PLAY. WORK. LEARN

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Project details

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Programme: PgC Teaching and Supporting Learning in HE.
Module: The Developing Practitioner

Exploring industry employees' and undergraduates' responses to playful approaches to developing creative thinking.

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Hello

Most colleagues will know me as a longstanding member of the marketing team: Prospectus Woman (what a lame superhero name!)

Fewer will be aware that I've added 'budding lecturer' to my bio; hence this magazine, which details the action research project I carried out for my **PgC Teaching and Supporting Learning in Higher Education**.

I hesitated before choosing a topic which is close to my heart; using a playful attitude to learning within HE, with a focus on creativity. Why the trepidation? The critical chimp on my shoulder (look up Steve Peters' The Chimp Paradox if you too have a mean little voice chipping away at your self belief) said "Play's for toddlers! It's too trivial for a place of serious learning. And creativity? That's just for art students! Couldn't you come up with something more intellectual, newbie?" I wavered. Then a bunch of Harper students came to play, did some amazingly creative stuff, and together we told the chimp to get lost, 'cos he's wrong: Play is powerful and we're already seeing great results with it at Harper, as are many other universities and workplaces. Don't take my word for it - I hope you'll enjoy the students' voices and examples of playful practice that follow.

Playful fact

I saved the legendary jazz musician George Melly from being maimed by an unsteady stuffed giraffe...

PL*Y IS NOT A FOUR-LETTER WORD

Introduction and literature review: playful approaches to the teaching and learning of creative thinking

This doesn't look like a research paper!

Ordinarily, presenting research would begin with a thorough literature research, written in a certain format. But this is action research, a "powerfully liberating form of professional enquiry because it means that practitioners themselves investigate their practices as they find ways to live more fully in the direction of their personal and social values. They are not told what to do; they decide for themselves what to do, in negotiation with others." (McNiff, 2016)

And so it was that, in agreement with module leader Lydia Arnold, I decided to not only study what I enjoy and am enthusiastic about, but to present the project in a way that excites me and builds on my professional skills: creating a magazine that informs, gives people a voice, and hopefully looks pleasing. If nothing else, I've enjoyed doing it, and if you can't have some fun investigating playfulness and creativity, when can you? Hence, what follows is a precis of some of the rich literature surrounding this subject, which continues into my discussion of results on pages 10 to 22.

Creative thinking

Creativity is a key European education policy (Griffiths, 2014) and highly valued 21st century skill; The World Economic Forum predicts that "by 2020 it will be one of the top three most important skills for future jobs, alongside complex problem solving and critical thinking" (Norris, 2018). It is particularly beneficial for entrepreneurship (Lameras, et al). Educators, scholars and business stress it is an essential skill, with the onus upon schools and universities to prepare students for a future that will require resilience, imagination and complex problem solving skills (Robinson, 1999, 2010; Wagner 2010, Chen and Yuan, 2014; Barrett, 2017).

Creativity has many definitions and connotations but this project adopts the view of Robinson (2011):

"Creativity: The process of having original ideas that have value."

And as Linus Pauling, Double Nobel Laureate, chemist, biochemist and peace campaigner, said: "The best way to have a good idea is to have lots of ideas."

So what does creative thinking look like? Pouliot (2013) identifies adaptability, an inclination to take intellectual risks, self-belief, acceptance of ambiguity and uncertainty, the ability to brainstorm, ask questions, synthesise and communicate ideas as key attributes of creative people. The ideas they produce do not have to be completely original, only novel to the individual (Donnelly, 2004) and often involve combining established ideas in unusual ways to create something new – what Einstein called 'combinatory play', and the basis for the creative workshop at the heart of my action research. Some of the barriers to creative thinking include fear of failing, desire for security and to avoid ambiguity, failure to engage with tasks and inability to relax (Reddy, 2015). A playful approach to teaching and learning can help to break down these barriers.

Playful learning and teaching

Firstly we must distinguish between play and playfulness. Sicuart (2014) says:

"Play is an activity, while playfulness is an attitude ... what we want is the attitude of play without (necessarily) the activity of play.

I have realised from discussions with many people throughout this project that play usually conjures images of downtime, having fun; less serious than the real business of work, a luxury. And it can be all of these things. Or not. Play in higher education is not wearing a clown suit and telling jokes (unless you want it to be). Rather – as I introduced it to the participants of my project – it is approaching learning and teaching with an

open, curious mind, using one's imagination, taking enjoyment in learning, and being open to exploring possibilities, taking intellectual risks and treating 'failure' as a valuable part of the process.

While play and playfulness are valuable catalysts in many arenas, play and creativity go hand in hand. Sutton-Smith (1999) describes the root of play as engaging creatively with the world. James and Brookfield (2014) add: "Our vision of an engaging classroom is one where students have the freedom to bring qualities of creativity, imagination and play into their formal learning with the same energy and spirit of discovery that they adopt for learning in the other contexts of their lives."

Play culture is already embraced by entrepreneurs (Williams, 2010; Cantwell, 2013) and several universities are recognising its benefits, including Portsmouth, Leicester, Brighton and Manchester Metropolitan (Whitton, 2016). The University of Coventry is another player, home to the Games Lab and other ventures (e.g. Arnab et al, 2012). Playfulness has been associated with better academic performance (Proyer, 2011).

As Whitton points out, playful learning is no easy or trivial option: it requires students to develop intrinsic motivation to learn, to risk failure and learn from it, to reflect, practice, challenge established knowledge, and look beyond exam grades and even their own self-interest to the needs and benefit of society. No easy feat and, for some, an unattractive proposition.

Gaming and gamification

Much of the literature on play in HE revolves around both digital and tabletop games (see Moseley and Whitton, 2015 and Lean et al, 2018), gamification and learning through toys and devices (Lego Serious Play, for instance, is widely used). However, this is too broad to explore fully in the context of this project. Indeed, there is a view that playing games and playfulness can make unhappy bedfellows in that the requirement of most games to follow rules, their adversarial nature and ultimate aim of winning precludes playfulness (De Koven, 2014) though Lean et al argue that rule following and 'playful playing' aren't mutually exclusive. Additionally, one of the celebrated aspects of playful learning is its drive to encourage intrinsic motivation to learn (Whitton, 2014) whereas many games are based on extrinsic rewards (prizes for reaching new levels of expertise, for instance), an approach that may suit an increasingly neoliberal and consumer-oriented HE landscape (Naidoo and Williams, 2014; Budd, 2016) but not necessarily a passion for learning for its own sake.

Is it for Harper?

The question in my mind throughout this project has been "why should Harper Adams embrace either playfulness or creativity?" After all, this is a university rather than a kindergarten, specialising in the land rather than the arts, isn't it? Why do our students need to be creative when they're heading for careers as surveyors, engineers and agronomists rather than artists or designers? Why should lecturers embrace play, imagination, risk taking and creativity? How exactly, do students, staff, employers and the institution itself benefit from this approach? Action researchers undertake their enquiries to contribute to new practices, knowledge, ideas and theory (McNiff, 2017). I knew my own motives for choosing this area of research: I learn best in playful, active environments with humorous, adventurous teachers who are authentic, open minded and curious, encouraging risk taking, and convinced of the rich

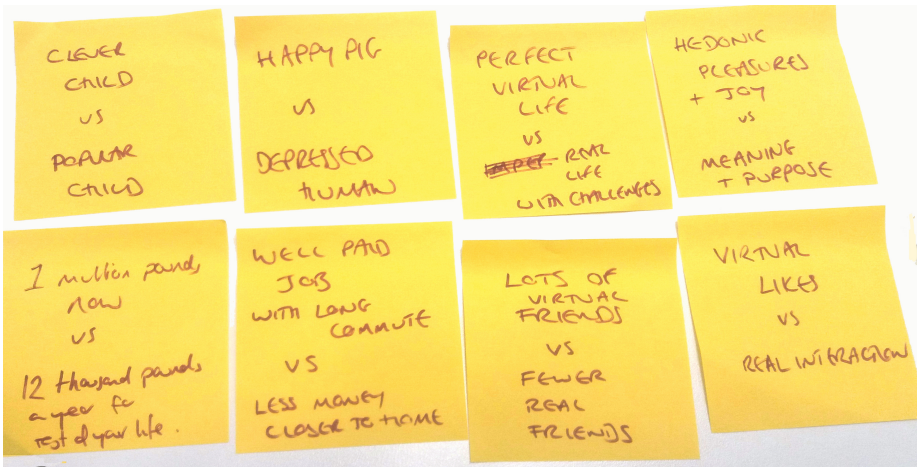

Image: Creative sparks: A games jam session at the Playful Learning Conference 2018

learning to be picked from the bones of failure. And naturally, I'd like to incorporate elements of that in my own teaching. But what's in it for everyone else? Who's to say this approach is enjoyed by others, or that any benefits other than enjoyment can be gleaned from it?

Firstly, as we've seen, creativity is widely agreed to be a vital skill for addressing the problems and challenges of the 21st century. Bohm (1968) mused: "Creativity of some kind may be possible in almost any conceivable field ... it is always founded on the sensitive perception of what is new and different from what is inferred from previous knowledge." Ken Robinson (2011, and TED, 2006, 2010) known for his passionate opposition to the undermining of creativity in mainstream education in the UK, emphasises that creative thinking applies equally to all subjects, from arts to engineering, and roles beyond education.

Aifric Campbell, of Imperial College, London, carried out a year-long experiment (The Guardian, 06/11/14) challenging STEM students to read and write creatively, and observed that they "learn to tolerate uncertainty in process and outcome, embrace risk (creative, intellectual and performance) and practice humility - since writing is an exercise in failing better each time." Engineering students who participated in this playful study agreed the experiment had enabled them to "produce more creative and well thought out solutions to engineering problems" and exercise "two different yet complementary forms of creative problem solving." Scientists' experiments often begin with the question "what if we tried ...", an open-minded, curious approach to trying, failing, learning, adapting, trying again, failing again ..... an inherently playful and creative approach.

Play, after all, is one half of our own university motto (pg 4), at least as it is interpreted by students:

"Work hard, play hard"

Kane (2014) laments that play is usually seen as the opposite of work, lacking meaningful purpose – and such is its position in our motto; the inference that playing hard is the pleasurable release after the work is done. Kane argues that while play is primarily seen as entertainment, a release from the rigours of work, rather it is an engine for critical thinking and challenging value systems - surely one of the key tenets of quality university education?

Want to play?

Of course, playfulness won't be for every learner, teacher or scenario – see page 24 for its application in different scenarios at HAU. While we all have the potential to be both creative and playful, many have little interest in engaging with either, and would experience such an approach as inauthentic and discomforting. This action research project was prompted by the complaint of a student of mine who questioned a creative task she had been set, her view being "Just because I'm on the extended foundation route doesn't mean I'm thick and can only do work for babies".

However, for those who feel even the slightest curiosity about this approach, I hope the material – and the student voices – emanating from this project will be of interest. After all, as Langan and Smart (2018) concluded following the 2017 Playful Learning Conference:

"The only failures would be to not allow those that wanted to join in to have the chance to be invited and decide for themselves, and for those with good ideas to encourage play to not try out their ideas and share them."

Treat this, then, as an invitation to play hard/work hard.

Project remit

Research which addresses a real need in your area of practice (marketing, team work) and which contributes to your role specific development and your progression within the UK PSF.

Key research questions

- What are students' attitudes to creativity?
- Will the playful approach I am drawn to appeal to students?
- What are the benefits for stakeholders?

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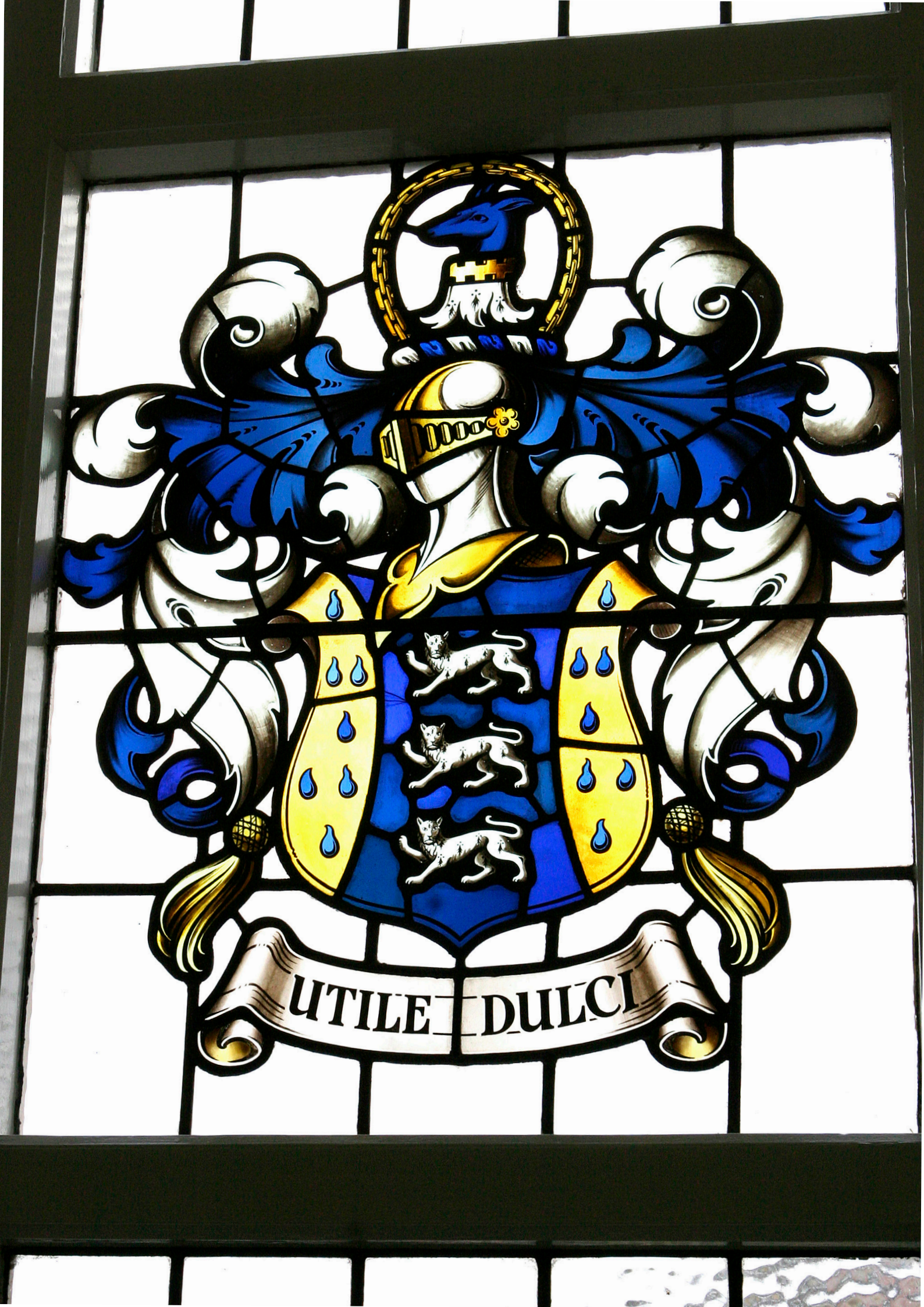
"COMBINES THE EDIFYING WITH THE ENJOYABLE; TURNS BUSINESS INTO PLEASURE"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WHERE'S THE ACTION?

"As a practitioner ... you have important things to say ... (action research) helps you voice those things in such a way that others will listen and want to hear more."

McNiff (2017)

Action research is a democratic process open to all, with the intention of creating knowledge and generating theory in accordance with our values; to improve learning in order to improve our practices.

There are multiple actions within this research project. The most obvious being the post-creative workshop focus group and surveys exploring student and industry staff's responses to playful learning and developing the building blocks of creativity, creating a space for myself and the participants to experience something new and be willing to be changed by it. Together, investigating our learning with the intention of improving it, we have become what McNiff calls 'knowledge creators and actors', building on Arendt's position (1958) that power lies in the conversations of groups who 'think and act in relation to their commitments'.

My literature review is an action too – building my own knowledge to take forward into my practice. I began with a raw instinct about the benefits (for myself, students and the institution) of a playful approach which my reading has both bolstered and challenged.

Discussing my project with colleagues through both formal channels (with my study mentor, and through PebblePad with fellow PgC students, for instance) and informal coffee-room and social media conversations, as well as participating in external online forums and networking at The Playful Learning Conference, can also be seen as an action. Such collaboration not only informed the focus and design of my project, but has widened my knowledge of the playful practice already happening at Harper, which I have explored on page 24.

Finally this magazine – a format I intentionally chose as an accessible and attractive method of sharing information – is another form of action, available to be used by peers as they wish.

"A key ingredient of play is thinking, manipulating, changing and adapting rules"

Manuel Sicuart
Play Matters

METHODOLOGY

RUNNING AND ANALYSING A PLAYFUL CREATIVE WORKSHOP

Method and data collection

While action research is gratifyingly flexible, and less prescriptive than more traditional research methods, one of its key requirements (differentiating it from thoughtful action: Tripp, 2003) is the use of research methods and data collection. I chose to use two methods: following two playful creative workshops, one with undergraduates and another with Dairy Crest staff, I staged a focus group and survey respectively to gauge their responses to a playful classroom geared toward enhancing creative thinking.

Location

Both sessions took place in the Spark Space, a room within the Dairy Crest Innovation Centre specifically designed to encourage creativity, featuring a brightly coloured decor, inspiring objects and colourful beanbags instead of chairs - and drew very enthusiastic reactions from participants.

Easing in

The first session took place with seven staff from Dairy Crest from a variety of roles. Having eased into the session with a fun ice breaker and a relaxed chat, I introduced myself and my credentials, followed by a visual and playfully designed PowerPoint presentation about the nature of creativity, barriers to creative potential, and alternative approaches to thinking more innovatively. I explained how brain breaks, especially undemanding physical tasks (UPTs), can encourage creativity and invited participants to use the colouring pens and pages provided to help create a mindful state of flow before and, if they chose, throughout the exercise. I gauged, by a show of hands, who thought of themselves as creative. I promised them they would create ideas during the session that were entirely novel. The presentation and the workshop itself were adapted from a 2017 Guardian Masterclass (tinyurl.com/y75295pu) with the anthropologist and creativity expert Dr Michael Bloomfield, with his permission.

Workshop one - industry staff

I told the participants a short story: walking home through a woodland, after a night at the pub with friends, they spot a battered old suitcase. Trying the clasp, they're surprised to find the suitcase opens and within they find an object. Their task is to spend two minutes, eyes closed, deciding what the object is and imagining it in great detail - how it looks, feels, smells, sounds, its texture, shape, and so forth - before describing it to their fellow participants if they feel comfortable doing so. Next, each participant rolled a dice, the numbers of which corresponded to a list of six objects: 1. Mirror, 2. Bottle, 3. Book, 4. Flag, 5. Light, 6. Box. All of these objects were deliberately chosen for their potential to be imagined in very different forms -a mirror, for instance, could be many different shapes, sizes, antique or new, full length or a vehicle's rear view mirror, or a distorting 'hall of mirrors' circus piece. Again, each had two minutes to deeply imagine their object, before sharing with the group. Their next task was to join these objects together, in their imaginations, in a memorable way. So, for instance, if the first object in the suitcase was a bottle of whisky, and the second a light, they might imagine a highly carved candle placed in the next of the whisky bottle. Another person, with the very same object names, would imagine them quite differently, and bring them together in a different way, as transpired in the session.

The next round of the game saw participants roll the dice again, and imagine another object (tree, card, stone, cat, tortoise, or liquid) before sharing their thoughts. They repeated this again (a handle, marker, plant, cone, flower or bug) bringing the two objects together in a memorable way. We then repeated this once more with two different objects (the first list consisting of doctor, scientist, performer, artist, cook, patient; and the second a sphere, hat, brush, wood, needle or vehicle).

After a quick brain break - a drink and stretching of legs - we began the second, more creative part of the exercise. I asked the group to spend a few minutes bringing two of their objects together in their minds to create a piece of furniture, sharing their creations with the group. The second challenge was to bring two different objects together to create a TV advert for beer.

Workshop 1 research method

Finally participants completed a short qualitative Survey Monkey questionnaire about the session, using largely open ended questions (below, based on my literature search) to elicit richer, broader responses (McNiff, 2016).

1. Did you enjoy the creativity workshop?
2. Did you see yourself as a creative person before the session?
3. Did you feel more confident about your creativity after the session?
4. Do you think using the words 'play' and 'playful' is off-putting? Does it make the session seem less valuable?
5. Is such a playful approach likely to help you learn and retain knowledge and skills?
6. How did you feel about being playful in the workshop, using your imaginations and sharing with colleagues?
7. What are the pros and cons of learning in a playful way?
8. Are there any barriers in your workplace to learning/working in this way? Could any subject be taught in a playful way?
9. Can you describe ways in which you might use this technique in your life/work?

"Play is the answer to the question: How does anything new come about?"

Jean Piaget

Workshop two - undergraduate students

Participants of the second session were: one recent graduate, two first year BSc students, and four Year 0 EFDP students.

The session differed only in that I added an element of pressure; after the presentation, I set participants a timed task - to come up with a completely original advert for beer that they had to share with the whole class. I set a loud countdown for two minutes, reminding them several times that time was running out and that I was really looking forward to being "blown away" by their ideas. The purpose of this was to demonstrate one of Michael Bloomfield's points: that being under pressure to perform creates stress, increases gamma waves within the brain, and produces high cortical arousal, all of which have been found to reduce creativity. The students all reported feeling anxious about this, and none of them could think of any ideas at all - in contrast to the highly creative ones they came up with later, when joining together their imagined objects.

Finally, I conducted an hour-long focus group, in which we discussed the questions shown left. Again, these were worded in an open-ended manner (McNiff, 2017) to encourage students to relate their own impressions and experiences, and engaging in conversation together, creating a richer range of responses, and often introducing themes and ideas the researcher hasn't expected. This discussion was recorded with a dictaphone, with participants' permission.

Data analysis

I conducted a discourse analysis of the transcript of the focus group (available upon request, and shared with module leader Lydia Arnold as part of my PgC portfolio in PebblePad). The questions we explored can be seen overleaf. From this, and the comments received in the survey, I was able to identify several themes, which are explored on pages 10 to 22.

Ethics

While the nature of this research was unlikely to be harmful, I was careful to proceed ethically - gaining approval for the project from module leaders in the first instance, reviewing my planned action for any risks, providing students with full disclosure as to the content and purpose of the research session, and obtaining students informed consent before proceeding.

While more than half of the participants were happy to be identified, a few chose not to: therefore I have kept all participants anonymous apart from two who were happy to have their photos shared.

Participants in the Dairy Crest session volunteered in response to an invitation to all Innovation Centre staff from their manager, while of the seven students taking part in the 2nd workshop, four had been taught by me but not currently, one was a graduate I have stayed in touch with.

In the transcript of the undergraduate session (available on request) and in the excerpts used on pages 10 to 22 all names have been changed, as well as the names of staff mentioned by students during the focus group.

"Play (not necessity) is the 'mother of invention'"

Brown (2009)

QUESTIONS FOR FOCUS GROUP

1. Was the playful nature of the session **enjoyable**, and why?
2. Is a playful approach **suitable** for Harper Adams?
3. Does using the words 'play' and 'playful' make the learning seem less **important?**
4. How did you feel during the creativity practical? Did your **feelings** change as the session went on?
5. Are there any **barriers** to teaching and learning in a playful way here?
6. If a lecturer uses a playful approach in a lesson is it important that they **explain** why?
7. Would you **welcome** more playful, creative lessons? What might prevent lecturers using a playful approach?
8. What might **prevent** students engaging with playful lessons?
9. Within a 'playful lecture' might you feel **freer to explore** ideas and different ways of thinking?
10. Is it important to be given the opportunity to take risks in your learning, and to **'fail'** without being judged?
11. If your work is being assessed, are you more likely to play safe to make sure it's right than **risk** doing something different?
12. Is it important to learn to **think** creatively whilst you're at university? Why?
13. Do you see creativity as a **valuable** skill for your lives and future careers?

RESULTS & DISCUSSION

Exploring industry employees' and undergraduates' responses to playful approaches to developing creative thinking.

Nine main themes emanated from the survey and focus group conducted after staff and students took part in my creative workshop. I have grouped these under three headings:

1. Play Hard, Work Hard, which looks at positive responses to playful learning and creativity.
2. The Magic Circle, discussing learning spaces.
3. Fail is Not a Four Letter Word, which addresses the potential barriers to learning in this way.

The main areas of the UK PSF this project involves are: A2, A4, K2, K3, K4, V1, V3, V4.

Whilst this results/discussion section is underpinned by literature, I have chosen to bring learners' voices to the fore: you will read many of the participants' verbatim responses to the experience here. I see myself as their co-learner, having learned as much, or more, from them as they did from me. I have refrained as much as possible from interpreting their words, preferring to let them speak for themselves. I have, however, kept in mind throughout the project the remit and three research questions detailed on page 3 and I have noted where I can see potential improvements to my practice. I see this very much as the beginning of an ongoing project, and hope it will serve as a talking point amongst staff who are already using this approach or want to develop it in collaboration with colleagues.

Creativity & problem solving

Creativity and problem solving are not one and the same – but they do feed into and off each other. Trilling and Fadel (2009) identify problem solving, creativity and innovation as vital 21st century skills – skills they say that many graduates lack when entering the workplace. In order to face a rapidly changing world and workplaces, from diversifying farms to new product development and land management, our students will need to come up with novel solutions to problems. A growing number of entrepreneurial students are creating start-ups after their degrees, and sometimes during their placement year or earlier. Lessons to help students to acquire problem solving skills feature across all of our courses, while the Business department offers a module focused entirely on creativity. While many of the participants of my study felt they were not creative per se (page 13) they agreed that encouraging creative thinking was a positive that should be a core part of their studies, and recognised that such skills were valuable in everyday life and a range of careers. (V4)

Stevie: "I think it should be incorporated into everything we do rather than as a separate module because it's how it's applied to real life situations."

Claire: "Some sort of thread that runs all the way through?"

Stevie: "Yeah."

Charlie: "I think it's a part of everything. Pretty much everything in this room, someone has come up with, even if it's a laptop, someone's made that laptop. It's incorporated in everything and it's something a lot of people don't think about but someone's created that. So I feel like it's important."

Claire: "You want to follow an animals route?"

Charlie: "Yeah, vet nursing."

Claire: "How would you see yourself using creativity in that career?"

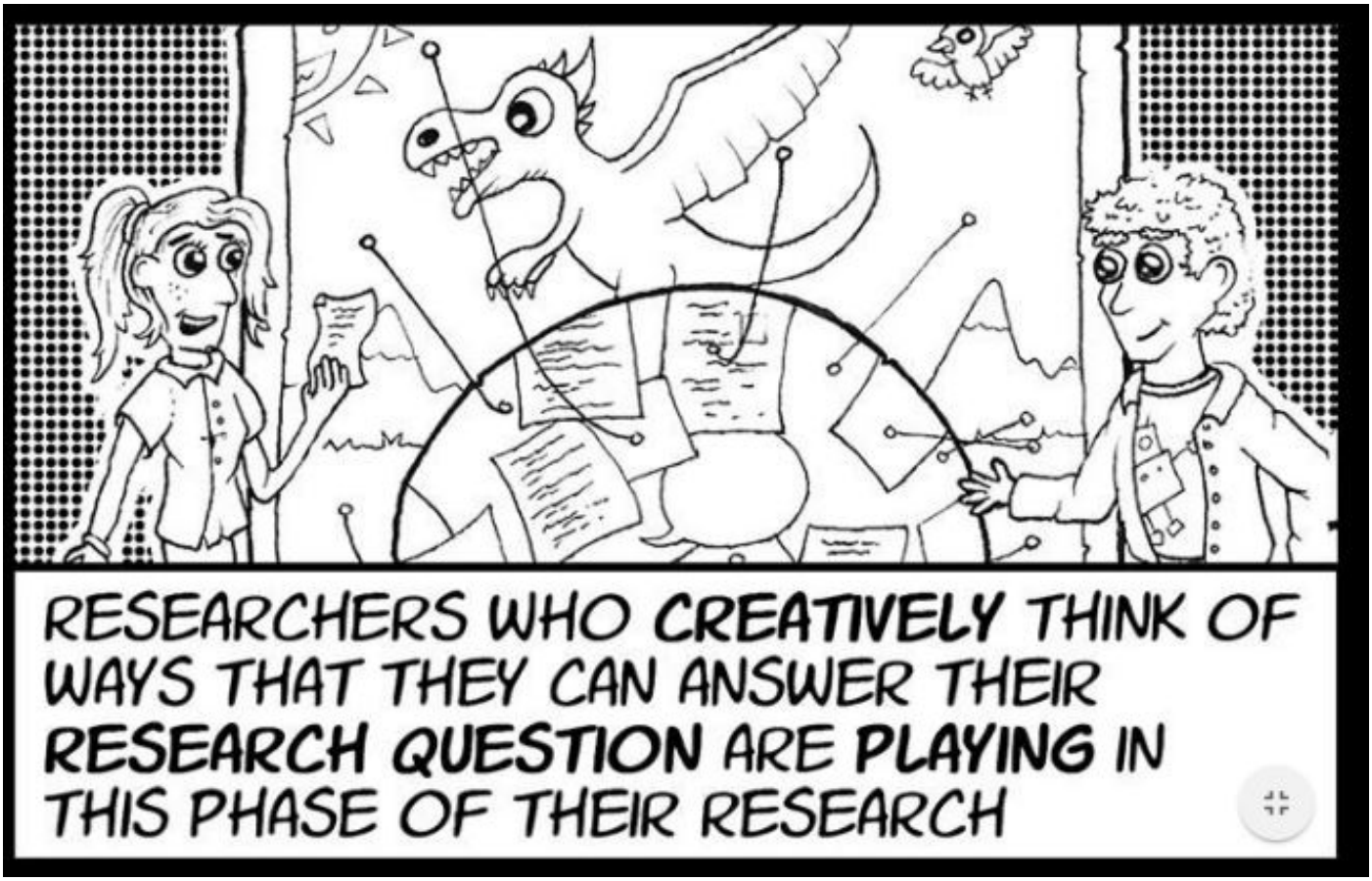
Charlie: "Well, I mean, no matter what you learn, especially when you're dealing with people and animals, there are situations you'll come across that you've never trained for, because you can't prepare for everything that's going to happen, you can't prepare for every situation that's going to come through that door. So problem solving will be a big part of that, of 'Ok, so I have this information and this information – I've never dealt with this before, how do I draw from that to fix this problem?' So I think it's very important."

Given the positive response to the playful approach, and the increase in most participants' perception of themselves as more creative (page 13) following this simple and quick workshop, I will include elements of this approach in my teaching this coming year, particularly for Marketing Principles. Following discussion of my findings and a CPD marketing event we attended at Aston University, Rebecca Payne and I have discussed using more hands-on practical sessions within both the lecture and tutorials. The 'two objects' technique would lend itself well to a session on advertising, for instance, or coming up with new products and methods of marketing them, or even create their own object cards. Similarly with the Team Challenge module where groups could compete against each other to come up with novel ideas. Marketing is an inherently playful and creative career and the sooner students of it can flex their creative muscles (especially those foundation degree students who begin placement immediately after completing the module), the more they will benefit from their placement and eventual careers. (A1, A2, A4, K2,K3, K4, V3, V4)

Creativity as a vital graduate skill

According to the government (The Future of Work, 2014) creativity, along with problem solving and communication skills, is one of the key characteristics of a high-skilled minority that will have "strong bargaining power in the labour market" of the future. The World Economic Forum (2016) has it as the third most important workforce skill (leaping seven places in five years), and the International Youth Federation teaches it alongside problem solving, empathy, resilience and determination in its Passport to Success programme, providing young people with future-fit work and life skills (IYF, 2018). McMillan et al (2018) identify creativity as one of the key skills needed by graduate scientists, and see active learning as the best way to inculcate this, including problem-based learning and flipped classrooms (whilst acknowledging a reluctance to prepare adequately on the part of students, reducing this method's effectiveness). Play, meanwhile, is seen as particularly useful for those who will work within creative and collaborative working environments" (Rice, 2009). (K2, V4)

The graduate who took part in the creative workshop reflected that, given the need for creative thinking on a daily basis in her own food business (and having been employed in the food industry), learning these skills in a supportive environment whilst an undergraduate would have been helpful.



Above: Walsh and Clementson (2017) A visual guide to play in HE

Ali: "I think there's a definite need, there should be more sessions like this. And I think the more that are given the more people will realise the benefit of them. Especially in modules with product development and that kind of thing because I don't think we did nearly enough of this kind of thing. And coming out the other end (as a graduate) and looking back, you just think 'Wow, why didn't we ever do this kind of thing' because it really helps running your own business or in product development: it's the kind of thing that happens in the workplace so why not as part of your course? You just cover more of the technical things and the ... I mean, we never did anything like this, anything creative, really."

Claire: "And food's a really creative industry...?"

Ali: "Absolutely, yeah. But I can't remember any sessions like this." (Turns to Jamie, on similar course) "Do you do anything?"

Jamie: "Well, we get, like a session where we have to go to the food labs and they're like 'Oh yeah, you've got to create something, think of different flavours and stuff', and I think you're put in a spot where you don't let your mind think about stuff."

Creative thinking for students such as these, studying and eventually working in the food industry, will be a valuable skill. A 2015 Rabobank report highlighted a need for innovation in three key areas: sustainability, convenience and health, with food specialists creating products using novel ingredients (anyone for insects and micro-algae?) to engineer-designed 3D food printers and wearable technology to create personalised diets, to marketers creating augmented shopping experiences. Not to mention farmers utilising agri-tech solutions. All require a creative, innovative mindset to identify needs, create solutions, implement usage and communicate their benefits. University should be the place this mindset is nurtured. As Walsh (2015) observes: "A student who feels safe to play will overcome challenges and think of new, innovative, solutions, compared to one who follows set paths who may always be reluctant to depart from that path and discover new knowledge, meet new challenges, develop new solutions." Helping students develop a belief in their own creative potential and the building blocks to develop it, through simple exercises such as 'two objects' could help them develop this mindset. (V4)

Reclaiming play as a learning tool

Literature abounds on the benefits of play in childhood (and amongst animals) but far less so when it comes to adults' pedagogical relationship with play (Brown and Vaughan, 2010, Corbeil,1999) Kane (2014) and Brown (2009) regret this positioning of play as primarily recreational for adults rather than a serious learning tool. This societal attitude was reflected by both sets of participants (see also Frivolous Play, page 22):

Sam: "I think we've been conditioned as a society to think of play as ... like we come from that sort of Protestant work ethic, you know, 'you must work, work .... work sets you free', sort of thing, and that if you're playing about you're not working, you're not being productive. Whereas I guess we need to change the way play is looked at, it's an important part of human existence, and of animal existence as well. We all play don't we? It's a way to unwind and to learn. It is learning."
(Murmurs of assent)

Ali: "Yes because we encourage our children to do it, don't we? And we consider that to be educational. All of the toys that we purchase for them, we're looking at ways to teach them, so I don't know why that suddenly finishes when you become a grown up."

Stevie: "It's mostly academic, we're tending to become academic rather than creative, that's why we lose it because we just don't use it"

Nørgård et al (2017), aim to redress this with the creation of a signature pedagogy for playful learning in higher education – a new paradigm that promotes intrinsic motivation, reflective risk-taking and learning through failure, and academic experimentation within safe spaces, whilst acknowledging that the culture of extrinsic assessment within 'corporate universities' could be a barrier to such a pedagogy. (K2, V3)

Many universities are embracing Lego Serious Play across diverse subjects (James, 2013), other games (Arnab, 2016), storytelling (Benmayor, 2008) and more, all of which could be (and are being) applied to learning at Harper Adams. I personally would love to explore Williams' (2010) concept of 'play projects' with students. Williams devised this approach for entrepreneurs to explore an area of work they feel drawn to for a limited time frame (usually four weeks) without the pressure of long-term commitment. Participants set themselves tasks to complete within that time, reporting on their progress and seeking support from a mentor. Williams found that by removing the pressure to succeed, but instead emphasising the value of exploring a project (or "playing"), participants were more motivated to get started, enjoyed the learning process, discovered what they were good at and enjoyed doing, and were surprised by what they had achieved – choosing to further progress the idea or try a new play project. Could we find a way to incorporate this approach into modules in a way in which students were still reliably and fairly assessed, yet able to flex their creative muscles, develop self-motivation, and work in a way that encourages reflection and innovation? (A1, A2, A4, K2, K4, K5, V4)

Participant responses following the creative workshop

Did you think of yourself as being creative before the session?

- **Definitely 14%**
- **A little 35%**
- **No 51%**

Did you feel more creative after the workshop?

- **Definitely 77%**
- **A little 7%**
- **The same 14%**

Is such a playful approach likely to help you learn and retain knowledge and skills?

- **Very much: 71.5%**
- **A little: 28.5%**

"Serious play is not an oxymoron; it is the essence of innovation"

Michael Schrage, MIT

THE MAGIC CIRCLE

The term 'magic circle' was coined by Huizinga (1955) to describe a space in which play happens, and has been developed to encompass 'safe' learning spaces where students can escape the rules and norms of the real world and construct their own reality. I have picked out three main themes from my research sessions:

1. **Learning spaces: psychological, pedagogical and physical (creating trust)**
2. **Breaks create space**
3. **Storytelling**

Learning spaces: psychological, pedagogical & physical

Rhodes (1961) defined one of the four pillars of creativity as 'press': the psychological, pedagogical and physical factors of a learning space (the other three being person, process, and product).

I deliberately chose to conduct my research session in the Spark Space within the Dairy Crest Innovation Centre because of its colourful, relaxed, comfortable décor: with its multi-coloured beanbags instead of chairs, coffee machines and decals on the walls, it is notably different to the usual learning spaces at Harper. McCoy and Evans (2002) found such visual spaces supported creativity. My participants responded well to the environment – flinging themselves gleefully onto the pile of beanbags, enjoying the novelty of half-sitting, half lying down, and the bright decorations. The sense of engaged relaxation was palpable. (A4)

"I found the environment created during the session was very conducive to creating thinking, much more so than a sterile typical work environment." Dairy Crest participant.

It would be interesting (and relatively inexpensive) to extend such treatment to more spaces around campus, echoing the relaxed appeal of popular public gathering points such as the Weston atrium, Faccenda ground floor, and the newly refurbished Students' Union. A good topic for future action researchers perhaps? (A4)

However, as Whitton (2018) points out, neither playful activities nor an inspiring space are enough alone to create safe playful learning spaces – working with staff and colleagues who they trust is more important, an observation borne out by my own research.

As Richardson and Mishra (2018) assert: "the relationship between teacher and student, the relationships among students, and the overall atmosphere of a classroom all play an integral role in the support of creativity. An atmosphere in which students communicate freely, accept and discuss new ideas, trust each other and support taking risks is an ideal climate for the support of creativity." DeHaan (2009) sees the teacher's role as explicitly guiding students in how to be creative by offering strategies for creative thinking. For my participants fear of ridicule or criticism were cited as barriers which were overcome once people felt comfortable with and accepted by their fellow participants and myself. "To begin with I was nervous as it was out of my comfort zone and I usually do not openly share ideas at the risk of them being criticized - I over think," one of the Dairy Crest staff commented, adding "but due to the small group and 'no wrong answer' environment, I thought it was a really good creative workshop". Others agreed:

"At first I found it hard and very uneasy – I'm not a confident person and don't necessarily see myself as super creative. But once others were sharing their ideas and they were imaginative, I felt easier to share mine – I didn't feel so silly!"

"I felt quite comfortable, and attribute this primarily to the open, positive, bright and bubbly demeanour of the session leader."

Undergraduates felt the fear of ridicule just as sharply, and the comfort of familiarity was a salve:

Charlie: "I know most people in the room; I suppose it helps when you know people. It's more sort of social pressure, isn't it, 'cos I think there's the whole ridicule thing in stuff like that. Like, we all sort of laugh at each other and do silly things whereas if it's complete strangers, everyone has that social front where they have to make a good impression and I feel like you would reel back a bit."

Sam: "Like Jamie said, you'd be nervous at first but if you start to hear other people, if someone else came up with a wacky idea you'd think 'oh well, they've done it so I will.' The first person to come out with something that's 'out there' then everyone one else would start to sort of feed off it. I think the atmosphere would change."

While the relatively small cohorts at HAU mean students quite often know many of their classmates, in larger groups it is unlikely all participants will know or feel entirely comfortable with each other – something to bear in mind when asking students to engage in a playful or active learning environment, though efforts to build such an environment over time could see rewards in terms of engagement – again, another action research project in the making! Small group work within larger cohorts, where students can become comfortable sharing ideas could be a stepping stone to develop the confidence in their ideas and in sharing them. Constructive feedback– from both lecturer and peers – could also help to encourage students' to try new approaches. (K3)

Breaks are important

Studies have suggested that the average attention span of adult learners is around ten minutes (Richardson, 2010) and that attention tails off as lessons progress (Bunce et al, 2010). My study participants referred to the importance of breaks several times: seeing playful learning itself as a refreshing break from the norm, and also the rejuvenating effect of taking 'brain breaks' (Camahalan et al, 2015; Schmidt et al, 216;) from work. Cuddy et al (2012) wrote of the benefits of 'power poses' (adopting an open, upright physical stance) on occasions to encourage feelings of concentration and self-confidence, especially before high stakes evaluations, exams, interviews, etc. Information on the benefits of mindful practice, meditation and exercise are extensively available and too numerous to list. Most of us can report times when taking a study or work break has rejuvenated our concentration and sense of wellbeing, as could the study participants. (K3)

Ali: "You might have a time limit or you've put pressure on yourself or someone else has put pressure on you to do something in a certain time limit and you're really overworked - and this happens with assignments too, it used to happen to me all the time and I'd just think 'I'm getting nowhere' and I'd sit for hours and hours and hours, empty screen, you know, and then someone would say 'Just go and walk the dog'. And then, in two minutes walking around a field, it comes to you."

Claire: "It's what Michael Bloomfield calls undemanding physical tasks or UPTs."

Ali: "I get frustrated with myself that I don't ... make myself take time out instead of always making the mistake of staying on the treadmill and nose to the grindstone. And then I wonder why I hit the wall and creativity is lost, because I'm not taking time out. And then, when you do relax, and just get talking to someone about the project, then it'll come to you."

Claire: "Do any of you do that? Take time for study breaks and just go for a walk or a..."

Sam: "Yep, I go for a run."

Laurie: "We go over to the Companion Animal House to visit the animals. And there's a dog in Student Services now that you can play with..."

Claire: Do you think that helps?

Laurie: Yeah, definitely. We've all signed up to go to the Companion Animal House in the evening."

Breaks in nature, even if simply viewed from a window, are restorative (Felston, 2009), and we have plenty of natural beauty available at Harper! Creating breaks within lessons, especially the longer ones, can pay dividends, it seems, whether a couple of minutes of chat, doing some mindful colouring in (something participants enjoyed greatly in the creative workshop), a longer break to leave the classroom for refreshments or fresh air, or a learning break by varying the content of lessons and the type of engagement. (K3, V1)

Below: Participants found that a break, 'colouring in' helped them to concentrate and feel more creative

Storytelling

Humans have been telling stories for some 6,000 recorded years, and storytelling is widely regarded as an important tool for learning and understanding (Abrahamson, 1998) and for problem solving (Jonassen and Hernandez-Serrano, 2002). Undergraduate participants linked storytelling to playfulness, saying it enhanced their understanding and ability to remember information and formulate ideas. Brown (2009) says playful activities such as storytelling and relating anecdotes engage emotion and therefore help us to remember. Judson (2017) urges educators to "reveal what is emotionally engaging about the topic". Thorsted et al (2015), in a study using play in problem-based learning found that play mediated a "more honest and profound dialog between students and their supervisor and through this the meetings became more meaningful, fun and interesting". (A4, K2, V3)

Charlie: "Yeah, cos (staff member) tells us things from her experiences and just general gory stories and stuff like that from what she's experienced and I actually remember those now, I have a memory from that, that was linked into the lecture rather than her just telling us the basic info. So, it's just little things like that, stopping halfway through for ten minutes to tell us a funny story - it just helps."

Jamie: "I think you always remember stuff if there was something entertaining that happened. So I would remember a lecture about a thing that I would never have remembered from high school because there was just a story I got told along with it because, you know, my teacher she used to talk about static but she used to use a cotton candy machine and she just used to have a little story about it and that's how we remembered it. And in the exam it just helped me ... it's just helpful."

This reflects Futter's (2018) paean to storytelling in education and enhancing creative thinking: "In using the story-form in teaching we share topics in emotionally-charged ways. Emotion helps affix the idea in our mind ... we will cultivate our students' imagination – the ability to think of what is possible."

Storytelling was also closely associated in the students' minds with teacher personality and humour, and creating a warm atmosphere (Jeder, 2015; Haack, 2016):

Charlie: "Although I agree that every lecturer can certainly attempt (storytelling) and it might go right, I think that a lot of it is down to personality. So, my first year in college there was one specific module leader and I remember his name - it was Sid - and I remembered most of the information that was in there because of how he was and his style of teaching. And it wasn't like he really put himself out there and tried really hard, it was just, it came naturally."

From my perspective, as a former journalist, now publications officer, and enthusiastic relater of anecdotes, this is a positive thing, and something I have witnessed numerous times amongst Harper colleagues. The students' recognition that lecturers' styles and preferences are key to the success of this approach reflects Wedoe's musing (2015) that "To create a valuable play-inspired learning environment the teacher must find this kind of activity enjoyable and meaningful. Only those teachers who are capable of experiencing a certain amount of 'flow' have positive attitudes toward play as an effective teaching method."

I've experienced students' positive reaction to storytelling, both in my own classes and those of colleagues I've observed this year. The responses emanating from the focus group encourage me to continue and expand this approach, and to observe other colleagues who use the technique successfully. In the workshop students also, after a nervous start, enjoyed sharing their ideas and hearing others. My task is to recreate a safe 'magic circle' environment in which they feel able to tell their own stories, asking questions to encourage them to explore and share their experiences. Prof. Mark Schofield shared his Three Little Pigs exercise, a story sequencing technique that could be adapted to many different topics, as could the simple process of asking students to change the form of a story: teaching marketing, in which story is king, this could be especially useful – e.g. rewriting the story of an advert to make it appeal to different segments. (A1, A2, A4, K1, K2, K4, V3).

> **"Creativity is a liminal activity. It happens in an ambivalent space between certainties."**
>
> Katz (2015)

FA*L IS NOT A FOUR LETTER WORD

While both student and staff participants agreed the playful approach and encouragement of creative thinking were enjoyable and valuable, they could also see downsides and barriers. These can be summed up as:

1. **Avoiding the intellectual risk-taking that enhances creativity through fear of failure**
2. **A crowded curriculum could preclude active/playful sessions**
3. **The terms 'play' and 'playful' could be seen as frivolous (reflecting deeper attitudes about the approach per se)**

Avoiding risktaking

a. Reframing failure

The willingness to take risks is seen as an important element of creative thinking (e.g. Dewett, 2011; Perry and Karpova, 2017; Martins and Terblanche, 2003; Gibson, 2010). But often fear of failure and the consequences can discourage intellectual risk taking, and consequently creative potential (Smith and Henriksen, 2016), growth and learning (Dweck, 2010). Indeed, one could argue Dweck's 'growth mindset' is integral to creativity.

And yet, in the current higher education landscape, although failure in their personal and working lives will be both unavoidable and a learning opportunity, failure is seen almost entirely negatively (not least by students): literally a waste of opportunity, time and money. Nicola Whitton, a passionate advocate of playful learning, however, sees it as a vital element of learning: "The ability to manage failure, both emotionally and practically, increases the ability to manage risk. It is only by taking risks that we can explore new possibilities and ways of thinking. We are in danger of creating a generation of risk-averse students. The possibility of failure can also actually increase a person's intrinsic motivation: if success is certain, there is little challenge and so little motivation." Aversion to failure came through strongly in the student focus group, viewed variously as a judgement of personal worth (being lazy, a loser), a potential threat to progression (a roadblock), and pressure of doing things 'right' (people pleasing, decoding expectations). Claxton (1998) found that creativity flourishes when students feel positive and free from pressure to perform. The assessment process is inevitably tied into this, and is explored further below (Getting it right). (K3, V4)

"Failing is a valuable vehicle for learning and progress … we make new discoveries if we engage with the failure."

Chrissie Nerantzi, MMU

b. Taking it personally: being a failure

The undergraduate students (and graduate) taking part in the study, felt strongly that failure was not just a setback but a judgement upon their personal worth; a very personal matter of winning or losing that affected their self esteem and belief in their ability:

Claire: How does that word (failure) make you feel?

Stevie: "Sick. It pushes you down, pushes your motivation down."

Charlie: "Like you're not good enough"

Stevie: "Yeah"

Claire: "It feels like a personal judgement on you?"

Stevie: "Yeah"

Claire: "Rather than a piece of work that hasn't quite met the grade, you take it personally?"

Sam: "It's the whole, failure is seen as - you're losing, aren't you? We don't really allow people to fail."

Jamie: "If you fail they make it seem like you didn't put any effort into it: if you tried your best and they'll make it seem like "No, that was not enough". So I think that is one of the things I do not like about that word. Because I do try with a lot of things but I just don't get it and sometimes it doesn't work, and it just makes you feel worse about it".

c. Roadblock: failure as obstacle

EFDP students, some of whom need a higher pass grade than others to progress onto a particular route, felt a particular fear around taking risks with their learning if it had the potential to jeopardise their study path:

Charlie: "If I fail a module this year, that's a roadblock to me getting on to next year, so the word 'fail' is associated with making things ten times harder for you."

Stevie: "It depends what's at risk as well. So I suppose that we're on extended foundation: if we don't get what we need then we don't get to do the course we want to do."

Charlie: "Yeah, there's a lot of pressure."

Stevie: "So you take risks, but only to a certain extent."

Charlie: "...because it's so easy to lose the path you want to go on you're less likely to take risks."

d. Perfectionism

Fear of 'getting it wrong' has been found to be a stumbling block for both students and teachers when it comes to embracing playful learning – or any other mode of learning that doesn't fit into a pass/fail system (Rice, 2009). This was another strand that came through quite strongly in the focus group as students reflected on their attitudes to being assessed:

Ali: "I think one of the biggest obstacles to creativity is that there's a right way and a wrong way to do things ... some assignments, you know, you can be your own biggest enemy when it comes to being creative because you worry so much about getting it wrong And you worry about what the lecturer's expecting... I suppose it's the fear of being judged, isn't it?"

Claire: "Do you play it safe if the grade is at stake?"

Charlie: "Definitely."

Stevie: "It's not worth the risk."

There is clearly a leaning toward extrinsically motivated learning - getting on the right path, getting the grades – with creativity sacrificed on the altar of exam grades. But within the 'magic circle' of play, it is intrinsically motivated engagement that leads to a lifelong love of learning and self-actualisation (Whitton, 2016, Bulunuz, 2015, Dweck, 2010). Hennessey and Amabile (1987) found that giving rewards for work limited creativity, as did too much teacher surveillance. White (2018) agrees: "Until our students hold responsibility for exploring, elaborating, curating, expressing and reflecting on their own ideas, they will not move beyond what they think we want them to imagine or creating what they hope will satisfy us." The question going forward is how are we to navigate this tension between rigorous assessment and laying the knowledge base students will need in their careers while also providing a learning environment conducive to creating the soft skills, such as creative thinking, desired by industry? White believes the answer is in more student self-assessment, with educators role to provide an environment that supports this, with six important conditions: Purpose, Punctuate, Prompt, Pause, Patterns and (No) Praise (avoiding extrinsic motivation). Some colleagues are already finding ways to address this quandary. Indeed, by 'entering the playground', using, for instance, role play simulations (DeNeve and Heppner, 1997), games (Whitton, 2009) or mobile technology (Gikas and Grant, 2013) we can enable students to experiment and solve problems away from the consequences of assessment. (A3, K2, K3, K4, V1, V3, V4)

Risk and failure: It's not all doom and gloom

There was however an acknowledgement amongst students that 'failure' is more accepted in other realms, and can be not only inevitable but a valuable learning opportunity - an attitude that could transfer to higher education if viewed with a growth mindset, a playful attitude and, crucially, the support of the institution.

Sam: "If you looked at it in a different way, rather than seeing it as failure, I guess - I used to skateboard and you'd fail hundreds of times a day. You'd fall off so many times and you'd still get back up, and you didn't see that as a failure, you just didn't think about it. But I guess we see this (study) as such a serious thing - if it comes to work and learning then you're terrified of it (failing), whereas if it's more playful and it's not seen as so serious, then you're probably more prepared to fail."

Stevie: "Some people see failure as learning."

Sam: "That's how you're taught, that failing is a bad thing ... when in reality a lot of good things come from failing."

I would suggest, on the basis of these views, that reframing failure as persevering toward a goal, or experimentation, even building planned failure into projects, being clear about our expectations, and, echoing Whitton (2016) radically rethinking how we assess, more students would rise to the challenge. My participants also indicated they were more likely to accept and join in with an unusual lesson, even if they felt they might struggle with it, if the lecturer explained why they were using that approach.

Claire: "... if the lecturer's taking a slightly more unusual approach does it help if they explain why they're doing it and what the purpose is?"

Sam, Stevie and Charlie: (emphatically): "Yes." (Other participants nodded).

Crowded curriculum

Undergraduate participants speculated that lack of contact time could be a barrier to creating more playful sessions:

Charlie: "If lecturers have got pressure to get everything done in a certain time then perhaps, because this is a lengthier process, despite the fact it IS better, they may be more reluctant to use it. Obviously they can cram a lot more in if they're just stood there talking to you."

Dairy Crest participant: "... it takes more time - but you possibly get more out of it so it's worthwhile."

There is some truth in this – while the sessions themselves may not run over a longer period of time, the lesson planning and assessment could indeed take longer, as my colleague Emma Tappin acknowledges, whilst feeling the results are worth the increased effort on her part. And with the issue of workloads and workplace stress this is no small consideration.

However, I would argue that the social constructivist emphasis of playful learning encourages student agency and, with Richardson and Mishra's (2018) recommendation that teachers act as "facilitators, co-learners or guides that question, learn and experiment alongside their students" in a collaborative atmosphere, this could mean no more time needs to be devoted than is the norm. And, as Simon Allen (page 24) points out, less can be more: a little playfulness, where appropriate, can go a long way. Small efforts can make a big difference: Whitton (2018) reports vastly increasing conference delegate feedback by making the forms into paper aeroplanes participants could 'fly' into a basket. Prof. Mark Schofield's active learning toolkit, disseminated at the 2018 Spring Learning and Teaching Conference, included many ideas for active, playful learning, from one-minute papers to students constructing their own quizzes. (A1, A2, A4, A5, K2, K4)

Frivolous play?

"(Using play and playful) may be off-putting in a business environment: perhaps (call it) something like 'interactive connective creativity' (instead)"? Dairy Crest participant

James and Brookfield (2014), whose long teaching careers have been stamped with a spirit of "humour, light heartedness, and openness of the curious enquirer" note the fear of being thought trivial that often drives a wedge between learning, work and playfulness. Dairy Crest staff, while overwhelmingly positive about the playful approach and creative content of the session, acknowledged that it could be viewed less positively by colleagues/managers. "It may be perceived by others not on the session as a bit of a skive," said one, reflecting on the mindful colouring-in element of the session they had responded so positively to: "I suspect there will be those who think, 'what a skiver, spending the afternoon colouring in, when some of us have been busy doing proper work'".

The words 'play' and 'playfulness' can themselves form barriers to engagement, smacking of triviality, childishness or frivolity, with some preferring terms such as 'serious play' or 'hard fun' to reduce this stigma (Whitton, 2018) while benefiting from the playful activity itself. In my own research this was the case with the industry staff but not undergraduates. One participant remarked: "(The word playful) does on first impression make the session sound a little trivial and less professional/work-like. However the session content and learnings DID prove to be valuable and potentially productive in the work environment." Another added: "It's not off-putting but I think upon first impressions, yes it sounds less valuable because formally 'play' is not associated with 'work'. But in hindsight I think a 'play' environment does get the best and most original ideas."

I discussed this with Mark Schofield after his engaging talk on active learning (sharing much of playful learning's DNA) at the Learning and Teaching Conference "You can call it anything" he advised; if semantics are the barrier to using an approach that may engender deep learning, what is in a name? Whitton (2018) notes that it is common for many practitioners of what could be described as playful learning not to self-identify as such. I would venture that our own Hands Free Hectare project is a good example – team member Kit Franklin told me he did not view the project as playful, but agreed it was conducted with a "what if we tried this" attitude of curiosity, openness to learn from trial and error experimentation, collaboration and willingness to take calculated risks; the very elements that playful learning promotes. It's an approach embraced by engineers as a heuristic tool (Lee and Carpenter, 2015) and our engineering department in particular, a point noted by undergraduate participants:

Charlie: "...problem solving – so you've got the Hands Free Hectare and stuff like that, I think probably came from a playful approach where people are like 'Oh, I wonder if we can do this?' So I think it can be incorporated into a lot of things."

Sam agreed, raising the subject of flow, the concept of concentrated absorption coined by Csikszentmihalyi (2011) and a key element of the playful approach.

"Look at the engineers – they're always playing – they probably don't see it as play but they're in the workshop and they're fiddling with things constantly, changing things. They're in such a state, they're in that zone state, they're so focused on what they're doing but they're playing aren't they?"

Øksnes, 2013, likens play to this state of flow, describing it as a way to become forgetful and open to the unknown. What brings lasting value to this approach is reflection – allowing students the space and support to explore their own learning process - as Mark Schofield made clear; likewise James and Brookfield (2014).

(A2, A4, K2, K3, K4)

WHAT'S THE IMPACT?

As well as positive responses to creativity and playfulness I've drawn four main learning outcomes from my research:

Peer relationships

Through this project I have, in McNiff's parlance (2017) worked collaboratively with colleagues "to raise our collective tacit knowledge about our shared values" and have learned much from their experience - publishing this is a way of giving back a little. I've realised this playful approach is already being used by lecturers and support staff across the university, though they may not call it such, which gives me more confidence in using it, knowing that students are already primed to learn in different ways, and the university is seeing good results that fit within its ethos. Thinking creatively came through less strongly, but the positive responses in my research sessions has strengthened my belief that this is a useful, indeed vital, skill for students to acquire.

Risking my failure

The antipathy to failure that came through so strongly in the student focus group made me question not only the way in which we assess students and the role of universities (issues far beyond the scope of this project but worth exploring further) but my own fear of negative judgement; something I can work on. I believe, intellectually, that perceived failure is an opportunity for learning, but I personally need to embrace the concept in action - and to explore how this affects the intellectual risks I'm prepared to take in developing my teaching practice, within the university's framework.

Stories are valuable

As a writer, storytelling as a valid form of research (McNiff, 2017) appealed to me, and I was heartened to note participants' appreciation of stories as a teaching tool (pg 17) and their enthusiastic seizing of the opportunity, through the focus group, to share "stories of their own improved understanding as outcomes" (McNiff, 2017), constructing collective knowledge and increased confidence in their abilities. Their level of self-reflection was impressive. These stories, reflecting their positive reactions to the research sessions, has buoyed my belief that introducing opportunities to playfully develop creative thinking (and utilising storytelling) should be woven into lessons where appropriate.

The next steps

The study has highlighted many areas for further exploration and development. My next step is to actively incorporate this active approach into my teaching and observe how it translates in practice. It would be beneficial to create a pedagogical interest group around creative and playful practice. From this, time allowing, I would like to create a second magazine that highlights more of the active teaching taking place at Harper Adams. With colleagues' support (and within HAU's framework) I hope to further explore play projects,as described on page 13.

Validity

I have tried to be objective during this research, informing participants of its purpose, process and audience, considering ethics, and questioning my subjective responses whilst analysing the data, and checking if the transcript could be interpreted differently. It could - everything is open to unconscious bias – but I've tried to maintain transparency; including many of the participants' verbatim responses here for the reader's interpretation, and checking for contradictory opinions. I may have taken a greater role in the focus group than is ideal, but this was partly due to the playful rapport we'd built during the session. I tried not to 'lead' the discussion other than posing pre-prepared questions shared with students before the session, clarifying points and moving the conversation on from a lull. Of 14 participants I invited five, who I had taught but not formally assessed – chosen not for their creativity or playfulness, but willing engagement in class. All others were unknown to me. Responses to the session may have varied with different students/staff, year groups, ages, subjects studied, work roles, etc. Going back to the student comment that triggered this research (pg 3) one can assume this approach won't appeal to all.

Given the comments around risk/failure, their response may have differed if the session was perceived to be graded rather than extracurricular – this bears on how the approach may translate to taught modules.

Participants may have conflated playfulness and creativity when assessing their enjoyment of the learning. In the future it would be interesting to teach a creative session without being playful, and take a playful approach with a less creative subject, to further explore responses to each element.

HOW WE PL*Y

Students are enjoying a wide range of imaginative learning opportunities at Harper Adams, making learning fun, challenging and memorable, and equipping them with versatile life and work skills. Here is a small selection of these approaches.

Active learning with Simon Allen

"I am keen for students to be engaged enough to go away and do something about what they've learned; not simply turn up and open their lecture-file on a weekly basis. I encourage them to explore the topic using all the resources that Harper offers (out in the field; talking to agronomists or farm managers; YouTube clips; tutors; library, etc.). Techniques such as 'playful learning' can keep the subject 'alive' without demeaning or belittling the topic, but in my experience, need to be used sparingly. Overuse, and you risk appearing to be 'trying too hard'. A slippery slope to inattention, chat and poor attendance.

"This approach works for me and the subjects that I teach. Unquestionably, it is not something that will work with all colleagues, all of the time. I see it as simply another 'tool' that helps me keep my lectures interesting and hopefully, from the student's perspective, worthwhile too."

The Chicken Apprentice

Philip Robinson endeavours to create a relaxed, enjoyable learning environment. His 'Chicken Apprentice' session, aping the BBC's long-running business challenge, is a great example of playful learning, helping teams of undergraduates work together to learn about poultry health and nutrition in a highly memorable and competetive way.

Using YouTube

Andrew Black encourages 1st year REALM and RPM students to engage with technology in a fun way that teaches real world skills: making and publishing their own videos promoting a fictitious auction mart.

Other staff ideas

Rachel Baugh's use of wikis with distance learning students.

Becky Payne's inspired use of quizzes, polls and anecdotes.

VNs role playing with clients.

Commercial leaflet creation

I was very impressed with the professionalism of the leaflets designed by Wildlife Ecology and Conservation Management students. Through these leaflets, promoting organisations such as the National Trust and Shropshire Wildlife Trust, Nicky Hunter has found an active way to engage students in a real world task that develops their skills in understanding clients' needs, writing briefs, research, communication, design, organisation, writing, presentation and meeting deadlines, and forging links with industry.

Image from student project, courtesy of N.Hunter

PLAYFUL LEARNING CONFERENCE 2018

The Playful Learning Conference at Manchester Metropolitan University is pitched at the intersection of learning and play for adults. Playful in approach and outlook, yet underpinned by robust research and working practices, it provides a space where teachers, researchers and students can play, learn and think together. A space to meet other playful people and be inspired by talks, workshops, activities and events. There is a strong emphasis on games, both analogue and digital, and on fostering curious, imaginative approaches to teaching and learning.

How To Fail Your Research Degree

This educational board game was developed by Daisy Abbott, of Glasgow School of Art, to help postgraduate students learn how NOT to fail their research degree by teaching them research processes and techniques. Evaluation has shown that the game is very successful at delivering the intended learning outcomes and is a memorable and enjoyable complement to the existing course curriculum.

A dozen of us played the game in teams at the conference and I can attest to its enjoyability and effectiveness. Although this version – available online to buy or download and print yourself - is directed at postgrad researchers, there is potential to adapt it to any context that is project-like such as essay writing or other academic skills.

www.howtofailyourresearchdegree.com/

Games jam - creating your own educational games

Edinburgh University's Stephanie (Charley) Farley and Eva Murzyn ran a Games Jam session at the conference, in which delegates came together to create, license and share an educational game on the university's OER website, which has a plethora of resources and ideas for teachers to use, adapt and create their own educational games. It was astonishing how quickly small groups with very different backgrounds came up with interesting games formats (using a variation of the two objects approach), discussing and pooling their ideas and experiences to create something none of us would have come up with individually. Our game posed moral dilemmas for students to discuss and progress through the game by sharing ideas and working collaboratively. I could see this being used to explore issues around farming, food production, ethics, animal husbandry, and other subjects. The Games Jam format would be a great session to run with students, giving them the opportunity to work creatively in teams, or with staff, providing a forum to share ideas across subjects, share resources and work collegiately.

http://open.ed.ac.uk/

> **"Play is a fundamental and lifelong activity that is often misunderstood in the context of higher education"**
>
> **James and Brookfield Engaging Imagination (2014)**

REFERENCES

a

Abrahamson, C.E. 1998. Storytelling as a Pedagogical Tool in Higher Education. Education, Vol. 118, No. 3.

Arnab, S. 2016. Re-Mixing Play. sylvesterarnab.com/2016/07/07/re-mixing-play/

b

Barrett, H. 2017. Business schools take a playful approach to leadership. Financial Times, 14 May 2017.

Benmayor, R. 2008. Digital Storytelling as a Signature Pedagogy for the New Humanities. Arts and Humanities in Higher Education, Vol 7 (2).

Bohm, D. (1968) On Creativity. Routledge.

Brown, S. 2009. Play: How it shapes the brain, opens the imagination, and invigorates the soul. New York: Penguin.

Budd, R. (2017) Undergraduate orientations towards higher education in Germany and England; problematizing the notion of 'student as customer'. Higher Education, Vol 73, No. 1, 23-37

Bulunuz, M. (2015). The role of playful science in developing positive attitudes toward teaching science in a science teacher preparation program. Eurasian Journal of Education Research. Vol 58, pp67-88.

Bunce, D.M., Flens, E.A, and Neiles, K.Y. 2010. How Long Can Students Pay Attention in Class? A Study of Student Attention Decline Using Clickers. Journal of Chemical Education, vol 87 (12), pp 1438–1443

c

Camahalan, F.M.G. and Ipock, A.R. 2015. Physical Activity Breaks and Student Learning: A Teacher-Research Project. Education, v135 n3 p291-298 Spring 2015

Campbell, A. (2014) Scientists outshine arts students with experiments in creative writing. The Guardian, books blog.

Cantwell, M. 2013. Be a Free Range Human: Escape the 9-5, Create a Life You Love and Still Pay the Bills. Kogan Page.

Chan, S. and Yuen, M. 2014. Personal and environmental factors affecting teachers' creativity-fostering practices in Hong Kong. Thinking Skills and Creativity, 12, 69-77.

Claxton, G.L. 1998. Knowing without knowing why: investigations into human intuition. The Psychologist, Vol 11, pp 217-220.

Corbeil, P. 1999. Learning from the children: Practical and theoretical reflections on playing and learning. Simulation and Gaming, vol 30 (2), pp 163-180.

Csikszentmihalyi, M. (1992) Flow: The psychology of happiness. London: Rider

Cuddy, Amy J.C., Caroline A. Wilmuth, and Dana R. Carney. The Benefit of Power Posing Before a High-Stakes Social Evaluation. Harvard Business School Working Paper, No. 13-027, September 2012.

d

De Koven, B. (2014) A Playful Path, ETC Press, Halifax, Nova Scotia.

DeHaan, R.L. (2009) Teaching creativity and inventive problem solving in science. CBE – Life Science Education, 8 (3), pp 172-181.

DeNeve, K.M. and Heppner, M.J. 1997. Role play simulations: The assessment of an active learning technique and comparisons with traditional lectures. Innovative Higher Education, Vol 21 (3) pp 231–246

Dewett, T. 2011. Exploring the Role of Risk in Employee Creativity. The Journal of Creative Behavior, Volume 40, Issue 1

Dix, A. 2003. being playful - learning from children. www.hcibook.com/Alan/papers/IDC2003/

Donnelly, R. 2004. Fostering of creativity within an imaginative curriculum in higher education. The Curriculum Journal, vol 15 (2), pp 155-166.

Dweck, C.S. 2006. Mindset: The New Psychology of Success. New York: Random House.

f

Felston, G. 2009. Where to take a study break on the college campus: An attention restoration theory perspective. Journal of Environmental Psychology, Vol 29 (1) pp 160-167

Futter, D. 2018. My God, It's full of stories. ImagineEd, 10 April, 2018. www.educationthatinspires.ca/2018//04/10/my-god-its-full-of-stories/engineers

g-h

Gibson, R. 2010.The 'art' of creative teaching: Implications for higher education. Teaching in Higher Education, 15 (5), 607-613.

Gikas, J. and Grant, M.M. 2013. Mobile computing devices in higher education: Student perspectives on learning with cellphones, smartphones & social media. The Internet and Higher Education, Vol 19, pp 18-26

Haack, S. 2016. Serious Philosophy. Spazio filosofico 18, 395-407. papers.ssrn.com/sol3/papers.cfm?abstract_id=2888088

Hennessey, B.A. and Amabile, T. (1987) Creativity and Learning. Washington DC: NEA Professional Library, National Education Association.

Huizinga, J. 1955. Homo Ludens: A Study of the Play Element in Culture. Beacon press, Boston, MA.

i-j

IYF 2018. www.iyfnet.org/blog/why-creativity-matters-life-skill

James, A. and Brookfield, S.D. (2014) Engaging Imagination. Helping students become creative and reflective thinkers. Jossey-Bass, San Francisco.

James, A. 2013. Lego Serious Play: a three-dimensional approach to learning development. Journal of Learning Development in Higher Education. Issue 6: 11/13

Jeder, D. 2015. Implications of using humour in the classroom. Procedia -Social and Behavioural Sciences, vol 180, pp 828-833.

Jonassen, D.H. and Hernandez-Serrano, J. 2002. Case-based reasoning and instructional design: Using stories to support problem solving. Educational Technology Research and Development, Vol 50 (2) pp 65–77 |

Judson, G. 2017. Play matters: Six play-full practices for higher education. The Creativity Post, 4 May 2017.

k-l

Kane, P. 2004. The Play Ethic. Macmillan.

Katz, L. (2015) Square pegs: Creativity on campus needs an urgent re-think. www.creativeacademic.uk/blog

Lameras, P., Tsiatsos, T., Petridis, P., Tolis, D., Liarokapis, F., Anastasiadou, D., Protopsaltis, A., Hendrix, M., and Annabelle, S. 2015. Creative thinking experimentations for entrepreneurship with a disruptive, personalised and mobile game-based learning ecosystem. 2015 International Conference on Interactive Mobile Communication Technologies and Learning (IMCL): 348-352.

Langan, A.M., and Smart, F. (2018) Playful Learning. Research in Learning Technology, Vol 26.

Lean, J., Illingworth, S., and Wake, P. (2018). Unhappy families: using tabletop games as a technology to understand play in education. Research in Learning Technology, Vol 26.

Lee, S. and Carpenter, R. 2015. Creative thinking for 21st century composing practices: Creative pedagogies across disciplines (special issue on the WAC, WID, and the performing and visual arts). Across the Disciplines, 12 (4).

Lieberman, J.N. 1965. Playfulness and divergent thinking: An investigation of their relationship at the kindergarten level. Journal of Genetic Psychology, vol 107 (1), 219-224

m

Martins, E., & Terblanche, F. (2003). Building organisational culture that stimulates creativity and innovation. European Journal of Innovation Management, 6(1), 64–74.

McMillan, C., Loads, D. and McQueen, H.A. From students to scientists: The impact of interactive engagement in lectures. New Directions in the Teaching of Physical Sciences, Volume 13 (1).

McNiff, J. 2017. Action Research: All You Need To Know. Sage: London.

Moseley, A. and Whitton, N. 2015. Innovative pedagogical series: Playful learning. Using games to enhance the student experience. HEA

n

Naidoo, R. and Williams, J. (2014). The neoliberal regime in English higher education: characters, consumers, and the erosion of the public good. Critical Studies in Education, Vol 2, 208-223

Nerantzi, C. 2016. Learning to play, playing to learn: The rise of playful learning in higher education. DigiFest, 2016.

Nørgård, R.T, Toft-Nielsen, C. and Whitton, N. 2017. Playful learning in higher education: developing a signature pedagogy. International Journal of Play, Vol 6 (3), pp 272-282

Norris, R. 2018. Creativity can be taught to anyone. So why are we leaving it to private schools? The Guardian, 17 Jan 2018.

o-p

Øksnes, M. 2013. We sneak off to play when we want. In E. Ryall, W. Russell, and M. MacLean (eds. The philosophy of play. Routledge.

Perry, A. and Karpova, E. (2017). Relationships between creativity and its antecedents before and after training: The role of risk-taking and past creative experience. Theories – Research - Applications, 4, 1.

Pouliot, S. 2013. Contemporary issues in teaching and learning: creativity and the classroom. Retrieved from: fsu.academia.edu/StacyPouliot

Proyer, R.T. 2011. Being playful and smart? The relations of adult playfulness with psychometric and self-estimated intelligence and academic performance. Learning and Individual Differences, vol 21 (4), pp 463-467

r

Rabobank, 2015. What's cooking in tomorrow's kitchen? Report available at: 3dfoodprintingconference.com/research/whats-cooking-in-tomorrows-kitchen-by-rabobank/

Rhodes, M. 1961. An analysis of creativity. Phi Delta Kappan, 42 (7), 305-310

Rice, L. (2009). Playful Learning. Journal for Education in the Built Environment Vol. 4, Iss. 2, 2009

Richardson, C. and Mishra, P. 2018. Learning environments that support student creativity: Developing the SCALE. Thinking Skills and Creativity, 27, 45-54.

Richardson, H. 2010. Students only have a 10-minute attention span. Retrieved from news.bbc.co.uk/2/hi/uk_news/education/8449307.stm

Rieber, L. P. (2001). Designing learning environments that excite serious play. www.nowhereroad.com/seriousplay/Rieber-ASCILITE-seriousplay.pdf

Robinson, K (1999). All our futures: Creativity, culture and education. Report. www.sirkenrobinson.com/pdf/allourfutures.pdf

Robinson, K. (2010). Changing Education Paradigms.

Robinson, K. (2011) Out of our minds: Learning to be creative. Chichester, UK. Capstone.

s-t

Schmidt M, Benzing V, Kamer M. Classroom-Based Physical Activity Breaks and Children's Attention: Cognitive Engagement Works! Frontiers in Psychology. 2016;7:1474. doi:10.3389/fpsyg.2016.01474.

Smith, S and Henriksen, D. 2016. Fail Again, Fail Better: Embracing Failure as a Paradigm for Creative Learning in the Arts, Art Education, 69:2, 6-11. dx.doi.org/10.1080/00043125.2016.1141644

Sutton-Smith, B. (1999) The Ambiguity of Play. Harvard.

The Future of Work: Jobs and Skills in 2030 (2014). www.gov.uk/government/publications/jobs-and-skills-in-2030

Thorstead, A.C., Gronbeck Bing, R., and Kristensen, K. 2015. Play as mediator for knowledge creation in Problem Based Learning. Journal of Problem Based Learning in Higher Education, Vol 3 (1), pp 63-77.

Trilling, B. & Fadel, C. (2009). 21st Century Skills: Learning for Life in Our Times, Jossey-Bass, San Francisco, CA.

W

Wagner, T. 2010. The global achievement gap: Why even our best schools don't teach the new survival skills our children need – and what we can do about it. New York: Basic Books.

Walsh, A. Playful information literacy: Play and information literacy in higher education. Nordic Journal of Information Literacy in Higher Education, Vol 7 (1), pp 80-94

Walsh, A. and Clementson, J. 2017. Reasons to play in higher education. In: The Power of Play – Voices From The Play Community. CounterPlay, Aarhus, Denmark, pp 181-187. eprints.hud.ac.uk/31686/

Wedoe, L. (2001) Science and play- oil and water? Paper presented at the International Council for Children's Play, Erfurt

White, K. 2018. Using self-assessment to power imagination and creativity. ImaginED, March 2018. www.educationthatinspires.ca/2018/03/28/using-self-assessment-to-power-imagination-and-creativity/

Whitton, N. 2009. Learning with Digital Games. A Practical Guide to Engaging Students in Higher Education. Routledge: New York.

Whitton, N. 2018. Playful learning: tools, techniques and tactics. Research in Learning Technology, Vol 26.

Williams, J. 2010. Screw Work, Let's Play: How to Do What You Love and Get Paid for It. Pearson Business.

World Economic Forum (2016). Future of Jobs Report. weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fourth-industrial-revolution/

SHARING PRACTICE

USING THE TWO OBJECTS APPROACH IN YOUR CLASS TO ENCOURAGE CREATIVITY

Anyone can use this game to help students to think creatively. While it will lend itself more to some subjects than others, joining together two objects (in what Michael Bloomfield calls the building blocks of creativity, and Albert Einstein covered within the term 'combinatory play') can be adapted to most fields of study.

You will need: 30 object names divided into five lists of six, dice, and about 45 minutes

Simply think of a problem you wish students to address. It could, perhaps, be a new foodstuff, a toy for companion animals, a new product to market, or a vehicle part. It's not necessarily important whether the solution they come up with is practical or could be sold/used in the real world (although some ideas could fulfil this function). The exercise is really intended to encourage use of imagination, and thinking beyond the norm.

The Game of Creativity
Alternatively you could buy a set of cards from the Kickstarter-funded project (pictured left). Any time you're stuck on a project, simply flip two cards over and work out your thoughts on how your problem could be solved with a combination of the cards. Or get your students to make their own!
www.thegameofcreativity.com

"CREATIVITY IS JUST CONNECTING THINGS"

Steve Jobs

STANDING ON THE SHOULDERS OF GIANTS
Creativity and play are naturally collaborative endeavours and I have enjoyed great support with this project. Grateful thanks go to James Armstrong for his beautiful artwork, creative inspiration and unwaning support. To my wise and wonderful mentors: Becky Payne (who made this possible), Emma Tappin and Zorka Besevic. Lydia Arnold's inspiring teaching and wise counsel. The support of the Marketing team. Harper students and Dairy Crest staff whose voices form the core of this research. Simon Hunt for the Spark Space and cheese. Harper colleagues, felllow PgCers, students, friends and the ALT forum for the many interesting conversations. Zack Polanski and Alison Knowles for giving me a different perspective. Dr Michael Bloomfield for designing the life-changing creativity session that inspired my methodology. And my family for their patience, generosity and support.


GAME OVER
CONTINUE?
YES NO
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