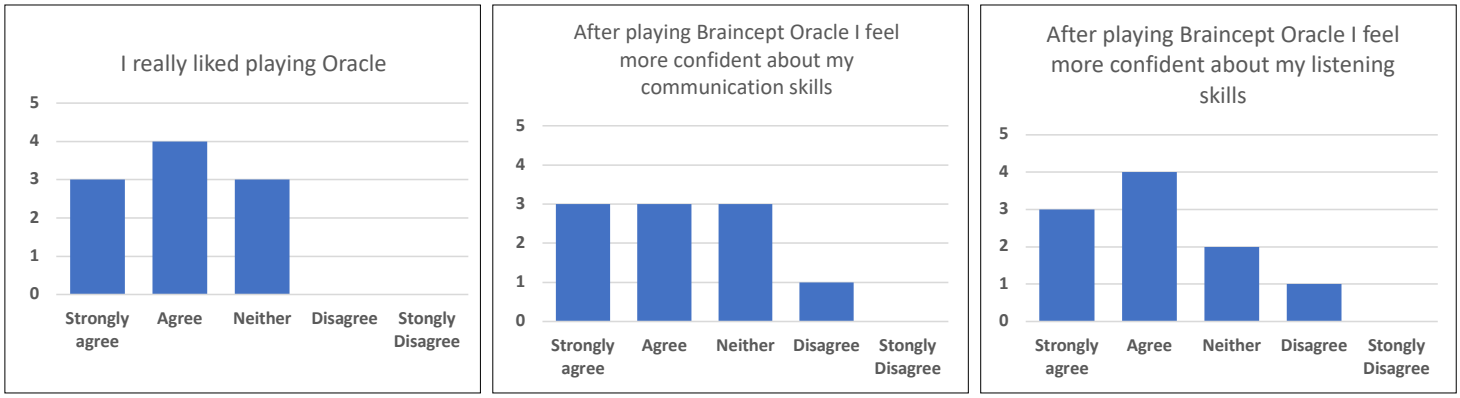

Figure 3 Participants' responses towards Oracle as a communication tool

Focus group themes and associated quotes

Analysis of the focus group transcript revealed several important themes which have been grouped under three core higher order themes – Professional awareness, Impact on skills and Use of gamification (Table 1).

Main theme	*Sub theme*	*Representative quote(s)*
Professional awareness	Understanding needs	Because you're going to be working with a range of people, patients and other employees and you need to make sure you can communicate the right information and also listen to the right information.
	Preventing failure	It's vital for people because that patient's life is in your hands, so you need to communicate so nothing bad happens by mistake.
	Adapting communication	You need communication skills because you have to speak to people anyway, so if you don't communicate, you're not much good. You have to communicate for wants and needs.
Impact on communication skills	Collaboration	Instantly went into supporting someone with communication issues, which was great. It's a good team building and communicating exercise.
	Speaking	It was interesting, you saying about you didn't want to appear stupid. But you could have gone as crazy as you wanted. So, I think maybe something about being non-judgmental around the way people use the cards.
	Listening	Making sure you're listening but you are actually listening in the moment and not thinking about your own thoughts first. Active listening skills, you're using there. You needed to listen to what somebody just said. You needed to listen to what the next one was. You needed to listen the whole time so you could follow it on.
	Confidence	I think you're thinking of what you're going to say first, before you say it…you don't want to sound stupid, and you want the story to make sense, make it easy for the next person to link it as well.
Gamification	Game play	It was funny having the contrast of trying to add the different scenarios into one and make it a story. So, you're actually doing something that's quite complex then, without realising it.
	Setting	Definitely a good icebreaker. If you're with a group of people you don't know and you're not very comfortable talking to, then it'd be brilliant for that.
	Improvements	If the cards were maybe a bit more in detail. Perhaps a setting for each of the stories may have supported a bridge. I'm massively visual. So, if you have a sword but not just the writing a sword, if you had an actual sword…

Table 1 Grouping of higher order skills

Discussion

The purpose of Oracle is as a tool to engage participants in improving their communication skills. Our hypothesis asked if Oracle would generate a positive user experience and if so, would that lead to engagement and ultimately an increase in awareness of an individual's communication skills and context for improvement?

The core aim of Oracle was to hit several key objectives in providing a gamified tool to increase confidence and ability in speaking and listening skills. To be successful at this we aimed to create an environment which was an encouraging and engaging user experience. To succeed here the game itself must be fit for purpose to engage with but also to enhance skills in participants. The functional nature of the game as an educational tool can be examined through the use of the

Serious Games Design Assessment Framework (Table 2), which takes content, mechanics, narrative, aesthetics, and framing, which are all jigsaw pieces that work either with or against 'game purpose' in this context.

The SGDA framework *(Mitgutsch and Alvarado, 2012)*

Game design elements	Explanation & Assessment criteria
Game purpose	The intention of a designer to design the game.
Content & Information	The information or data offered and used in the game. All of the given information should be valid, easily approachable and fact-based.
Mechanics	The methods invoked by agents for interacting with the game world, general rules, in-game challenge, learning curve, and reward system.
Fiction & narrative	The created fictional space, relationship between story and game purpose.
Aesthetics & Graphics	The audiovisual language used in the game and its impact on the player.
Framing	The framing of other elements in terms of the target group, their play literacy and the broader topic of the game.

Table 2 The Serious Games Design Assessment Framework

In this regard, application of the SGDA framework to Oracle is a good metric of relative success resting on a multitude of learning-relevant facets. In applying the framework, perceptions of the game as a functional tool indicated our participants were broadly positive about the ease with which the game could be picked up and learned. Interestingly, the perceptions of the difficulty of the game varied between our two focus groups and much of this seems to be due to the starting levels of player confidence in each group. Those who started more confident naturally and were outspoken felt it was engaging whilst those who expressed a lack of confidence said they struggled with the game. Interestingly, these perceptions did change post-gameplay with a positive inflection which we are interpreting as 'gains from play' and speaks to our design intent (purpose) of the game.

Impact on communication skills

Initial focus group questions asked participants for their perception of the importance of communication and listening skills. This clearly revealed a set of professional expectations in the participants, who recognised that listening and communication skills are essential across a breadth of practices that they may choose to go into, but also that they were critical from a societal perspective. This is an important finding from playing Oracle, as the rationale beneath the game was to encourage individuals to engage in a game-structured (*but not limited in any other way*) conversation, which would then raise their self-awareness and, as a result, communication and listening skills would be developing through a more self-efficacious awareness emerging from play.

Several members of one group felt that more complicated game cards would enhance the game and improve learning, and whilst we had designed the game to be inclusive and have a basic level of English on the cards, it was interesting to us as researchers that this driver towards more complexity emerged after only just two playtests. We are interpreting this desire for complexity to be both a boost in players' confidence with the format and benefits of the game, as well as looking for more freedom to explore the boundaries we have provided with Oracle, to better help their listening and communication skill development. When asked about the ease of the Oracle rules, groups shared that they like the freedom of the narrative and evolving story, but some members also expressed a desire for a way of sorting cards or a similar device built into the game, that gives them something to anchor the narrative to, almost like a scaffold or spine to hang their creativity upon.

Professional awareness

Reflecting on communication skills post-gameplay, the students identified several important themes around the core ideas of professional awareness. They shared their understanding of the need for enhanced communication and listening skills in a variety of professional contexts, and their shared awareness of the importance of this was a significant positive we observed from introducing them to the game. Particularly with concepts of 'respect for communication needs' and 'effective communication to prevent failure', where both these important areas were identified by the groups as being considerable in any professional rôle. Indeed, respect for others' communication needs was clearly in evidence throughout their play, with these groups of students helping those who were less comfortable within their groups with the meanings of unfamiliar words and in helping each other to recap the story's progress during the game sessions. This was both observed and expressed in the transcript from the students and in our interpretation, and keenly speaks to both narrative and framing when applied against the SGDA framework.

Gamifying learning and gains?

One of the first gameplay-related themes that emerged when the groups started to discuss their experience was a divergence on perceptions of difficulty of the game, with some considering it very simple and others finding challenges in creating their narratives. Player comments also homed in on reflections that whilst the rules of Oracle may be simple, they were engaging in a range of complex interactions that rewarded player investment in narrative, encouraged by the group play experience. From our perspective, this might be a metric of player engagement (as in, less engaged players may not get as much out of the game due to lack of investment in the evolving narrative), but it could equally be an indication of the difficulty in finding meaningful links between cards, which would determine whether the narrative made 'sense' to the group or whether it devolved towards randomness. In either case, from a framework perspective, 'content and information' were clearly key to finding 'meaning' through gameplay, based on the comments here.

We feel there is potential in this application of Oracle which we had not previously considered, where, with some minor modifications to the rules, Oracle might offer a useful tool to

initiate communications as much as it was designed to help development of them. From a framework lens, we are looking therefore at 'framing' Oracle's use to different outcomes, thereby hinting at transferability of the game as well as new ways to apply its mechanisms.

The final theme to emerge in this study was, of course, around improvements to Oracle. Our further work will therefore explore the concepts surfaced, as we consider both word and style variations on Oracle that offer optionality for complexity in future versions of the game, as well as exploring built-in ways of sorting cards or similar devices. This might aid players in anchoring their narratives as a scaffold for creativity but also as an enabler for the less engaged to become more so as they play. Ideas we are exploring on this would be game-based ways of helping players to help each other recap to where their story has progressed during the game sessions.

Summary and perspectives

Here we hypothesise that using a narrative-driven physical card game, which we have called Braincept: Oracle, improves communication and listening skills in players through building an encouraging and engaging user experience. Our findings with two pilot groups of students revealed their engagement and confidence in improving their communication and listening skills development. Our findings also showed player improvement of self-awareness of these critical skills as well as quite reflective comments from the players with respect to communicating in professional contexts.

From this work, we feel there are future elements of interprofessional and interpersonal learning which can be improved and supported through play, and our findings are that Oracle might be a useful tool to achieve this.

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Groupwork – Could policy help, if so in what form?

Jim Turner, Liverpool John Moores University

Introduction

This article focuses on how universities support staff and students with groupwork through the development of policy. Do any institutional policies contain statements relating to groupwork, and if so, what do they focus on? How and what might be the recommendations for policy? How does this help us to think of what we might need to do to help staff and students?

This article will provide a framework for understanding the ways in which some institutions across the sector are supporting students and how this might support or hinder the teaching and learning development community in its work. In recent years, I have been working on our assessment and feedback policy with a stakeholder group drawn from across the institution. However, a key question for me as a learning and teaching developer is whether this is an important process in developing practice. I am also very interested in improving the experience of group learning.

Why might it be a good time to think about groupwork policy?

There is a shared perception that students and staff are finding it harder since the pandemic to negotiate community. The disruption, anxieties, and new work and teaching practices have yet to square the circle of flexibility and belonging. Emergency remote teaching did not develop the necessary structures to support an online community, and students struggled to connect (Prodgers *et al.*, 2022). Perhaps groupwork could play a more critical role in developing this aspect of learning.

The sudden availability of sophisticated automated language construction systems such as ChatGPT has created shock waves through our approaches to assessment design. Groupwork is not immune to the use of these tools. In fact, they might compound the delicate developing trust between group participants as some individuals may choose to use the tool while others may not. Obviously, there are few reference points that would help us define what a response might be, so I will use this space to make suggestions.

Institutions are currently submitting their TEF statements, which capture areas of teaching and learning they are most concerned about highlighting and evidencing. I looked at 81 gold submissions from 2016, searched for references to groupwork or collaborative learning, and found ten statements with varying levels of involvement in this specific area. Some institutions are exploring data to identify their success, while others have invested in their physical estate to enable group learning.

So, groupwork has the potential to play an important role post-pandemic. There is an additional risk, along with the usual group learning issues, of AI which has yet to develop a key role in institutional strategic plans. Perhaps now is a good time to think about how policy might also help support this type of learning. But might it be naive to think that policy would play a key role in this area?

Can Institutional policy drive change?

This has been previously explored through policies for sustainability (Henderson *et al.*, 2017) and MOOCs (O'Connor, 2014). There appears to be a cultural and social dynamic that reduces policies' impact on development. The process of developing policy reflects institutional culture and priorities, and can also allow a mitigation of risks and change. The practice of teaching requires flexibility and agency, and policy-driven rule-based systems might lead to resistance (Henderson *et al.*, 2017). Fanghanel (2007) notes a process of policy reconstruction, a filtering of the rules through to a local notion of practice. Others go further to argue that there is a very weak "trivial relationship" between local policies and their impact on practice (Cox *et al.*, 2011). So there are local rules within the culture. This is a subject that affects practice; policy might play a very small role in developing practice.

According to Bogue and Riggs (1974), good institutional policy entails delegating decision-making, making it easier, more efficient and ensuring consistent and equal treatment for all. Where policies can go wrong is where they are essentially the opposite of efficiency, where decisions are structured into complex protocols that are designed to protect departmental control and status, and where extreme exceptions drive policy development, reducing effective local judgements. A critical element which increases the usefulness of policy is to consider who is at the table when policy is constructed – diversity leads to better policy design (Bogue and Riggs, 1974). If policy is tempered through culture and is locally interpreted to fit with both practice and perhaps the act of community-involved policy making, then the process is just as important as the policies themselves.

Where might one start when devising a group assessment policy?

Pitt and Quinlan (2022) conducted a literature review of assessment and feedback research for AdvanceHE to inform academic practice and make recommendations to policymakers. They connected this with the general aims of the Transforming Assessment in Higher Education Framework (AdvanceHE) which all drive in the same direction of policy renewal. Their recommendations around group learning for policy makers could provide a framework to help us examine current institutional policies. These are:

1. Programme level design is the process of incorporating carefully designed groupwork across the programme to provide the programme team with a vision of how skills are developed, and complexity and challenge increased with the appropriate design and support.
2. Institutions should take proactive steps to ensure productive groupwork, including building cross-cultural teamwork skills, intentionally assigning groups, setting group goals, and enabling individual accountability. This scaffolding and structure will allow groupwork to fulfil its educational potential.

In their thematic review of group assessment literature, de Hei *et al.* (2016) constructed a framework to guide education developers and practitioners rather than policymakers. However, it contains some useful ideas that may appear in a potential policy.

Their framework includes:

1. Interaction/learning objectives and outcomes/assessment, where the activity's purpose, process, and product are discussed, along with identifying individual/group differences. Criteria determination, attainment assessment, and student involvement are addressed. Balancing pre-definition and flexibility for clarity and fairness is considered and that this is all connected with the learning outcomes. Task design, structuring and guidance is more about the details of the task. It relates to the balance between the students' agency over the process and the level of prescribed detail in the task, the pre-defined aspects sequencing of different activities, and how much agency do the students have. In terms of policy statements there are limits to how prescriptive you could be, other than encouraging some consideration of the alternatives.
2. The guidance provided: what, where, when, how are the students supported through the process? Besides setting a baseline standard of documentation, it is difficult to see how policy could go much further.
3. Group constellation: This concentrates on how the group's size is decided and membership allocated, making sure group size is appropriate to the complexity of the task.

4. Student involvement: Although not explicit in their list, there is an inferred encouragement to involve students in design, group management preferences and criteria development. Could a policy strengthen the requirement to co-develop the groupwork design?

In summary, there are some strong suggestions from research to direct groupwork policy. Let's now see what is currently in UK institutional policies.

Analysis of policies

Policies were identified through an advanced google search looking for 'ac.uk' websites. Assessment and feedback policies were searched for. These were then searched internally for mentions of group and collaborative assessments and work. 40+ policies were identified. Policies were rejected if they had no mention of groupwork or only one mention. 12 policies were included in the review. The individual statements have been sorted into themed groups. These were placed in categories using the above framework and have been used in this article as anonymised quotations to illustrate a theme.

Programme level design

Programme level design is the basis for supporting students and staff to develop the right skills through the right sequence of activities, with appropriate support to develop the skills and knowledge. The main aim here is that students get to develop their skills over time, and that each stage leads to a new level of complexity and skill development. It is encouraging that six policies have general statements around the idea of the programme level plan. Three of these are focused on preventing too much groupwork across the levels, and one of these requires no groupwork at level 6, another requires all individual marks at level 6. This might indicate that policy makers are reflecting on negative experiences of programmes creating too many instances of groupwork, leading one statement to say students could suffer from 'groupwork fatigue'. This is all sensible, no one wants too much groupwork across the programme, but the aspiration is that the overall journey makes sense to the students. The same policy includes this helpful statement, that 'the groupwork Intended Learning Outcomes show progression throughout the Programme Parts'. This goes one step further in providing how the programme might think about, develop and evidence this groupwork integration. The aspiration is there and is probably echoed in general working practices outlined in policies. Assessment mapping in various forms exists across the sector, but one might question how developed this process might be within the team and those that support them. Could policy statements go further to demand a certain level of conceptualisation of the whole programme, or is this always difficult to capture? Perhaps programmes require a level of flexibility in order to manage the workload and various other challenges?

Group allocation

A number of policies do contain statements around ensuring students are informed of the way teams will be selected and the minimum and maximum sizes. These are useful points to direct those designing the assessment. One statement requires a 'clear and fair mechanism for forming student groups should be set out', which is difficult to dispute; however, for tutor selection for groups the 'selection of group members should be made transparent to students'. Although probably unintentional this seems to indicate that student self-selection is the expected norm. Why might this be? This might be seen as unnecessary policy overreach, restricting academic freedom. This might be through a lack of exploration of the research in this area, or in preferring practice norms over a more philosophical approach to group allocation. It might also be seen as counter-productive for the student experience. This might appear in the guidance alongside the policy rather than awkwardly articulated in a policy.

The policies do have some useful points around clarification of students wanting to change groups, or if groups go below the minimum size, such as having information about how long is the opportunity of changing groups and the exceptions that might mean changing groups late in the assessment period. Depending on the amount of work, smaller groups could be at a disadvantage.

Interaction/learning objectives and outcomes/assessment

Policy statements around learning outcomes are common across the policies. There was only one reference to considering whether process and product are marked separately. Without access to the outcomes, it might be implicit that process skills and reflections are separate from content knowledge contained in the product. The avoidance of exploring process in the criteria or outcomes might allude to the problem of marking re-sits or alternative assignments.

There are a number (4n) of policy statements that relate to the delineation of the individual within the group. One states that 'contribution of each individual student should be evident'. How possible this is depends on the process and product. But both are problematic depending on the complexity of the task. Another asks for clarification on the process to 'record individual contributions'. Another group (2n) aims to indicate the percentage of marks for individual contribution. One states that 20% of the mark must be from the individual contribution. One attempts to solve this by stating that shared group marks are not allowed. Peer review offers a potential solution but is never explicitly mentioned. The assessment statements do lean heavily towards students receiving an individual mark and having a notion of their individual contribution. However, they may be written in such a way as to shift assessment design away from students having a role to play in this judgement and may incline towards design that emphasises individual contribution rather than collective collaboration. This is possibly where policies are starting to shape practice against research findings.

Task design, structuring and guidance

There are no statements that are connected with the idea of cross-cultural teamwork skills. There is one instance of support for students with disabilities that raises ethical concerns around 'how' and 'if' to make other group members aware of any hidden disabilities. There are four policies that make reference to supporting students with learning how to be in a group. Any mention of resolving intra-group conflict and difficulties is addressed as being covered before the groupwork starts rather than making sure explicit support is in place throughout the process.

Student involvement

There are no policies that require student involvement at any level. In terms of policy, groupwork remains something that is created for students by staff. There may be slight hints of student autonomy in some of the policies. For instance, the declared responsibility for all individuals to help manage the group behaviour and organisation. But this doesn't come close to students being involved in discussing any adaptation to the marking criteria. Would you expect the student voice to be written into a policy? There are student voice policies, but these tend to focus on feedback after an educational experience rather than on actively taking part in designing it as it evolves.

Conclusion

Institutional groupwork policy may have a limited effect on localised practice. However, there are some good practices and research insights that could lead to better policy development. Current policies tend to focus on the following.

Programme level design aims to support students and staff in developing skills through sequential activities, with policies reflecting considerations for groupwork fatigue and progression of groupwork outcomes, but there may be room for further policy development on assessment mapping and programme flexibility.

Policies regarding group formation in assessments contain statements on transparency and student self-selection, which may be seen as unnecessary policy overreach or academic freedom restriction and may impact student experience and work distribution.

Policy statements on learning outcomes, assessment, and individual contributions in groupwork are common, but there may be challenges in capturing process skills and reflections, marking re-sits, and balancing individual and collective contributions, possibly influenced by research findings.

Policy statements lack mention of cross-cultural teamwork skills, raise ethical concerns regarding disclosing hidden disabilities, and primarily focus on pre-groupwork support for addressing intra-group conflict and difficulties.

Policies lack requirements for student involvement in groupwork, with limited student autonomy mentioned only in aspects of group behavior and organisation, and student voice policies focusing on post-experience feedback rather than active participation in designing groupwork. Wider dialogue and involvement with students and staff could support the development and use of policy.

This is a short study of assessment policy. There are arguments that local policies have limited influence over practice. However, linking policy with research may help provide improvements in the students' experience of this complex area of learning.

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Writing in the Golden Hour: Effective synchronous collaborative academic writing

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Introduction: Golden Hours and peer learning

In the film and fashion worlds, Golden Hour refers to the first and last hour or so of sunlight in the day at dawn and dusk that may, for example, be captured by a photographer. In medicine, a Golden Hour refers to a window of time following physical trauma during which the likelihood is that prompt treatment will prevent death. For professionals, a Golden Hour might mean working when energy and abilities are highest. It is often used in relation to whether people assign themselves labels as a 'night owl' or an 'early bird' when we tune in to our circadian rhythm to find our most optimal or productive part of the day. In our context, Golden Hours are about scheduling and committing to protected diary time with colleagues,

where everyone must write solidly for a period of time in real time, editing over each other as we go and authoring different parts of the document as the mood and fancy takes us. We outline here the benefits of this process, both in terms of producing outputs and as a staff development activity.

Context: Promoting peer learning

We call our use of Golden Hours 'synchronous, collaborative academic writing' (SCAW). It is where two or more colleagues write together in real time on a shared document using a collaborative word-processing tool like Google Docs. When effective, SCAW leads to completed outputs in the form of publications, blog posts, conference papers, and so on.

SCAW is based on the broader and well-understood notion that educators' learning and development can be enhanced through social and peer-learning (Rienties and Kinchin, 2014; Savage *et al.,* 2021). Through 'sustained conversations' that examine, validate, challenge and develop practices and perspectives, individuals connect to form 'knowledge hubs' (Taylor *et al*., 2020, p. 1), allowing the flow of information across and between networks and learning communities. These socially situated relationships have been shown to be vital for professional development, yet the intentionality of the connections is not guaranteed; direct intervention has been shown to improve the size, strength and diversity of the network (Van Waes *et al*., 2018). We propose here that SCAW is one such intervention that can positively influence educators' professional development.

Rationale: Why write like this?

Linked to these themes of social and peer learning and the importance of sustaining conversations, SCAW has a number of benefits associated with writing with other people.

First, SCAW can create the conditions necessary for individuals to tap into a source of peer support and contribute to building personal, professional networks, by building and sustaining a culture of collegiality that uses writing as a way of sharing practice and developing ideas (Syska and Buckley, 2022)

Second, SCAW strengthens professional relationships by allowing individuals to tease out and draw on each other's strengths. Much of the value of a network is in the comfort that can be drawn from being with like-minded others and writing with them. This can also be highly motivating for those who struggle to start writing or suffer with writer's block and the tyranny of the blank page. For others, greater writing output is achieved when writing with colleagues. This links to another key associated benefit which is the in-built accountability of not wanting to let Golden Hour collaborators down by not doing your bit (Syska and Buckley, 2023).

There are multiple additional benefits of SCAW in Golden Hours which are grouped under pragmatic considerations of time management and the broader esoteric value of writing as a purposeful activity in and of itself.

First, in terms of the more practical and pragmatic dimensions, there are a number of benefits of SCAW for time management. The life of a contemporary academic is characterised by multiple competing priorities and complexity. In such a context, it can be difficult to maintain a full academic profile of teaching, leadership, research and scholarship. The potential of writing in collaborative Golden Hours is this process's ability to help individuals carve out and protect time for scholarly activity in an otherwise hectic schedule. This approach therefore optimises scarce time and energy – especially as academics get deep into the teaching periods prior to the winter and spring breaks.

SCAW also maximises effectiveness in terms of maintaining writing momentum and increasing publication outputs. Indeed, it is often useful to have more than one writing project on the go at a time, allowing for flexibility in mood and energy whilst ensuring that progress is always made in varying Golden Hour settings. Multiple Golden Hours with varying collaborators working on different writing projects can therefore facilitate this batch writing. Collaborative writing using protected time also allows those in leadership roles which commonly don't allow for research time (academic developers!) to remain research active.

In addition to these practical benefits, SCAW in Golden Hours is also beneficial to promote writing as a positive activity in and of itself and not just as a means to an end. Golden Hours provide an opportunity to use writing as a way of thinking. In addition, to enhance writing technique, it is often advised (Jensen, 2017) to write regularly. Finally, this kind of collaborative writing can help individuals generate ideas on next outputs while one is being written.

Considerations for establishing a purposeful collaborative writing partnership

There are a number of considerations to bear in mind when establishing a successful collaborative partnership to undertake SCAW in Golden Hours.

In the authors' experience, SCAW is most effective when the collaboration takes place with individuals who have a shared desire and incentive to publish, like each other's company, and can communicate well together. It is also important that the collaborators respect each other's contribution, writing processes and strengths. For example, in our case, one writing partner is naturally loquacious and tends to write themselves into consciousness, whereas the other happily and gleefully chops out words and has a more natural ability to synthesise ideas. In order for such a collaborative writing partnership to work effectively there has to be a foundation of trust in each other's styles. Such a contrast is also good for momentum as there is rarely ever a blank page, which is often one of the key barriers people find with getting started with writing.

Linked to this, Golden Hours need to be non-judgemental free-writing spaces so that collaborators are not hung up by the usual writing conventions of correct spelling, grammar, vocabulary and punctuation. As such these dedicated writing periods need to be truly free in the sense of focusing on the ideas rather than the precise expression of those ideas.

Second, we all have varying circadian rhythms so it's important to schedule a Golden Hour which seeks compromise and consensus but which broadly aligns to all collaborators' prime concentration time. This may make it difficult to write with opposites *i.e.* night owls and early birds.

Third, it is important to recognise that it will always be hard to dedicate time to SCAW and so to be effective, the time needs to be scheduled and protected in

the diary. Linked to this, all collaborators need to commit to the scheduled Golden Hours once they are fixed and participate actively within them. This active participation requires the elimination of other distractions like email alerts and social media notifications. It is also important to consider whether the scheduling of writing sessions needs to be done for multiple sessions in advance so that there is always a session in the diary. This is crucial to ensure that normal life does not take over potential free diary slots into the future. Indeed, when considering future sessions, the goal for next time needs to be set before the end of the previous session to eliminate that time at the beginning of the hour when everyone says 'what are we doing today?'

It is also worth considering establishing collaborative writing as an online activity only in order to eliminate time wasted on the conventions of in-person meetings *i.e* the inevitable small talk, sourcing refreshments, seating arrangements, and so on.

Finally, it's important to stop at the point of satisfaction with what has been achieved in the session – work to goals rather than strictly to time.

Conclusion

We set out to explore the idea of Golden Hours as a means of producing scholarly outputs whilst also bringing colleagues together in a peer support and learning network. We have highlighted a number of benefits of deploying SCAW in Golden Hour contexts and indicated a number of considerations for their successful implementation.

In essence, Golden Hours is an effective form of intentional connection that allows the flow and development of knowledge and is recommended particularly for those who either struggle with the writing process itself, or with simply finding the time to write. In an ever more contextually complex and challenging professional setting like academia where 'publish or perish' is often cited, using SCAW in Golden Hours could be the answer for maintaining a truly integrated academic profile which constitutes the key elements of learning and teaching, leadership and research; all elements being usually required for promotion, progression and professional development.

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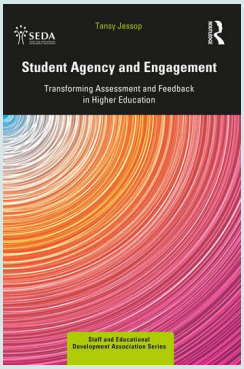
SEDA News

New SEDA Series book

The latest SEDA Series book was published on 2 October 2023. It is by Tansy Jessop, Pro-Vice-Chancellor for Education and Students at the University of Bristol, and titled *Student Agency and Engagement: transforming assessment and feedback in higher education.* Find more about it on the Routledge site: tinyurl.com/yjk5nypv



SEDA/JISC Student Partnership Impact Award

SEDA has just announced the names of the 27 individuals and the 7 teams who have won their SEDA/JISC Student Partnership Impact Awards. The full list can be found at https://www.seda.ac.uk/news/student-partnership-impact-award/

SEDA's Spring Conference

The dates for SEDA's Spring Conference 2024 have been announced – save the 16 and 17 May 2024 in your diaries. The call for proposals will be made soon.

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